

TIPS VENDOR AGREEMENT

Between Johnson Controls, Inc. and
(Company Name)

THE INTERLOCAL PURCHASING SYSTEM (TIPS)

For

RFP 180203 Renewable Energy and Solar Solutions and Services
Part 2

General Information

The Vendor Agreement (“Agreement”) made and entered into by and between The Interlocal Purchasing System (hereinafter referred to as “TIPS” respectfully) a government cooperative purchasing program authorized by the Region 8 Education Service Center, having its principal place of business at 4845 US Hwy 271 North, Pittsburg, Texas 75686. This Agreement consists of the provisions set forth below, including provisions of all Attachments referenced herein. In the event of a conflict between the provisions set forth below and those contained in any Attachment, the provisions set forth shall control.

The vendor Agreement shall include and incorporate by reference this Agreement, the terms and conditions, special terms and conditions, any agreed upon amendments, as well as all of the sections of the solicitation as posted, including any addenda and the awarded vendor’s proposal. Once signed, if an awarded vendor’s proposal varies or is unclear in any way from the TIPS Agreement, TIPS, at its sole discretion, will decide which provision will prevail. Other documents to be included are the awarded vendor’s proposals, task orders, purchase orders and any adjustments which have been issued. If deviations are submitted to TIPS by the proposing vendor as provided by and within the solicitation process, this Agreement may be amended to incorporate any agreed deviations.

The following pages will constitute the Agreement between the successful vendors(s) and TIPS. Bidders shall state, in a separate writing, and include with their proposal response, any required exceptions or deviations from these terms, conditions, and specifications. If agreed to by TIPS, they will be incorporated into the final Agreement.

A Purchase Order, Agreement or Contract is the TIPS Member’s approval providing the authority to proceed with the negotiated delivery order under the Agreement. Special terms and conditions as agreed to between the vendor and TIPS Member should be added as addenda to the Purchase Order, Agreement or Contract. Items such as certificate of insurance, bonding requirements, small or disadvantaged business goals are some of the addenda possible.

Terms and Conditions

Freight

All quotes to members shall provide a line item for cost for freight or shipping regardless if there is a charge or not. If no charge for freight or shipping, indicate by stating "No Charge" or "\$0" or other similar indication.

Warranty Conditions

All new supplies equipment and services shall include manufacturer's minimum standard warranty unless otherwise agreed to in writing. Vendor shall be legally permitted to sell, or an authorized dealer, distributor or manufacturer for all products offered for sale to TIPS Members. All equipment proposed shall be new unless clearly stated in writing.

Customer Support

The Vendor shall provide timely and accurate customer support to TIPS Members. Vendors shall respond to such requests within one (1) working day after receipt of the request. Vendor shall provide training regarding products and services supplied by the Vendor unless otherwise clearly stated in writing at the time of purchase. (Unless training is a line item sold or packaged and must be purchased with product.)

Agreements

All Agreements and agreements between Vendors and TIPS Members, unless otherwise agreed by the parties, shall strictly adhere to the statutes that are set forth in the Uniform Commercial Code as most recently revised for the jurisdiction of the TIPS Member.

Agreements for purchase will normally be put into effect by means of a contract, agreement or purchase order(s) executed by authorized agents of the participating government entities.

Davis Bacon Act requirements will be met when Federal Funds are used for construction and/or repair of buildings or as otherwise required by applicable statute or regulation.

Other Wage Rates may be required by some TIPS Members and acceptance of a projects by the Vendor may require the Vendor to comply with the TIPS Member's required wage rate.

Tax exempt status

A taxable item sold, leased, rented to, stored, used, or consumed by any of the following governmental entities is exempted from the taxes imposed by this chapter:(1) the United States; (2) an unincorporated instrumentality of the United States; (3) a corporation that is an agency or instrumentality of the United States and is wholly owned by the United States or by another corporation wholly owned by the United States;(4) the State of Texas; (5) a Texas county, city, special district, or other political subdivision; or (6) a state, or a governmental unit of a state that borders Texas, but only to the extent that the other state or governmental unit exempts or does not impose a tax on similar sales of items to this state or a political subdivision of this state. Texas Tax Code § 151.309. Most TIPS Members are tax exempt and the related laws of the jurisdiction of the TIPS Member shall apply.

Page 2 of 12

Assignments of Agreements

No assignment of Agreement may be made without the prior written approval of TIPS. Payment can only be made to the awarded Vendor or vendor assigned dealer.

Disclosures

1. Vendor affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with this Agreement.
2. Vendor shall attach, in writing, a complete description of any and all relationships that might be considered a conflict of interest in doing business with Members in the TIPS program.
3. The vendor affirms that, to the best of his/her knowledge, the offer has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this Agreement.

Renewal of Agreements

The Agreement with TIPS is for one (2) year with an option for renewal for additional two (2) consecutive year. Total term of Agreement can be up to the number of years provided in the solicitation or as limited by statute. The option renewal year one shall be automatically renewed unless either party objects or terminates the agreement as provided herein at "**Termination for Convenience**".

No Agreement for goods or services with a TIPS Member by the awarded vendor named in this Agreement that results from the solicitation award named in this Agreement, may incorporate an automatic renewal clause with which the TIPS Member must comply. All renewal terms incorporated in an Agreement by the vendor with the TIPS Member shall only be valid and enforceable when the vendor receives written confirmation by purchase order or executed Agreement issued by the TIPS Member for any renewal period. The purpose of this clause is to avoid a TIPS Member inadvertently renewing an Agreement during a period in which the governing body of the TIPS Member has not properly appropriated and budgeted the funds to satisfy the Agreement renewal. This term is not negotiable and any Agreement between a TIPS Member and a TIPS awarded vendor with an automatic renewal clause that conflicts with these terms is rendered void and unenforceable.

Shipments

The Vendor shall ship ordered products within a commercially reasonable time after the receipt of the order. If a product cannot be shipped within that time, the Vendor shall notify TIPS and the requesting entity as to why the product has not shipped and shall provide an estimated

shipping date, if applicable. TIPS or the requesting entity may cancel the order if estimated shipping time is not acceptable.

Invoices

The awarded vendor shall submit invoices or payment requests to the TIPS Member participating entity clearly stating "Per TIPS Agreement # xxxxxx. Each invoice or pay request shall include the TIPS Member's purchase order number or other identifying designation as provided in the order by the TIPS Member. If applicable, the shipment tracking number or pertinent information for verification of TIPS Member receipt shall be made available upon request. The Vendor or vendor assigned dealer shall not invoice for partial shipments unless agreed to in writing in advance by TIPS and the TIPS Member.

Payments

The TIPS Member will make payments directly to the Vendor or vendor assigned dealer at net 30 days after receiving invoice or in compliance with applicable statute, whichever is the lessor time or as otherwise provided by an agreement of the parties.

Pricing

The Vendor agrees to provide pricing to TIPS and its participating governmental entities that is at least equal to the lowest pricing available to like cooperative purchasing customers and the pricing shall remain so throughout the duration of the Agreement. Price increases will be honored according to the terms of the solicitation. However, the Vendor shall honor previous prices for thirty (30) days after written notification to TIPS of an increase, except any price changes related to the, then current, RS Means Unit Price Book is valid. Price of a specific Job Order Contract proposal to a TIPS Member shall not change within 60 days of date of proposal as a result of an updated RS Means Unit Price Book unless agreed by the TIPS Member. All pricing submitted to TIPS shall include the participation fee, as provided in the solicitation, to be remitted to TIPS by the Vendor. Vendor will not show adding the fee to the invoice presented to customer. Failure to render the participation fee to TIPS shall constitute a breach of this agreement and shall be grounds for termination of this agreement and any other agreement held with TIPS.

Participation Fees

Vendor or vendor assigned dealer Agreements to pay the participation fee for all Agreement sales to TIPS on a monthly scheduled report. Vendor must login to the TIPS database and use the "Submission Report" section to report sales. The Vendor or vendor assigned dealers are responsible for keeping record of all sales that go through the TIPS Agreement. Failure to pay the participation fee will result in termination of Agreement. Please contact TIPS at tips@tips-usa.com or call (866) 839-8477 if you have questions about paying fees.

Indemnity

Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence."

Multiple Vendor Awards

TIPS reserves the right to award multiple vendor Agreements per Texas Government Code §2269 for categories when deemed in the best interest of the TIPS Membership. Bidders scoring the solicitation's specified minimum score or above will be considered for an award. Categories are established at the discretion of TIPS.

State of Texas Franchise Tax

By signature hereon, the bidder hereby certifies that he/she is not currently delinquent in the payment of any franchise taxes owed the State of Texas under Chapter 171, Tax Code.

Miscellaneous

The Vendor acknowledges and agrees that continued participation in TIPS is subject to TIPS sole discretion and that any Vendor may be removed from the participation in the Program at any time with or without cause. Nothing in the Agreement or in any other communication between TIPS and the Vendor may be construed as a guarantee that TIPS Members will submit any orders at any time. TIPS reserves the right to request additional proposals for items or services already on Agreement at any time.

Purchase Order Pricing/Product Deviation

If a deviation of pricing/product on a purchase order or contract modification occurs, TIPS is to be notified within 48 hours of receipt of order.

Termination for Convenience

TIPS reserves the right to terminate this agreement for cause or no cause for convenience with a thirty-day written notice. Termination for convenience is required under Federal Regulations

2 CFR part 200. All purchase orders presented to the Vendor by a TIPS Member prior to the actual termination of this agreement shall be honored at the option of the TIPS Member. The awarded vendor may terminate the agreement with ninety (90) days written notice to TIPS 4845 US Hwy North, Pittsburg, Texas 75686.

TIPS Member Purchasing Procedures

Purchase orders or their equal are issued by participating TIPS Member to the awarded vendor indicating on the PO "Agreement Number". Order is emailed to TIPS at tipspo@tips-usa.com.

- Awarded vendor delivers goods/services directly to the participating member.
- Awarded vendor invoices the participating TIPS Member directly.
- Awarded vendor receives payment directly from the participating member.
- Awarded vendor reports sales monthly to TIPS (unless prior arrangements have been made with TIPS to report monthly).

Form of Agreement and Reporting

If a vendor submitting an offer requires TIPS and/or TIPS Member to sign an additional agreement, a copy of the proposed agreement must be included with the proposal. In response to submitted supplemental Vendor Agreement documents, TIPS will review proposed vendor Agreement documents. Vendor's Agreement document shall not become part of TIPS's Agreement with vendor unless and until an authorized representative of TIPS reviews and approves it. TIPS does not require a review a TIPS Member's Job Order contract AIA version or other construction contract, but may, if requested by the Member. This clause does not relieve the Vendor from the responsibility to report the contract execution and the amount of the contract and any change orders.

Licenses

Awarded vendor shall maintain in current status all federal, state and local licenses, bonds and permits required for the operation of the business conducted by awarded vendor. Awarded vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of services under the Agreement. TIPS reserves the right to stop work and/or cancel Agreement of any awarded vendor whose license(s) expire, lapse, are suspended or terminated.

Novation

If awarded vendor sells or transfers all assets or the entire portion of the assets used to perform this Agreement, a successor in interest must guarantee to perform all obligations under this Agreement. TIPS reserves the right to accept or reject any new party. A simple change of name agreement will not change the Agreement obligations of awarded vendor.

Site Requirements (when applicable to service or job)

Cleanup: Awarded vendor shall clean up and remove all debris and rubbish resulting from their work as required or directed by TIPS Member. Upon completion of work, the premises shall be left in good repair and an orderly, neat, clean and unobstructed condition.

Preparation: Awarded vendor shall not begin a project for which TIPS Member has not prepared the site, unless awarded vendor does the preparation work at no cost, or until TIPS Member includes the cost of site preparation in a purchase order.

Site preparation includes, but is not limited to: moving furniture, installing wiring for networks or power, and similar pre-installation requirements.

Registered sex offender restrictions: For work to be performed at schools, awarded vendor agrees that no employee of a sub-contractor who has been adjudicated to be a registered sex offender will perform work at any time when students are or reasonably expected to be present. Awarded vendor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the purchase order at the TIPS Member's discretion. Awarded vendor must identify any additional costs associated with compliance of this term. If no costs are specified, compliance with this term will be provided at no additional charge. Safety measures: Awarded vendor shall take all reasonable precautions for the safety of employees on the worksite, and shall erect and properly maintain all necessary safeguards for protection of workers and the public. Awarded vendor shall post warning signs against all hazards created by the operation and work in progress. Proper precautions shall be taken pursuant to state law and standard practices to protect workers, general public and existing structures from injury or damage.

Smoking

Persons working under Agreement shall adhere to local smoking policies. Smoking will only be permitted in posted areas or off premises.

Marketing

Awarded vendor agrees to allow TIPS to use their name and logo within website, marketing materials and advertisement. Any use of TIPS name and logo or any form of publicity, inclusive of press release, regarding this Agreement by awarded vendor must have prior approval from TIPS.

Supplemental agreements

The TIPS Member entity participating in the TIPS Agreement and awarded vendor may enter into a separate supplemental agreement or contract to further define the level of service requirements over and above the minimum defined in this Agreement i.e. invoice requirements, ordering requirements, specialized delivery, etc. Any supplemental agreement or contract developed as a result of this Agreement is exclusively between the participating entity and awarded vendor. TIPS, its agents, TIPS Members and employees shall not be made party to any claim for breach of such agreement.

Survival Clause

All applicable software license agreements, warranties or service agreements that were entered into between Vendor and Customer under the terms and conditions of the Agreement shall survive the expiration or termination of the Agreement. All Orders, Purchase Orders issued or contracts executed by TIPS or a TIPS Member and accepted by the Vendor prior to the expiration or termination of this agreement, shall survive expiration or termination of the Agreement, subject to previously agreed terms and conditions agreed by the parties or as otherwise specified herein relating to termination of this agreement.

Legal obligations

It is the responding vendor's responsibility to be aware of and comply with all local, state and federal laws governing the sale of products/services identified in this Solicitation and any awarded Agreement thereof. Applicable laws and regulations must be followed even if not specifically identified herein.

Audit rights

Due to transparency statutes and public accountability requirements of TIPS and TIPS Members', the awarded Vendor shall, at their sole expense, maintain appropriate due diligence of all purchases made by TIPS Member that utilizes this Agreement. TIPS and Region 8 ESC each reserve the right to audit the accounting of TIPS related purchases for a period of three (3) years from the time such purchases are made. This audit right shall survive termination of this Agreement for a period of one (1) year from the effective date of termination. In order to ensure and confirm compliance with this agreement, TIPS shall have authority to conduct random audits of Awarded Vendor's pricing that is offered to TIPS Members. Notwithstanding the foregoing, in the event that TIPS is made aware of any pricing being offered to eligible entities that is materially inconsistent with the pricing under this agreement, TIPS shall have the ability to conduct the audit internally or may engage a third-party auditing firm to investigate any possible non-complying conduct. In the event of an audit, the requested materials shall be reasonably provided in the format and at the location designated by Region 8 ESC or TIPS.

Force Majeure

If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement then such party shall give notice and fully particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon, and the obligation of the party giving such notice, so far as it is affected by such Force Majeure, shall be suspended during the continuance of the inability then claimed, except as hereinafter provided, but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch.

Bonding

When applicable, performance bonds and payment bonds will be required on construction or labor required jobs. Awarded vendor will meet the TIPS Member's local and state purchasing requirements. Awarded vendors may need to provide additional capacity as jobs increase. Bonds will not require that a fee be paid to TIPS. The actual cost of the bond will be a pass through to the TIPS Member and added to the purchase order or Agreement.

Professional Engineering and Architect's Services

Professional Engineering and Architect's Services are not permitted to be provided under this Agreement. Texas statutes prohibit the procurement of Professional Engineering and Architect's Services through a cooperative agreement.

Scope of Services

The specific scope of work for each job shall be determined in advance and in writing between TIPS Member, Member's design professionals and Vendor. It is permitted for the TIPS Member to provide a general scope description, but the awarded vendor should provide a written scope of work, and if applicable, according to the TIPS Member's design Professional as part of the proposal. Once the scope of the job is agreed to, the TIPS Member will issue a PO and/or an Agreement or Contract with the Job Order Contract Proposal referenced or as an attachment along with bond and any other special provisions agreed by the TIPS Member. If special terms and conditions other than those covered within this solicitation and awarded Agreements are required, they will be attached to the PO and/or an Agreement or Contract and shall take precedence over those in this base TIPS Vendor Agreement.

Project Delivery Order Procedures

The TIPS Member having approved and signed an interlocal agreement, or other TIPS Membership document, may make a request of the awarded vendor under this Agreement when the TIPS Member has services that need to be undertaken. Notification may occur via phone, the web, email, fax, or in person. Upon notification of a pending request, the awarded vendor shall make contact with the TIPS Member as soon as possible, but must make contact with the TIPS Member within two working days.

Scheduling of Projects

Scheduling of projects (if applicable) will be accomplished when the TIPS Member issues a Purchase Order and/or an Agreement or Contract that will serve as "the notice to proceed" as agreed by the Vendor and the TIPS Member. The period for the delivery order will include the mobilization, materials purchase, installation and delivery, design, weather, and site cleanup and inspection. No additional claims may be made for delays as a result of these items. When the tasks have been completed the awarded vendor shall notify the client and have the TIPS Member or a designated representative of the TIPS Member inspect the work for acceptance under the scope and terms in the Purchase Order and/or Agreement or Contract.

The TIPS Member will issue in writing any corrective actions that are required. Upon completion of these items, the TIPS Member will issue a completion notice and final payment will be issued per the contractual requirements of the project with the TIPS Member.

Support Requirements

If there is a dispute between the awarded vendor and TIPS Member, TIPS or its representatives will assist in conflict resolution or third party (mandatory mediation), if requested by either party. TIPS, or its representatives, reserves the right to inspect any project and audit the awarded vendors TIPS project files, documentation and correspondence.

Incorporation of Solicitation

The TIPS Solicitation, whether a Request for Proposals, the Request for Competitive Sealed Proposals or Request for Qualifications solicitation, the Vendor's response to same and all associated documents and forms made part of the solicitation process, including any addenda, that resulted in the execution of this agreement are hereby incorporated by reference into this agreement as if copied verbatim.

SECTION HEADERS OR TITLES

THE SECTION HEADERS OR TITLES WITHIN THIS DOCUMENT ARE MERELY GUIDES FOR CONVENIENCE AND ARE NOT FOR CLASSIFICATION OR LIMITING OF THE RESPONSIBILITIES OF THE PARTIES TO THIS DOCUMENT.

NEW STATUTORY REQUIREMENT EFFECTIVE SEPTEMBER 1, 2017.

You certify that your company (1) does not boycott Israel; and (2) will not boycott Israel during the term of the Agreement. Texas governmental entities are prohibited from doing business with companies that fail to certify to this condition as required by Texas Government Code Sec. 2270.

You certify that your company is not listed on and we do not do business with companies that are on the Texas Comptroller of Public Accounts list of Designated Foreign Terrorists Organizations per Texas Gov't Code 2270.0153 found at <https://comptroller.texas.gov/purchasing/docs/foreign-terrorist.pdf>

You certify that pursuant to Texas Business and Commerce Code Chapter 272, as revised September 1, 2017, any construction contract or agreement as defined in the Statute with a TIPS, Education Service Center Region 8 or a Texas TIPS Member subject to the Statute shall include a Choice of Law provision providing that this agreement shall be subject to and interpreted by the Laws of the State of Texas without regard to any conflict of laws principles for any action shall be in a court of competent jurisdiction in Texas and any arbitration shall be in the State of Texas.

Page 10 of 12

Pursuant to the Texas Business and Commerce Code, as amended by the 85th Texas Legislature, this Construction Agreement for Job Order Contract services is, in the event of a dispute between the parties, subject to interpretation according to the Laws of the state of Texas only, without regard to any conflict of laws principles. Venue for any alternative dispute resolution procedure or process shall be in the state of Texas. If the dispute is litigated, venue and jurisdiction shall be in a court of competent jurisdiction in the state of Texas.

Pursuant to 85th Texas Legislative H.B. 3270, as it applies to Texas Education Code § 22.0834 et seq, the Vendor shall comply with all relevant sections related to student contact, background checks, fingerprinting and other related requirements.

Special Terms and Conditions

It is the intent of TIPS to award to reliable, high performance vendors to supply products and services to government and educational agencies. It is the experience of TIPS that the following procedures provide TIPS, the Vendor, and the participating agency the necessary support to facilitate a mutually beneficial relationship.

- **Agreements:** All vendor purchase orders and/or Agreements/Contracts must be emailed to TIPS at tipspo@tips-usa.com. Should an agency send an order direct to vendor, it is the vendor's responsibility to forward the order to TIPS at the email above within 24 business hours and confirm its receipt with TIPS.
 - **Promotion of Agreement:** It is agreed that Vendor will encourage all eligible entities to purchase from the TIPS Program. Encouraging entities to purchase directly from the Vendor and not through TIPS Agreement is a violation of the terms and conditions of this Agreement and will result in removal of the Vendor from the TIPS Program.
-

Page 12 of 12 will be the TIPS Vendor Agreement Signature Page

TIPS Vendor Agreement Signature Form

RFP 180203 Renewable Energy and Solar Solutions and Services

Part 2 JOC

Company Name Johnson Controls, Inc.

Address 5757 North Green Bay Ave., P.O. Box 591

City Milwaukee State WI Zip 53201

Phone 1-414-524-1200 Fax 1-414-524-2007

Email of Authorized Representative Brandon.L.Jackson@JCI.com

Name of Authorized Representative Brandon Jackson

Title Vice President of Branch Sales

Signature of Authorized Representative  AP

Date _____

TIPS Authorized Representative Name Meredith Barton

Title Vice-President of Operations

TIPS Authorized Representative Signature  _____

Approved by ESC Region 8  _____

Date 5/3/18

TIPS VENDOR AGREEMENT

Between Johnson Controls, Inc. and
(Company Name)

THE INTERLOCAL PURCHASING SYSTEM (TIPS)

For

PART 2 – RCSP 180203 Renewable Energy and Solar Solutions and Services

General Information

The Vendor Agreement (“Agreement”) made and entered into by and between The Interlocal Purchasing System (hereinafter referred to as “TIPS” respectfully) a government cooperative purchasing program authorized by the Region 8 Education Service Center, having its principal place of business at 4845 US Hwy 271 North, Pittsburg, Texas 75686. This Agreement consists of the provisions set forth below, including provisions of all Attachments referenced herein. In the event of a conflict between the provisions set forth below and those contained in any Attachment, the provisions set forth shall control.

The vendor Agreement shall include and incorporate by reference this Agreement, the terms and conditions, special terms and conditions, any agreed upon amendments, as well as all of the sections of the solicitation as posted, including any addenda and the awarded vendor’s proposal. Once signed, if an awarded vendor’s proposal varies or is unclear in any way from the TIPS Agreement, TIPS, at its sole discretion, will decide which provision will prevail. Other documents to be included are the awarded vendor’s proposals, task orders, purchase orders and any adjustments which have been issued. If deviations are submitted to TIPS by the proposing vendor as provided by and within the solicitation process, this Agreement may be amended to incorporate any agreed deviations.

The following pages will constitute the Agreement between the successful vendors(s) and TIPS. Bidders shall state, in a separate writing, and include with their proposal response, any required exceptions or deviations from these terms, conditions, and specifications. If agreed to by TIPS, they will be incorporated into the final Agreement.

A Purchase Order, Agreement or Contract is the TIPS Member’s approval providing the authority to proceed with the negotiated delivery order under the Agreement. Special terms and conditions as agreed to between the vendor and TIPS Member should be added as addenda to the Purchase Order, Agreement or Contract. Items such as certificate of insurance, bonding requirements, small or disadvantaged business goals are some of the addenda possible.

The Interlocal Purchasing System (TIPS Cooperative) Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Rick Powell General Counsel/Procurement Compliance Officer	Address	Region VIII Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686	Address
Email	rick.powell@tips-usa.com	Contact	Kristie Collins, Contracts Compliance Specialist	Contact
Phone	(903) 575-2689			Department
Fax				Building
Bid Number	180203			Floor/Room
Title	Renewable Energy and Solar Solutions and Services (2 PART)	Department		Telephone
		Building		Fax
Bid Type	RFP			Email
Issue Date	2/1/2018 08:02 AM (CT)	Floor/Room		
Close Date	3/16/2018 03:00:00 PM (CT)	Telephone	+1 (866) 839-8477	
		Fax	+1 (866) 839-8472	
		Email	bids@tips-usa.com	

Supplier Information

Company Johnson Controls, Inc.
 Address 10600 Colonel Glenn Road
 Suite 200
 Little Rock, AR 72204

 Contact
 Department
 Building
 Floor/Room
 Telephone (866) 630-6791
 Fax
 Email
 Submitted 3/16/2018 09:11:25 AM (CT)
 Total \$0.00

By submitting your response, you certify that you are authorized to represent and bind your company.

Signature Andrew Pergande

Email Andrew.Pergande@jci.com

Supplier Notes

Bid Notes

This is a two part solicitation for 180203 Renewable Energy and Solar Solutions and Services. Part 1 is for equipment and services including installations that are not considered a public work and Part 2 is for installation services that are public work construction related projects, such as, but not limited to, electrical or plumbing requiring engineering.

Bid Activities

Bid Messages

Bid Attributes

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the "Response Attachments" D/M/WBE CERTIFICATES section.	No
2	Yes - No	Historically Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB as defined by the State of Texas at https://comptroller.texas.gov/purchasing/vendor/hub/ or in a HUBZone as defined by the US Small Business Administration at https://www.sba.gov/offices/headquarters/ohp Proof of one or both may be submitted. Vendor must upload proof of certification to the "Response Attachments" HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	Yes
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	We provide services in all 50 states.
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	Johnson Controls delivers products, services and solutions that increase energy efficiency and lower 'operating costs in buildings for more than one million customers. Operating from 500 branch offices in more than 150 countries, we are a leading provider of renewable technologies, equipment, controls, and services for heating, ventilating, air-conditioning, refrigeration and security systems. We have been involved in more than 500 renewable energy projects including solar, wind and geothermal technologies. Our solutions have reduced carbon dioxide emissions by 16 million metric tons and generated savings of \$7.5 billion since 2000. For additional information, please visit www.johnsoncontrols.com .
6	Primary Contact Name	Primary Contact Name	Andrew Pergande
7	Primary Contact Title	Primary Contact Title	Group Purchasing Organization Manager
8	Primary Contact Email	Primary Contact Email	Andrew.Pergande@jci.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937

10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-708-6722
12	Secondary Contact Name	Secondary Contact Name	Thomas Staves
13	Secondary Contact Title	Secondary Contact Title	Sales Manager
14	Secondary Contact Email	Secondary Contact Email	thomas.staves@jci.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-443-676-8813
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Andrew Pergande
19	Admin Fee Contact Email	Admin Fee Contact Email	Andrew.Pergande@jci.com
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Andrew Pergande
22	Purchase Order Contact Email	Purchase Order Contact Email	Andrew.Pergande@jci.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
24	Company Website	Company Website (Format - www.company.com)	www.johnsoncontrols.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	39-0380010
26	Primary Address	Primary Address	5757 North Green Bay Avenue P. O. Box 591
27	Primary Address City	Primary Address City	Milwaukee
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	Wisconsin
29	Primary Address Zip	Primary Address Zip	53202
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	renewable energy, solar, solar photovoltaic, solar panel, microgrid, wind turbine, energy storage, geothermal heat pump, solar daylighting, biomass plant, solar thermal pool heating, solar thermal domestic water heating, solar transpired walls, battery power stationary storage, solar PV, thermal energy storage systems, ice storage, sewer heat recovery, waste heat recovery, biogas, wind power, solar power

31	Yes - No	Most of our members receive Federal Government grants and they make up a significant portion of their budgets. The members need to know if your company is willing to sell to them when they spend federal budget funds on their purchase. There are attributes that follow that are provisions from the federal regulations in 2 CFR part 200. Your answers will determine if your award will be designated as Federal or Education Department General Administrative Regulations (EDGAR)compliant. Is it your intent to be able to sell to our members regardless of the fund source, whether it be local, state or federal?	Yes
32	Yes - No	Certification of Residency (Required by the State of Texas) The vendor's ultimate parent company or majority owner: (A) has its principal place of business in Texas; OR (B) employs at least 500 persons in Texas?	Yes
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Milwaukee
34	Company Residence (State)	Vendor's principal place of business is in the state of?	Wisconsin
35	Felony Conviction Notice:	(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37) Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice: State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district or ESC 8/TIPS must give advance notice to the district or ESC 8/TIPS if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	Yes
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony?	No
38	If your firm is owned or operated by the following individual(s) who has/have been convicted of a felony:	Please provide details of the conviction. This is not necessarily a disqualifying factor and the details of the conviction determines the eligibility. Providing false or misleading information about the conviction is illegal.	N/A
39	Pricing Information:	Pricing information section. (Questions 39 - 43)	(No Response Required)

40	Discount Offered	What is the MINIMUM percentage discount off of any item or service you offer to TIPS Members that is in your regular catalog (as defined in the RFP document), website, store or shelf pricing? This is a ceiling on your pricing and not a floor because, in order to be more competitive in the individual circumstance, you may offer a larger discount depending on the items or services purchased and the quantity at time of sale. Must answer with a number between 0% and 100%.	5%
41	TIPS administration fee	By submitting a proposal, I agree that all pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing and shall be remitted to TIPS by the Vendor as agreed in the Vendor agreement. I agree that the fee shall not and will not be added by the vendor as a separate line item on a TIPS member invoice, quote, proposal or any other written communications with the TIPS member.	(No Response Required)
42	Yes - No	Vendor agrees to remit to TIPS the required administration fee? TIPS/ESC Region 8 is required by Texas Government Code § 791 to be compensated for its work and thus, failure to agree shall render your response void and it will not be considered.	Yes
43	Yes - No	Do you offer additional discounts to TIPS members for large order quantities or large scope of work?	No
44	Start Time	Average start time after receipt of customer order is ____ working days?	15
45	Years Experience	Company years experience in this category?	117
46	Resellers:	Does the vendor have resellers that it will name under this contract? Resellers are defined as other companies that sell your products under an agreement with you, the awarded vendor of TIPS. EXAMPLE: Walmart is a reseller of Samsung Electronics. If Samsung were a TIPS awarded vendor, then Samsung would list Walmart as a reseller. (If applicable, vendor should download the Reseller/Dealers spreadsheet from the Attachments section, fill out the form and submit the document in the "Response Attachments" RESELLERS section.	No
47	Prices are guaranteed for?	Vendor agrees to honor the pricing discount off regular catalog (as defined in the RFP document), website, store or shelf pricing for the term of the award?	YES
48	Right of Refusal	Does the proposing vendor wish to reserve the right not to perform under the awarded agreement with a TIPS member at vendor's discretion?	Yes

49 NON-COLLUSIVE BIDDING CERTIFICATE

By submission of this bid or proposal, the Bidder certifies that: (No Response Required)

- 1) This bid or proposal has been independently arrived at without collusion with any other Bidder or with any Competitor;
- 2) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other Bidder, Competitor or potential competitor;
- 3) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal;
- 4) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the Bidder as well as to the person signing in its behalf. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.

50 Texas HB 89- Texas Government code §2270 compliance

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq. YES

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I verify by my "YES" response to this attribute that, as a company submitting a proposal to this solicitation, that I am authorized to respond for the company and affirm that the company (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that TIPS will be notified in writing by email to TIPS@TIPS-USA.com within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall result in a "no award" determination by TIPS and if a contract exists with TIPS, be grounds for immediate contract termination without penalty to TIPS and Education Service Center Region 8.

FAILURE TO RESPOND "YES" WILL RESULT IN NO CONSIDERATION OF YOUR PROPOSAL.

I swear and affirm that the above is true and correct by a "YES" response.

- 51 CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ If you have a conflict of interest as described in this form or the Local Government Code Chapter 176, cited therein- you are required to complete and file with TIPS, Richard Powell, 4845 US Highway 271 North, Pittsburg, Texas 75686 No
- You may find the Blank CIQ form on our website at:
- Copy and Paste the following link into a new browser or tab:
<https://www.tips-usa.com/assets/documents/docs/CIQ.pdf>
- Do you have any conflicts under this statutory requirement?
- 52 Filing of Form CIQ If yes (above), have you filed a form CIQ as directed here?
- 53 Regulatory Standing I certify to TIPS for the proposal attached that my company is in good standing with all governmental agencies Federal or state that regulate any part of our business operations. If not, please explain in the next attribute question. Yes
- 54 Regulatory Standing Regulatory Standing explanation of no answer on previous question. N/A
- 55 Antitrust Certification Statements (Tex. Government Code § 2155.005) By submission of this bid or proposal, the Bidder certifies that:
- I affirm under penalty of perjury of the laws of the State of Texas that:
- (1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
- (2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
- (3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law;
- (4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.
- (No Response Required)

Instructions for Certification:

1. By agreeing to the Attribute question #56, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this

transaction originated may pursue available remedies, including suspension and / or debarment.

57 Suspension or Debarment Certification

Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

By submitting this offer and certifying this section, this bidder:
Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract as described above.

58 Non-Discrimination Statement and Certification

In accordance with Federal civil rights law, all U.S. Departments, including the U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. (Title VI of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title 7 CFR Parts 15, 15a, and 15b; the Americans with Disabilities Act; and FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities) All U.S. Departments, including the USDA are equal opportunity provider, employer, and lender.

Not a negotiable term. Failure to agree will render your

proposal non-responsive and it will not be considered. I certify that in the performance of a contract with TIPS or its members, that our company will conform to the foregoing anti-discrimination statement and comply with the cited and all other applicable laws and regulations.

59 2 CFR PART 200 Contract Provisions Explanation

Required Federal contract provisions of Federal Regulations for Contracts for contracts with ESC Region 8 and TIPS Members:

(No Response Required)

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The ESC Region 8 and TIPS Members are the subgrantee or Subrecipient by definition. Most of the provisions are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200. Others are included within 2 CFR part 200 et al.

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

60 2 CFR PART 200 Contracts

Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.
Does vendor agree?

Yes

61 2 CFR PART 200 Termination

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

Yes

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.
Does vendor agree?

62	2 CFR PART 200 Clean Air Act	<p>Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p> <p>Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.</p> <p>Does vendor agree?</p>	Yes
63	2 CFR PART 200 Byrd Anti-Lobbying Amendment	<p>Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies to the terms included or referenced herein.</p> <p>Does vendor agree?</p>	Yes
64	2 CFR PART 200 Federal Rule	<p>Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$100,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).</p> <p>Does vendor certify that it is in compliance with the Clean Air Act?</p>	Yes

65	2 CFR PART 200 Procurement of Recovered Materials	<p>A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with</p> <p>maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.</p> <p>Does vendor certify that it is in compliance with the Solid Waste Disposal Act as described above?</p>	Yes
66	Indemnification	<p>The ESC Region 8 and TIPS is a Texas Political Subdivision and a local governmental entity; therefore, is prohibited from</p> <p>indemnifying third parties pursuant to the Texas Constitution (Article 3, Section 52) except as specifically provided by law or as</p> <p>ordered by a court of competent jurisdiction. A provision in a contract to indemnify or hold a party harmless is a promise to pay for</p> <p>any expenses the indemnified party incurs, if a specified event occurs, such as breaching the terms of the contract or negligently</p> <p>performing duties under the contract. Article III, Section 49 of the Texas Constitution states that "no debt shall be created by or on</p> <p>behalf of the State ... " The Attorney General has counseled that a contractually imposed obligation of indemnity creates a "debt" in</p> <p>the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Contract clauses which require the System or institutions to</p> <p>indemnify must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas." Liquidated</p> <p>damages, attorney's fees, waiver of vendor's liability, and waiver of statutes of limitations clauses should also be deleted or qualified</p> <p>with "to the extent permitted by the Constitution and laws of State of Texas."</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree</p> <p>to these terms?</p>	Yes

67	Remedies	<p>The parties shall be entitled to exercise any right or remedy available to it either at law or in equity, subject to the choice of law, venue and service of process clauses limitations agreed herein. Nothing in this agreement shall commit the TIPS to an arbitration resolution of any disagreement under any circumstances. Any Claim arising out of or related to the Contract, except for those specifically waived under the terms of the Contract, may, after denial of the Board of Directors, be subject to mediation at the request of either party. Any issues not resolved hereunder must be referred to non-binding mediation to be conducted by a mutually agreed upon mediator as a prerequisite to the filing of any lawsuit over such issue(s). The parties shall share the mediator's fee and any associated filing fee equally. Mediation shall be held in Camp or Titus County, Texas. Agreements reached in mediation shall be reduced to writing, and will be subject to the approval by the District's Board of Directors, signed by the Parties if approved by the Board of Directors, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Texas.</p> <p>Do you agree to these terms?</p>	Yes, I Agree
68	Remedies Explanation of No Answer		
69	Choice of Law	<p>This agreement and any addenda or other additions and all contracts or awards resulting from this procurement process, however described, shall be governed by, construed and enforced in accordance with the laws of the State of Texas, regardless of any conflict of laws principles.</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?</p>	Yes
70	Jurisdiction and Service of Process	<p>Any Proceeding arising out of or relating to this procurement process or any contract issued by TIPS resulting from or any contemplated transaction shall be brought in a court of competent jurisdiction in Camp County, Texas and each of the parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the Proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction in any other court. The parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the parties irrevocably to waive any objections to venue or to convenience of forum. Process in any Proceeding referred to in the first sentence of this Section may be served on any party anywhere in the world. Venue clauses in contracts with TIPS members may be determined by the parties.</p>	Yes

Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?

71	Alternative Dispute Resolution	Prior to filing of litigation, the parties may select non-binding mediation as a method of conflict resolution for issues arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction. The parties agree that if nonbinding mediation is chosen as a resolution process, the parties must agree to the chosen mediator(s) and that all mediation venue shall be at a location in Camp or Titus, County, Texas agreed by the parties. The parties agree to share equally the cost of the mediation process and venue cost. Do you agree to these terms?	Yes, I Agree
72	Alternative Dispute Resolution Explanation of No Answer		
73	Infringement(s)	The successful vendor will be expected to indemnify and hold harmless the TIPS and its employees, officers, agents, representatives, contractors, assignees and designees from any and all third party claims and judgments involving infringement of patent, copyright, trade secrets, trade or service marks, and any other intellectual or intangible property rights attributed to or claims based on the Vendor's proposal or Vendor's performance of contracts awarded and approved. Do you agree to these terms?	Yes, I Agree
74	Infringement(s) Explanation of No Answer		
75	Acts or Omissions	The successful vendor will be expected to indemnify and hold harmless the TIPS, its officers, employees, agents, representatives, contractors, assignees and designees from and against any and all liability, actions, claims, demands or suits, and all related costs, attorney's fees and expenses arising out of, or resulting from any acts or omissions of the vendor or its agents, employees, subcontractors, or suppliers in the execution or performance of any agreements ultimately made by TIPS and the vendor. Do you agree to these terms?	No
76	Acts or Omissions Explanation of No Answer		JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.
77	Contract Governance	Any contract made or entered into by the TIPS is subject to and is to be governed by Section 271.151 et seq, Tex Loc Gov't Code. Otherwise, TIPS does not waive its governmental immunities from suit or liability except to the extent expressly waived by other applicable laws in clear and unambiguous language.	Yes

78 Payment Terms and Funding Out Clause

Payment Terms:
TIPS or TIPS members shall not be liable for interest or late payment fees on past due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Yes

Funding Out Clause:
Vendor agrees to abide by the laws and regulations, including Texas Local Government Code § 271.903, or any statutory or regulatory limitations of the jurisdiction of any TIPS Member which governs contracts entered into by the Vendor and TIPS or a TIPS Member that requires all contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.
See statute(s) for specifics or consult your legal counsel. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.
Do you agree to these terms?

79 Insurance and Fingerprint Requirements Information

Insurance
If applicable and your staff will be on TIPS member premises for delivery, training or installation etc. and/or with an automobile, you must carry automobile insurance as required by law. You may be asked to provide proof of insurance.

Fingerprint
It is possible that a vendor may be subject to Chapter 22 of the Texas Education Code. The Texas Education Code, Chapter 22, Section 22.0834. Statutory language may be found at: <http://www.statutes.legis.state.tx.us/>
If the vendor has staff that meet both of these criterion:
(1) will have continuing duties related to the contracted services; and
(2) has or will have direct contact with students
Then you have "covered" employees for purposes of completing the attached form.
TIPS recommends all vendors consult their legal counsel for guidance in compliance with this law. If you have questions on how to comply, see below. If you have questions on compliance with this code section, contact the Texas Department of Public Safety Non-Criminal Justice Unit, Access and Dissemination Bureau, FAST-FACT at NCJU@txdps.state.tx.us and you should send an email identifying you as a contractor to a Texas Independent School District or ESC Region 8 and TIPS. Texas DPS phone number is (512) 424-2474.
See form in the next attribute to complete entitled: Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

(No Response Required)

80 Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

Introduction: Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district.

Definitions: Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students. Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school:

(a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

I certify that:

NONE (Section A) of the employees of Contractor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

OR

SOME (Section B) or all of the employees of Contractor and any subcontractor are covered employees. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.

(3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees.

(4) If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

81 Solicitation Deviation/Compliance

Does the vendor agree with the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation? Yes

82 Solicitation Exceptions/Deviations Explanation

If the bidder intends to deviate from the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation, all such deviations must be listed on this attribute, with complete and detailed conditions and information included or attached.

TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any bid based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Standard Terms and Conditions, Item Specifications, and all other information contained in this Solicitation.

83 Agreement Deviation/Compliance

Does the vendor agree with the language in the Vendor Agreement? No

If the proposing Vendor desires to deviate from the Vendor Agreement language, all such deviations must be listed on this attribute, with complete and detailed conditions and information included. TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any proposal based upon any deviations indicated below. In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Vendor Agreement.

In the PRICING section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls HVAC domain only.

In the INDEMNITY section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

85 Texas Business and Commerce Code § 272
Requirements as of 9-1-2017

SB 807 prohibits construction contracts to have provisions requiring the contract to be subject to the laws of another state, to be required to litigate the contract in another state, or to require arbitration in another state. A contract with such provisions is voidable. Under this new statute, a "construction contract" includes contracts, subcontracts, or agreements with (among others) architects, engineers, contractors, construction managers, equipment lessors, or materials suppliers. "Construction contracts" are for the design, construction, alteration, renovation, remodeling, or repair of any building or improvement to real property, or for furnishing materials or equipment for the project. The term also includes moving, demolition, or excavation. BY RESPONDING TO THIS SOLICITATION, AND WHEN APPLICABLE, THE PROPOSER AGREES TO COMPLY WITH THE TEXAS BUSINESS AND COMMERCE CODE § 272 WHEN EXECUTING CONTRACTS WITH TIPS MEMBERS THAT ARE TEXAS GOVERNMENT ENTITIES. (No Response Required)

Line Items

Response Total: \$0.00

REFERENCES

Please provide three (3) references, preferably from school districts or other governmental entities who have used your services within the last three years. Additional references may be required. DO NOT INCLUDE TIPS EMPLOYEES AS A REFERENCE.

You may provide more than three (3) references.

Entity Name	Contact Person	Email	Phone
San Joaquin County Office of Education	Mr. Ronald Estes, Division Director, Operations and Support Services	restes@sjcoe.net	209-468-9061
Mount Wachusett Community College	Bill Swift, Director of Maintenance and Mechanical Systems	W_Swift@mwcc.mass.edu	978-630-9267
Case Western Reserve University	Chris Wilson, Director of Facilities	ckw39@case.edu	216-368-5093

Certification Regarding Lobbying

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds.

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Johnson Controls, Inc.

5757 North Green Bay Ave., P.O. Box 591, Milwaukee, WI 53201

Name/Address of Organization

Brandon Jackson, Vice President of Branch Sales

Name/Title of Submitting Official

Signature

3/9/2018

Date

FELONY CONVICTION NOTICE

FOR RESPONSE TO TIPS SOLICITATION

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice:

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

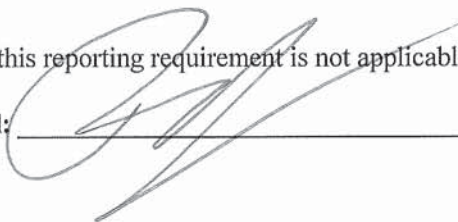
THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION

Complete only one of the three below: A or B or C.

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Official: Brandon Jackson
_____ **Print Authorized Company Official's Name**

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

Signature of Authorized Company Official: _____


OR

B. My firm is not owned nor operated by anyone who has been convicted of a felony:

Signature of Authorized Company Official: _____

OR

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): _____

Details of Conviction(s): _____

You may attach another sheet

Signature of Authorized Company Official: _____

CERTIFICATION BY CORPORATE OFFERER

IF OFFERER IS A CORPORATION,
THE FOLLOWING CERTIFICATE SHOULD BE EXECUTED AND INCLUDED AS PART OF
PROPOSAL FORM/PROPOSAL FORM.

OFFERER: Johnson Controls, Inc.
(Name of Corporation)

I, Michael R. Peterson certify that I am the ^{Assistant} Secretary of the Corporation
(Name of Corporate Secretary)


named as OFFERER herein above; that

Brandon Jackson
(Name of person who completed proposal document)

who signed the foregoing proposal on behalf of the corporation offerer is the authorized person that is acting as

Vice President of Branch Sales
(Title/Position of person signing proposal/offer document within the corporation)

of the said Corporation; that said proposal/offer was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.



CORPORATE SEAL if available



SIGNATURE

March 13, 2018
DATE

Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

The Education Service Center Region 8 and TIPS Members anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

1. Will you be subcontracting any of your work under this award if you are successful? (Circle one)

YES or NO

2. If yes, do you agree to comply with the following federal requirements? (Circle one)

YES or NO

2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

Texas Government Code 2270 Verification Form

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq.

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I, Brandon Jackson as an authorized representative of

Johnson Controls, Inc., a contractor/vendor

Insert Name of Company

engaged by

ESC Region 8/The Interlocal Purchasing System (TIPS)
4845 Highway 271 North
Pittsburg, TX, 75686

verify by this writing that the above-named company affirms that it (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that the above-named Texas governmental entity will be notified in writing within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall be grounds for immediate contract termination without penalty to the above-named Texas governmental entity.

AND

our company is not listed on and we do not do business with companies that are on the the Texas Comptroller of Public Accounts list of Designated Foreign Terrorists Organizations per Texas Gov't Code 2270.0153 found at <https://comptroller.texas.gov/purchasing/docs/foreign-terrorist.pdf>

I swear and affirm that the above is true and correct.


Signature of Named Authorized Company Representative

3/9/2018

Date

**Required Federal contract provisions of Federal Regulations for Construction Contracts
for contracts with TIPS OR TIPS MEMBERS**

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The TIPS OR TIPS MEMBERS is the subgrantee or Subrecipient by definition. The Rules are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (D) above, when federal funds are expended by TIPS OR TIPS MEMBERS, during the term of an award for all contracts and subgrants for construction or repair, when Federal Funds are expended, by the TIPS OR TIPS MEMBERS resulting for this procurement process the vendor will be in compliance with all provisions listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be

required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule above, when federal funds are expended by TIPS or TIPS Members, the proposer certifies that during the term of an award by the TIPS OR TIPS MEMBERS resulting from this procurement process for construction contracts awarded by grantees and subgrantees the proposer agrees to be in compliance with all requirements listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

FAILURE TO PROPERLY COMPLETE THIS FORM AND SUBMIT WITH YOUR RESPONSE MAY RESULT IN A WAIVER OF YOUR RIGHTS UNDER THE LAW TO MAINTAIN CONFIDENTIALITY TREATMENT OF SUBMITTED MATERIALS.

CONFIDENTIAL INFORMATION SUBMITTED IN RESPONSE TO COMPETITIVE PROCUREMENT REQUESTS OF EDUCATION SERVICE CENTER REGION 8 AND TIPS IS GOVERNED BY TEXAS GOVERNMENT CODE, CHAPTER 552

If you consider any portion of your proposal to be confidential information and not subject to public disclosure pursuant to Chapter 552 Tex Gov't Code or other law(s), you **must** make a **copy** of all claimed confidential materials within your proposal and put this **COMPLETED** form as a cover sheet to said materials then scan, name "CONFIDENTIAL" and upload with your proposal submission. (You must include the confidential information in the submitted proposal as well, the copy uploaded is to indicate which material in your proposal, if any, you deem confidential in the event the District receives a Public Information Request.) Education Service Center Region 8 and TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law. Pricing of solicited product or service may be deemed as public information under Chapter 552 Tex Gov't Code. The Office of Texas Attorney General shall make the final determination whether the information held by Education Service Center Region 8 and TIPS is confidential and exempt from public disclosure.

If you claim that parts of your proposal are confidential, complete the top section below.

I DO NOT desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS. The attached contains material from our proposal that I classify and deem confidential under Texas Gov't Code Sec. 552 or other law(s) and I invoke my statutory rights to confidential treatment of the enclosed materials.

Name of company claiming confidential status of material

Printed Name and Title of authorized company officer claiming confidential status of material

City State ZIP Phone Address

ATTACHED ARE COPIES OF _____ PAGES OF CONFIDENTIAL MATERIAL FROM OUR PROPOSAL

Signature _____ Date _____

If you do not claim any of your proposal to be confidential, complete the section below only.

Express Waiver: I desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS.
Johnson Controls, Inc.

Name of company expressly waiving confidential status of material

Brandon Jackson, Vice President of Branch Sales

Printed Name and Title of authorized company officer expressly waiving confidential status of material

5757 North Green Bay Ave., PO Box 591, Milwaukee, WI 53201 1-414-524-1200

City State ZIP Phone Address

Signature _____ Date 3/9/2018

Typical Warranty Terms

Warranty terms vary. The following sample text shows our standard warranty terms. Extended or customized warranty terms are negotiable.

Parts Warranty: JCI warrants that original equipment, parts or components manufactured or labeled by JCI shall be free from defects in material and workmanship under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment. Equipment, parts or components not manufactured or labeled by JCI shall carry a warranty from defects in material and workmanship under normal usage and proper installation and maintenance for a period of ninety (90) days from the date of shipment. Notwithstanding the foregoing, in the event JCI is reasonably able to identify a warranty for a period longer than the ninety (90) days applicable to equipment, parts or components not manufactured or labeled by JCI, it will assign all assignable rights under such warranty to Customer and reasonably cooperate in the enforcement of any warranty claim. Recertified or replacement parts installed on equipment and still under the original equipment manufacturer's warranty are covered for ninety (90) days or the remainder of the original equipment manufacturer warranty period, whichever is longer. For large tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: screw compressors, motors, control panels and components, VFD's and components and Liquid Cooled Solid State Starters and components. For small tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: scroll compressors, condenser coils, control panels and components, screw compressors (DXS and Mustang), and fan motors. In the event of a valid warranty claim, the Customer's remedy shall, at JCI's sole discretion and subject to the exclusions herein, be limited to repair or replacement of the subject equipment, part or component conditioned upon the return to JCI of any defective equipment, part or component. This Parts Warranty does not cover any shipping, handling or transportation charges or any associated labor costs.

Labor Warranty: JCI warrants its workmanship or that of its agents in relation to installation of materials for a period of ninety (90) days from date of installation or with respect to service work for a period of ninety (90) days from the date of service. Customer acknowledges that re-performance shall be its exclusive and only remedy with regards to any services provided by JCI. Customer shall bear all labor costs associated with the repair or replacement of failed material that is outside the scope of this express labor warranty. All warranty labor shall be executed during JCI normal business hours.

These warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.

THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. UNDER NO CIRCUMSTANCES SHALL JCI BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO ANY DEFECT IN MATERIAL OR WORKMANSHIP OF EQUIPMENT OR THE PERFORMANCE OF SERVICES.

The following table provides an FAQ to our warranty terms.

Question	Information
Do your warranties cover all products, parts, and labor?	There is a parts warranty and a typically a manufacturer warranty that is passed on to the customer. Additionally there is a labor warranty provided by Johnson Controls
Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	The warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.
Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	Yes.
Are there any geographic regions of the United States for which you cannot provide a certified technician to perform warranty repairs?	We can provide warranty repairs in all geographic regions.
Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	We pass all manufacturer warranties on to the customer. If requested and negotiated into the contract, we can cover a manufacturer warranty or enable the customer to buy an extended warranty.
What are your proposed exchange and return programs and policies?	<p>If we are in the installation phase and the requested change is similar in price and operation to the planned equipment, we will make the change as requested.</p> <p>If the change is less expensive, we will refund the difference to the customer.</p> <p>If the change is more expensive, we implement the change with a formal Change Order.</p>



HUB Subcontracting Plan (HSP)

QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

- If you will be awarding all of the subcontracting work you have to offer under the contract to only Texas certified HUB vendors, complete:
 - Section 1 - Respondent and Requisition Information
 - Section 2 a. - Yes, I will be subcontracting portions of the contract
 - Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors
 - Section 2 c. - Yes
 - Section 4 - Affirmation
 - GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.
- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less meets or exceeds the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:
 - Section 1 - Respondent and Requisition Information
 - Section 2 a. - Yes, I will be subcontracting portions of the contract
 - Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors
 - Section 2 c. - No
 - Section 2 d. - Yes
 - Section 4 - Affirmation
 - GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.
- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less does not meet or exceed the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:
 - Section 1 - Respondent and Requisition Information
 - Section 2 a. - Yes, I will be subcontracting portions of the contract
 - Section 2 b. - List all the portions of work you will subcontract, and indicated the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors
 - Section 2 c. - No
 - Section 2 d. - No
 - Section 4 - Affirmation
 - GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.
- If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources, complete:
 - Section 1 - Respondent and Requisition Information
 - Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources
 - Section 3 - Self Performing Justification
 - Section 4 - Affirmation

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.



HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.13 are:

- **11.2 percent for heavy construction other than building contracts,**
- **21.1 percent for all building construction, including general contractors and operative builders' contracts,**
- **32.9 percent for all special trade construction contracts,**
- **23.7 percent for professional services contracts,**
- **26.0 percent for all other services contracts, and**
- **21.1 percent for commodities contracts.**

- - Agency Special Instructions/Additional Requirements - -

In accordance with 34 TAC §20.14(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only contracts that have been in place for five years or less shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.

SECTION-1: RESPONDENT AND REQUISITION INFORM

- a. Respondent (Company) Name: Johnson Controls, Inc. State of Texas VID #: 1390380010303
 Point of Contact: Andrew Pergande Phone #: 1-414-524-6937
 E-mail Address: Andrew.Pergande@jci.com Fax #: _____
- b. Is your company a State of Texas certified HUB? - Yes - No
- c. Requisition #: 180203 Bid Open Date: 3/4/2018

(mm/dd/yyyy)

Enter your company's name here: Johnson Controls, Inc Requisition #: 180203

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, including goods and services, will be subcontracted. Note: In accordance with 34 TAC §20.11., an "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:

- **Yes**, I will be subcontracting portions of the contract. (If **Yes**, complete Item b, of this SECTION and continue to Item c of this SECTION.)
- **No**, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources. (If **No**, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>five (5) years or less</u> .	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>more than five (5) years</u> .	Percentage of the contract expected to be subcontracted to non-HUBs.
1	Johnson Controls will complete this form and all	%	%	%
2	other required HUB forms when a project has been	%	%	%
3	identified. Without an identified project, we are	%	%	%
4	unable to determine which portions of the project	%	%	%
5	require subcontractors.	%	%	%
6	Johnson Controls is committed to meeting and	%	%	%
7	exceeding all targets for HUB participation and	%	%	%
8	routinely uses HUB contractors for significant	%	%	%
9	portions of our projects.	%	%	%
10	Please see the Contractor Oversight section of our	%	%	%
11	RFP response for details about our commitment to	%	%	%
12	HUB and other small and disadvantaged businesses.	%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
	Aggregate percentages of the contract expected to be subcontracted:	%	%	%

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at <http://window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/>).

c. Check the appropriate box (Yes or No) that indicates whether you will be using only Texas certified HUBs to perform all of the subcontracting opportunities you listed in SECTION 2, Item b.

- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
- **No** (If **No**, continue to Item d, of this SECTION.)

d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract with Texas certified HUBs with which you have a continuous contract* in place with for five (5) years or less meets or exceeds the HUB goal the contracting agency identified on page 1 in the "Agency Special Instructions/Additional Requirements".

- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
- **No** (If **No**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed.)

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.

Enter your company's name here: Johnson Controls

Requisition #: 180203

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT (CONTINUATION SHEET)

a. This page can be used as a continuation sheet to the HSP Form's page 2, Section 2, Item b. Continue listing the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>five (5) years or less.</u>	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>more than five (5) years.</u>	Percentage of the contract expected to be subcontracted to non-HUBs.
16		%	%	%
17		%	%	%
18		%	%	%
19		%	%	%
20		%	%	%
21		%	%	%
22		%	%	%
23		%	%	%
24		%	%	%
25		%	%	%
26		%	%	%
27		%	%	%
28		%	%	%
29		%	%	%
30		%	%	%
31		%	%	%
32		%	%	%
33		%	%	%
34		%	%	%
35		%	%	%
36		%	%	%
37		%	%	%
38		%	%	%
39		%	%	%
40		%	%	%
41		%	%	%
42		%	%	%
43		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

**Continuous Contract: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: Johnson Controls, Inc

Requisition #: 180203

SECTION 3: SELF PERFORMING JUSTIFICATION (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4)

Check the appropriate box (Yes or No) that indicates whether your response/proposal contains an explanation demonstrating how your company will fulfill the entire contract with its own resources.

- **Yes** (If **Yes**, in the space provided below **list the specific page(s)/section(s)** of your proposal which explains how your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)
- **No** (If **No**, in the space provided below **explain how** your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)

SECTION 4: AFFIRMATION

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.

	Brandon Jackson	Vice President of Branch Sales	3/4/2018
Signature	Printed Name	Title	Date <small>(mm/dd/yyyy)</small>

Reminder:

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.

HSP Good Faith Effort - Method A (Attachment A)

Enter your company's name here: <u>Johnson Controls, Inc.</u>	Requisition #: <u>180203</u>
---	------------------------------

IMPORTANT: If you responded “Yes” to SECTION 2, Items c or d of the completed HSP form, you must submit a completed “HSP Good Faith Effort - Method A (Attachment A)” for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-a.pdf>.

SECTION A-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION A-2: SUBCONTRACTOR SELECTION

List the subcontractor(s) you selected to perform the subcontracting opportunity you listed above in SECTION A-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB

Company Name	Texas certified HUB	VID Number (Required if Texas certified HUB)	Approximate Dollar Amount	Expected Percentage of Contract
As stated in section 2B, We will complete these forms	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
after a project has been identified. Johnson Controls is	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
committed to meeting and exceeding HUB participation	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
targets, and routinely uses HUB contractors in our projects.	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%

REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

HSP Good Faith Effort - Method B (Attachment B)

Enter your company's name here: _____	Requisition #: _____
---------------------------------------	----------------------

IMPORTANT: If you responded "Yes" to SECTION 2, Items c or d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION B-2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If *Yes*, to continue to SECTION B-4.)
- No / Not Applicable (If *No* or *Not Applicable*, continue to SECTION B-3 and SECTION B-4.)

SECTION B-3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you MUST comply with items a, b, c and d, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to your submitting your bid response to the contracting agency. When searching for Texas certified HUBs, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) and Historically Underutilized Business (HUB) Search directory located at <http://mycpa.state.tx.us/tpasscmblsearch/index.jsp>. HUB Status code "A" signifies that the company is a Texas certified HUB.
- b. List the three (3) Texas certified HUBs you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Vendor ID (VID) number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	VID Number	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.

- d. List two (2) trade organizations or development centers you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No

HSP Good Faith Effort - Method B (Attachment B) Cont.

Enter your company's name here: _____ Requisition #: _____

SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: _____ Description: _____

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in SECTION B-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB.

Company Name	Texas certified HUB	VID Number <small>(Required if Texas certified HUB)</small>	Approximate Dollar Amount	Expected Percentage of Contract
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in SECTION B-1 is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

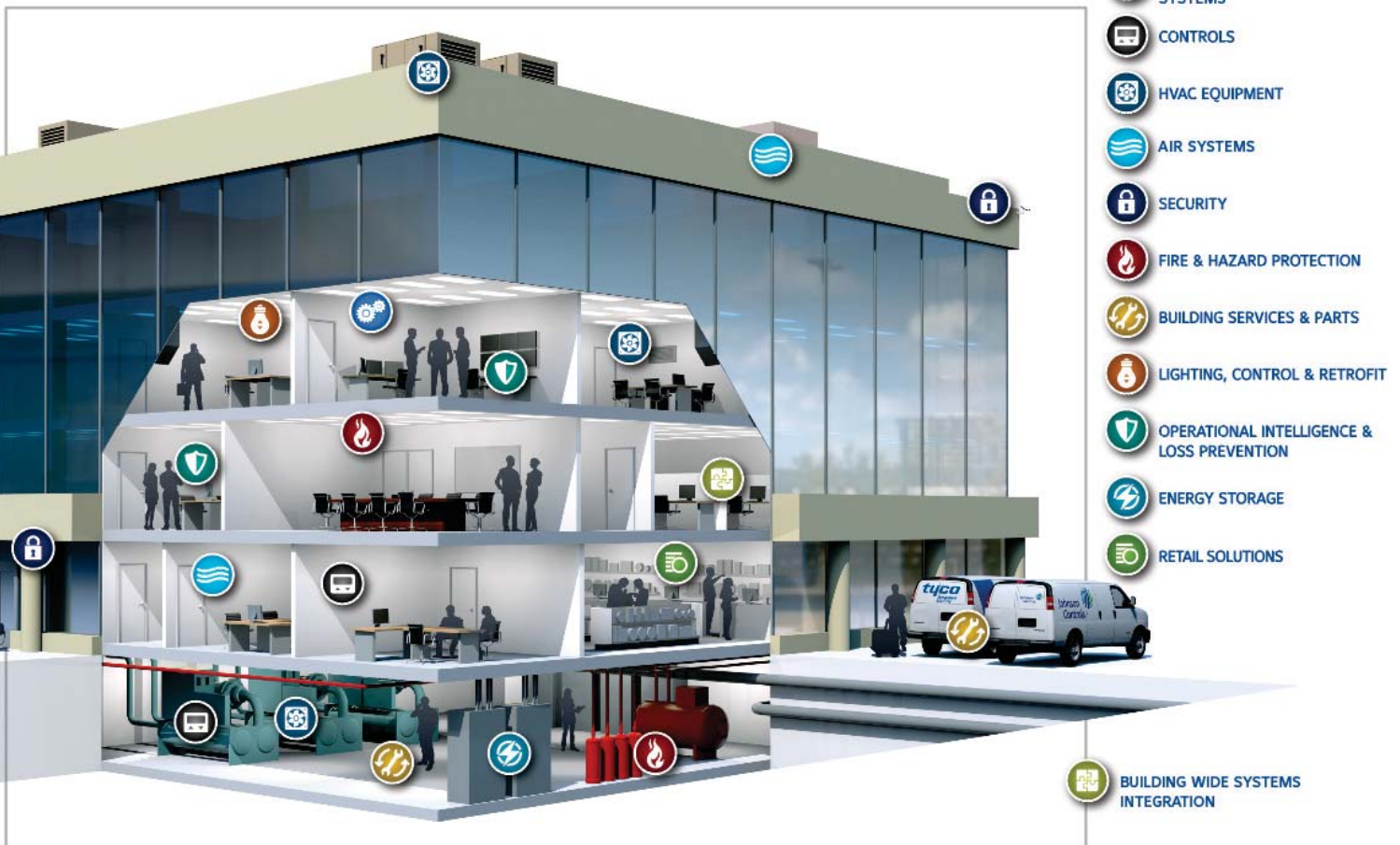
REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

SMARTER, SAFER, MORE SUSTAINABLE
BUILDINGS AND CITIES.



TAKE ADVANTAGE OF A BROADER RANGE OF CAPABILITIES.

Johnson Controls now provides a wider spectrum of innovative products, expert installation and services, and systems integration to help improve operational and energy outcomes for customers worldwide.



HVAC EQUIPMENT

Draw on the most comprehensive HVAC portfolio for commercial and residential buildings of all types, ages and sizes to enhance sustainability, energy use and the indoor environment.

- Chillers—air-cooled; water-cooled; connected
- Condensers and condensing units
- Dedicated outdoor air systems (DOAS)
- Duct-free mini-split systems
- Indoor packaged equipment
- Rooftop units
- Variable refrigerant flow (VRF) systems

SECURITY

Help protect and enhance working and living environments today and tomorrow with integrated, customer-specific solutions from the world's leading security company.

- 24/7 remote monitoring
- Access control
- Advanced video surveillance
- Intrusion detection
- Managed services

CONTROLS

Equip facilities with intelligent HVAC controls to keep occupants comfortable, run equipment efficiently and optimize operating budgets.

- Actuators
- Control panels
- Control sensors
- Current sensors and transducers
- Thermostats
- Valves
- Variable speed drives

FIRE, LIFE-SAFETY & HAZARD PROTECTION

Help keep people and assets safe with comprehensive solutions, design, installation, service and monitoring from a world leading fire and life-safety systems provider.

- Fire alarm systems
- Fire sprinkler systems
- Fire suppression systems
- Mass notification systems
- Special hazard solutions

OPTIMIZATION & RETROFIT SERVICES

Make the most of existing building and financial assets through cost-effective upgrades, central plant strategies, and financing solutions.

- Central chiller plant optimization
- Clean energy assessments
- Energy performance contracts
- Energy retrofits
- Equipment financing
- Healthcare environment optimization
- Public/private partnerships
- Technology refresh services
- Turnkey upgrades and retrofits

LIGHTING CONTROLS & RETROFIT

Save energy, minimize costs and meet organizational goals with a range of services, from business remodels, to new construction lighting design, to municipal street lights.

- Lighting retrofits
- Street and roadway lighting
- Turn-key lighting upgrades

ENERGY STORAGE

Rely on our innovative distributed energy storage products to better manage energy use, cut costs and ensure electrical back-up for a building, campus or enterprise.

- In-building distributed energy storage system
- Modular distributed energy storage system

RETAIL SOLUTIONS

Gain real-time insights into retail facilities, inventories, employees & customers to achieve maximum business performance in a digitally driven shopping world.

- Loss Prevention
- Inventory Intelligence
- Traffic Insights

OPERATIONAL INTELLIGENCE & LOSS PREVENTION

Helps minimize costs, maximize operational performance and enhance return on investment in security programs with business intelligence solutions.

- Information management solutions
- Real-time location systems (RTLS) for asset management
- Video and traffic analytics

BUILDING SERVICES & PARTS

Tap into resources of the industry's largest service network for HVAC, security and life-safety system installation and product support. More than 12,000 technicians working out of nearly 500 local offices can provide 24x7x365 proactive monitoring, remote and on-site service and repair, and replacement parts.

- Aftermarket parts
- Building remote monitoring
- Building system and HVAC repair
- Planned and preventive maintenance
- Predictive and diagnostic services
- Security and life-safety system repair

BUILDING AUTOMATION SYSTEMS

Connect commercial HVAC, lighting, security and protection systems on one platform. Vital data and insights improve efficiency, productivity, and occupants' comfort and safety.

- Metasys® building automation system
- Metasys Enterprise Optimization applications

AIR SYSTEMS

Use efficient air flow building-wide to create healthy, comfortable and visually appealing environments that increase work productivity and occupant satisfaction.

- Air handling units
- Air measuring
- Chilled beams
- Dampers
- EcoAdvance™ HVAC load reduction (HLR) module
- Energy recovery ventilators
- Fan and blower
- Fans
- Filtration
- Grilles and diffusers
- Heating coils and cooling coils
- Louvers
- Under floor air distribution
- Unit ventilators
- Variable air volume (VAV) terminals
- Variable speed drives

BUILDING WIDE SYSTEMS INTEGRATION

Construct a smarter building by converging building, business/IT and specialty systems on an intelligent infrastructure. Let us streamline the process to measurably improve initial and lifecycle costs, enhance function, ensure connectivity and create an innovative, optimized, sustainable environment.



MEET THE WORLD LEADER IN
**INTEGRATED BUILDING TECHNOLOGY
AND ENERGY STORAGE.**

Bringing you the best of Johnson Controls.

More comprehensive products, technologies and services.

More innovation and efficiency over the life of a facility.

More holistic, integrated solutions to help make buildings, campuses and cities increasingly safe, smart and sustainable.

DISCOVER COMPLETE, CONNECTED SOLUTIONS TO HELP

BUILDING SYSTEMS, SERVICES & SOLUTIONS

SERVICES & SOLUTIONS



MAINTENANCE & REPAIR SERVICES

With 418 locations and more than 12,000 highly skilled technicians across North America, we help facilities perform at optimum levels, extend asset life, reduce repair costs, and realize energy savings.



BUILDING WIDE SYSTEMS INTEGRATION (BWSI)

We integrate building systems (HVAC, BAS, security), business systems (finance, IT, communications) and specialty systems (nurse call, distance learning, scheduling) onto a unified, intelligent infrastructure.



TECHNOLOGY CONTRACTING™

We are responsible for managing design, integration, installation and service of all technology. Along with innovative partners, we reduce risk, minimize change orders and meet budgets and deadlines.



ENERGY SOLUTIONS

We assess facilities and design a plan to prioritize repairs, upgrade equipment, reduce energy use and improve overall efficiency. Use tomorrow's energy savings to pay for today's upgrades.

OPTIMIZATION



CENTRAL PLANT OPTIMIZATION (CPO 10 / CPO 30)

CPO 10 uses standardized software in *Metasys* to leverage ASHRAE standards, best practices & equipment data to save 5-15% in energy.

CPO 30 uses engineered software to save 15-20% in energy (up to 60% when retrofitting), with real-time analytics to assure performance.



DEMAND RESPONSE

Optimize building energy usage to reduce load during key periods of high prices, high demand charges and electric grid events to maximize electric bill savings and incentive payments from grid and utility based programs.



HEALTHCARE ENVIRONMENT OPTIMIZATION

Optimize the operating room and improve the patient care environment by linking building automation with surgical scheduling.



METASYS ENTERPRISE OPTIMIZATION

Simplify data collection from a variety of building systems to provide a single, integrated view of building and system performance.

CHILLED WATER SYSTEMS

YORK® WATER-COOLED CHILLERS



ELECTRIC

SCROLL (YCWL) • 50–200 tons
HFC-410A refrigerant



VARIABLE-SPEED SCREW (YVWA) • 125–300 tons
HFC-134a refrigerant



MAGNETIC BEARING VARIABLE SPEED CENTRIFUGAL (YMC²) • 165–1,000 tons
Permanent magnet motor, HFC-134a refrigerant



VARIABLE SPEED CENTRIFUGAL (YK) • 250–3,000 tons
HFC-134a refrigerant



CENTRIFUGAL WITH ECONOMIZER (YK-EP) • 2,500–3,500 tons
Variable-speed drive, HFC-134a refrigerant



CENTRIFUGAL (YD) • 1,500–6,000 tons
Smallest footprint per cooling ton, HFC-134a refrigerant, VSD



COMPOUND CENTRIFUGAL (CYK) • 300–2,500 tons
High-head, HFC-134a refrigerant



CUSTOM-DESIGNED CENTRIFUGAL (OM) • 3,000–5,500 tons

Electric-motor, steam-turbine or gas-engine drive, HFC-134a refrigerant



THERMALLY DRIVEN

STEAM-TURBINE DRIVEN CENTRIFUGAL (YST) • 700–2,800 tons
HFC-134a refrigerant



SINGLE-STAGE ABSORPTION (YIA) • 120–1,380 tons
Low-pressure-steam or hot-water driven, water refrigerant



TWO-STAGE ABSORPTION (YPC) • 200–700 tons
Gas, oil, or high-pressure-steam driven, water refrigerant

YORK AIR-COOLED CHILLERS



SCROLL (YCAL & YLAA) • 15–175 tons
HFC-410A refrigerant



HEAT PUMP SCROLL (YLPA) • 1,390–2,040 MBH
HFC-410A refrigerant, chiller duty also available (115–170 tons)



VARIABLE-SPEED SCREW (YVAA/YCIV/YCAV) • 150–500 tons
HFC-134a refrigerant, free cooling options available

DUCTLESS & VRF SYSTEMS

YORK VARIABLE REFRIGERANT FLOW (VRF) SYSTEMS



OUTDOOR UNITS • 6–30 tons

Both heat recovery and heat pump types, air cooled condensing units with inverter scroll compressors; up to 29.5 SCHE and 25.2 IEER



INDOOR UNITS • 0.5–4 tons

Fan coil units in multiple styles (concealed, wall mount, ceiling cassette); ducted and non-ducted; sensor options

YORK MINI-SPLIT SYSTEMS



SINGLE ZONE • 0.75–4 tons

A single condensing unit paired with a single wall mount indoor unit. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star® rated.



MULTI ZONE • 1.5–3.5 tons

Single condensing unit with 2–5 indoor units per system. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star rated.

HOW YOU INCREASE COMFORT, SECURITY AND EFFICIENCY

SOLUTIONS

METASYS® BUILDING AUTOMATION SYSTEMS



NETWORK SERVERS, ENGINES & CONTROLLERS

Intuitive, mobile-optimized user interface. Adapts legacy and proprietary systems to current open system architecture. Support of IT standards and technologies.



WIRELESS COMPONENTS

Field buses and room environment sensing systems designed with the latest wireless technologies.



VALVES, ACTUATORS & DAMPERS

Global product family, broad selection, easy installation.



SENSORS, THERMOSTATS & AIRFLOW MEASURING SYSTEM

Temperature, humidity and CO₂ sensors including analog, network, wireless and pneumatic-to-digital.



VARIABLE-SPEED DRIVES • 1-250 HP

Open, enclosed and bypass drives, optional factory mounting.

ENERGY STORAGE



L1000 IN-BUILDING DISTRIBUTED ENERGY STORAGE SYSTEM

The benefits of advanced battery technology and in-depth building expertise in a small, flexible footprint. Configurable storage capacity in increments of 43 and 65 kWh.



L2000 MODULAR DISTRIBUTED ENERGY STORAGE SYSTEM

Scalable system builds on proven design and environmental controls to ensure economical, reliable performance. Storage capacity configured in 500kWh increments.

LIGHTING



LED RETROFIT KITS

- Utilize existing housing and lens
- Utilize existing housing with updated lens/look



AREA AND STREET LIGHTS

- New fixtures to replace existing HID fixtures

AIR SYSTEMS

YORK AIR HANDLING UNITS, COILS & FANS



AIR HANDLING UNITS (SOLUTION™) • 2,000-120,000 CFM

Indoor and outdoor, 2" foam double-wall panels with external frame, variable aspect, flexible factory-packaged controls



CUSTOM AIR HANDLING UNITS • 2,000-200,000 CFM

Indoor and outdoor, 2", 3" or 4" foam double-wall panels with integral frame, full thermal break options, fully customizable



COILS • Maximum 96" Finned Height and 168" Finned Length
Hot water, chilled water, glycol, steam, refrigerant, aluminum or copper fins, special coatings available



BLOWER COILS • 800-4,000 CFM

Small air handling and large fan coil applications; various configurations



FANS • 75-100,000+ CFM

Commercial and industrial supply and exhaust fans

UNDERFLOOR AIR DISTRIBUTION (UFAD) SYSTEMS



UNDERFLOOR TERMINAL UNITS • 15-1,500 CFM

VAV or manual diffusers, linear trough, UFAD fan powered terminal units, underfloor chilled beams

CHILLED BEAMS



OVERHEAD CHILLED BEAMS • Up to 1,700 BTU/h and 40 CFM

per LF • Active and passive chilled beam products available in 2 - 10 foot lengths

TERMINAL UNITS



FAN-COIL UNITS • 250-2,000 CFM

Exposed and concealed, horizontal and vertical, vertical stack, variable cabinet sizing, direct-drive, flexible factory-packaged controls



UNIT VENTILATORS • 500-2,000 CFM

Horizontal and vertical units, flexible factory-packaged controls



VAV TERMINAL BOXES • 75-8,000 CFM

Single or dual-duct, series or parallel fan-powered, flexible factory-packaged controls, water and electric heat options

PACKAGED & SPLIT DX SYSTEMS



PACKAGED ROOFTOP UNITS • 2-150 tons

VAV and single-zone VAV applications, direct replacement options



DEDICATED OUTSIDE AIR SYSTEMS (DOAS) • 50-100%

outside air • High efficiency DX, energy recovery wheel and hot gas reheat options



COMMERCIAL SPLIT SYSTEMS • 1.5-50 tons

Cooling only or heat pump outdoor units with matching cooling only, heat pump or electric heat indoor air handling units



WATER SOURCE HEAT PUMPS • 0.5-30 tons

Vertical and horizontal (standard, high and premium efficiency), console, vertical stacked (high and premium efficiency), geothermal capable



REVERSIBLE CHILLERS • 2-50 tons

Water-to-water heat pumps, (2-5 tons & 10-50 tons), modular application, geothermal capable



WATER-COOLED SELF-CONTAINED UNITS • 5-105 tons

Indoor, VAV application (> 8 tons), various heating options



AIR-COOLED SELF-CONTAINED UNITS • 2-25 tons

Indoor, VAV application (> 8 tons), rooftop alternative for dense building landscapes



AIR-COOLED CONDENSERS & FLUID COOLERS • 65-2,890

MBH Water or glycol, multiple refrigerant options

ENERGY RECOVERY SYSTEMS



ENERGY RECOVERY VENTILATORS (ERV) • 200-12,000 CFM

Energy efficient ventilation including many heating and cooling options



HVAC LOAD REDUCTION UNITS (HLR) • Replaces up to 4,000

CFM of OA • ASHRAE 62.1 compliant product, up to 80% reduction in outside air replacement

INTEGRATED SECURITY & FIRE, LIFE-SAFETY PROTECTION

FIRE HAZARD PROTECTION



FIRE DETECTION AND ALARM

Flexible, reliable, cost-effective and highly scalable systems that can grow and expand as buildings change.



WATER FIRE SUPPRESSION

High-performance sprinkler, deluge & water mist systems.



SPECIAL HAZARD FIRE SUPPRESSION

Foam, clean agent and inert gas systems provide unique answers to unique challenges.



MASS NOTIFICATION SYSTEMS

Customizable, multi-tiered technology helps improve situational awareness and response time.



MECHANICAL PRODUCTS

Cost-effective grooved piping solutions for a full range of fire, mechanical, HVAC and industrial applications.



GAS AND FLAME DETECTION

Advanced sensor technology for multiple flame and toxic gas detection.

LIFE-SAFETY AND PERSONAL PROTECTION



RESPIRATORY PROTECTION SYSTEMS

Supplied air respirators, cylinders, air purifying respirators (APR), and many more solutions that address broad hazardous and industrial applications.



THERMAL IMAGING PRODUCTS

NFPA compliant technology offers comprehensive capabilities to maximize situational awareness.



PERSONAL PROTECTIVE EQUIPMENT

Innovative, industry specific equipment for first responders, firefighters, law enforcement, military and industrial personnel.



COMPRESSORS

Vertical and horizontal units are designed as free standing modules.



COMMUNICATION SYSTEMS

Robust person-to-person communications, advanced audio and wireless technologies, and two-way radio interoperability.

INTEGRATED SECURITY



SECURITY, FIRE & LIFE-SAFETY INTEGRATION

We are a security integrator with a vast product ecosystem specializing in the design, installation and service of security and life-safety solutions for the most complex, mission critical environments.



SECURITY MANAGEMENT SYSTEM (P2000)

Open security management platform with integrated access control, embedded video management and industry-wide third-party integrations.



ACCESS CONTROL / BIOMETRICS

Access control readers, doors, gates and devices help control, track and manage access to any facility.



INTRUSION DETECTION

Solutions customized for each customer leveraging contact devices, motion and glass break detection, panic buttons, photo beam and much more.



PERIMETER PROTECTION

Help achieve a more secure perimeter with ground based radar systems, video surveillance and monitored alarm systems.



VIDEO SURVEILLANCE, VIDEO MANAGEMENT & STORAGE

Robust surveillance systems with video cameras, monitors, CCTV and remote management tools. Scalable, integrated solutions and advanced video analytics.



SECURITY MONITORING

Fully redundant, UL®-listed Customer Care Centers provide 24/7/365 security monitoring.



COMMAND & CONTROL

Physical security information management (PSIM) helps manage all integrated physical security from one streamlined interface.



VEHICLE & GATE MANAGEMENT

K-rated fences and gates, pop-up vehicle barriers, traffic barricades and more to help protect against unauthorized people, vehicles, explosives and other threats.



DURESS & NOTIFICATION SYSTEMS

Broadcast critical messages quickly, all from a simplified web-based interface.



MANAGED SERVICES

Managed video, access control, mobile management, video guard and cloud-based video connected across a variety of platforms to help maintain secured environments in real-time.

RETAIL SOLUTIONS



LOSS PREVENTION

Integrated solutions to help reduce theft and fraud. Key components include store front detection systems (EAS, RFID), tags and labels for products, and camera systems. Software and analytic solutions help efficiency and provide insight.



INVENTORY INTELLIGENCE

TrueVue leverages item-level RFID-enabled technology enabling real-time item-level inventory visibility through the supply chain and into stores.



TRAFFIC INSIGHTS

ShopperTrak provides insights into more than 40B shopper visits per year, including store perimeter traffic counts, interior shopper analytics, labor analytics and market intelligence dashboards to help retailers increase traffic, conversion rates and transaction size.

OPERATIONAL INTELLIGENCE & ASSET PROTECTION



VIDEO BASED ANALYTICS

Video analytics software, web-based video analytics, servers, video audits and more help to analyze the data that matters across many industries.



REAL-TIME LOCATION SYSTEMS (RTLS)

Help keep staff and equipment safe with an RTLS that monitors equipment, medications, temperature sensitive products and staff



INFORMATION MANAGEMENT SOLUTIONS

Integrate multiple systems from multiple vendors, across multiple locations to more effectively manage overall security.

MAKING PROGRESS TOGETHER

Johnson Controls Building Technologies & Solutions partners with customers all over the world, in all market segments: education, healthcare, retail and commercial buildings, institutional and government facilities. We're thinking about your future, and the world's future, to create smarter, safer, more sustainable buildings for today and tomorrow. Our team delivers the technology and expertise that helps the world progress.

Let's talk about the connected building systems, services and solutions we offer to help you achieve your goals.

Call today or learn more at: 844.722.1269

Some of the renowned brands from Johnson Controls include:

tyco

 **YORK**®  **METASYS**®

 **Simplex**  **Grinnell**

Sensormatic®  **ShopperTrak** **TrueVUE**®

exacq  **ANSUL**® **DSC**®  **Visonic**

 **American Dynamics** **KANTECH** **SOFTWARE HOUSE**

JOHNSON CONTROLS AND THE JOHNSON CONTROLS LOGO, METASYS, YORK, TYCO, SIMPLEX AND GRINNELL are marks and/or registered marks. Unauthorized use is strictly prohibited.

Technology Contracting™, Solution™, and EcoAdvance™ are trademarks of Johnson Controls, Inc. in the United States of America and other countries. Other trademarks used herein may be trademarks or registered trademarks of other companies.

ENERGY STAR® and the ENERGY STAR® mark are registered trademarks owned by the U.S. Environmental Protection Agency.

UL™ and the UL logo are trademarks of UL LLC.

© 2016 Johnson Controls. All Rights Reserved.
P.O. Box 423, Milwaukee, WI 53201
Printed in USA
MISC-939 LT1313-00 MC100-2016-008
www.johnsoncontrols.com



Distributed Energy Storage System

L1000 In-Building

Manage energy use, cut costs and provide backup power for a building, campus or enterprise with the L1000 In-Building Distributed Energy Storage System from Johnson Controls. We combine world-class battery technology, in-depth buildings expertise and intelligent controls to deliver the solution that performs best with your specific building systems.

Controls go beyond the battery to optimize whole-building performance and simplify participation in energy markets. Adaptive algorithms and premium battery composition help you realize the lowest total lifecycle cost.

As a global multi-industrial leader emphasizing manufacturing excellence, Johnson Controls is perfectly positioned to partner with you on state-of-the-art energy storage. Learn how you can store and distribute power off the grid with the L1000 small container solution.

Economic Value

The system provides the ability to save money as well as participate in energy markets to deliver economic value to buildings.

Short-Term Energy Backup

The system can be configured to provide short-term electrical backup to the facility while a generator is ramping.

Multiple Power Options

The system output can be configured based upon customer needs from 50kW up to 250kW.

Modular Capacity Options

The system capacity can be configured in increments of 43 and 65 kWh.



Metasys® Compatible

The system integrates seamlessly into the *Metasys*® Building Automation System for local monitoring and control.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Small Footprint

The system can be installed in any electrical room connected to the facility grid.

Distributed Energy Storage System

L1000 In-Building

Product Specifications

	BU-43	BU-65
Minimum Storage Capacity	43 kWh	65 kWh
Storage Capacity Increment	43 kWh	65 kWh
Power Rating	Dependent upon PCS	
Applications	Frequency Regulation, Peak Shaving, Load Shifting, Backup, Volt/Var Support	
DC Voltage	518 VDC	778 VDC
Seismic	Zone 4 (California)	
Market Interface	Johnson Controls	
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet	
Monitoring	Local and Remote	
Battery Cells	VL41M 41Ah Li-Ion Cylindrical Battery	
Certification	Pending	Pending
Expected Life	Up to 20 years*	
Dimensions (W x D x H)	37 x 23 x 74 in.	37 x 23 x 74 in.
Weight (lbs)	1950 lbs.	2600 lbs.

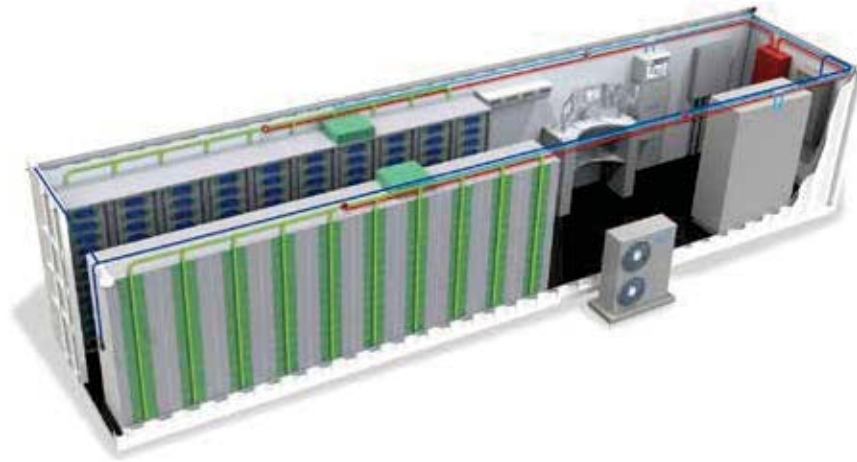
*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Battery Units	
BU-43	43 kWh Li-ion battery storage
BU-65	65 kWh Li-ion battery storage

Distributed Energy Storage System

L2000 Modular Container



Discover state-of-the-art distributed energy storage for utilities and large commercial customers. The L2000 Modular Container Distributed Energy Storage System from Johnson Controls draws on our world-class battery technology, facilities expertise and intelligent controls to handle multiple, concurrent applications. This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants.

Multiple Application Support

The system can be programmed to perform multiple, concurrent applications including transmission and distribution deferral, capacity, voltage support, renewable integration, frequency regulation, and other ancillary services.

Multiple Power Options

The system output can be configured based upon customer needs from 500kW up to 2MW.

Modular Capacity Options

System capacity can be configured based upon customer needs in 500kWh increments.

Utility and Building Compatible

The system integrates seamlessly into the utility or building energy management system using standard protocols.

The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost. As a global multi-industrial leader, we have the manufacturing excellence, innovation focus and customer insight to deliver leading-edge distributed energy storage products. Learn how the L2000 modular system brings new opportunities to regulate, store and distribute power.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Separable Power Conversion

For customers with their own power conversion system, the battery units can be ordered separately.

Modular Footprint

Batteries are housed in custom 20ft or 40ft containers to ISO shipping container dimensions.

Distributed Energy Storage System

L2000 Modular Container

Product Specifications

Minimum Storage Capacity	500 kWh
Storage Capacity Increment	500 kWh
Power Rating	Dependent upon PCS
Applications	Transmission and Distribution Deferral, Capacity, Frequency Regulation, Voltage Support, Renewable Integration, and Other Ancillary Services
DC Voltage	778 VDC (nominal)
AC Voltage	Dependent upon PCS
Seismic	Zone 4 (California)
Market Interface	Johnson Controls
Utility Interface	DNP3
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet
Monitoring	Local and Remote
Fire Alarm Detection	Potter
Fire Suppression	Stat-X Aerosol
HVAC	18,000 BTU York
Network Security	SSL/X509
Battery Cells	VL41M, 41Ah Li-Ion Large Format Cylindrical
Expected Life	Up to 20 years*
Dimensions (W x D x H)	8 feet (2.438 m) x 20-feet (6.95 m) x 8 feet (2.438 m) 8 feet (2.438 m) x 40-feet (12.19 m) x 8 feet (2.438 m)
Weight (lbs)	PCS-500 = 3500 lbs., PCS-2000 = 7000 lbs., BU-1000 = 50,000 lbs.

*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Power Conditioning Systems	
PCS-500	500 KW Inverter
PCS-1000	1 MW Inverter
PCS-2000	2 MW Inverter
Battery Units	
BU-500	500 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1000	1000 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1500	1500 kWh Li-ion battery storage with DNP3 / BACnet interface
Remote Monitoring Units	
RMU-CELL	4G LTE remote monitoring interface
RMU-WIFI	Wireless Internet monitoring interface
RMU-ETH	1G Ethernet interface

Lighting Design Considerations for K-12

Students who are comfortable and happy in their physical environments actually have a better chance of doing well in school. In fact, reports show that **students in well-maintained facilities score up to 10 percent higher on standardized tests.**

You may know Johnson Controls for building systems and equipment, but we also provide lighting solutions and financing expertise to help you build a brighter future for your school.

Depending on the standards that apply, the following indicates the controls required in a school. The ASHRAE 90.1 2010 version expands the list of control requirements: occupancy sensors (or timer switches, per approval by the authority having jurisdiction) that turn the lights off within 30 minutes of the space becoming unoccupied are required in:

- Classrooms and lecture halls
- Conference, meeting and training rooms
- Lunch and break rooms
- Storage and supply rooms between 50 and 1,000 sq. ft. in size
- Rooms used for document copying and printing
- Office spaces up to 250 sq. ft.
- Restrooms
- Dressing and locker rooms

Exceptions include shop and laboratory classrooms, spaces with multi-scene (e.g., dimming) control systems, lighting required for 24-hour operation and spaces where automatic shut off would endanger safety or security of people or property.

Design Considerations

Determine what "standards" need to be followed for light levels, controls, lighting power density, etc.

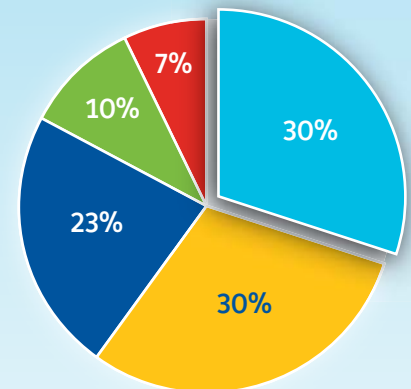
Depending on the standards that apply, the following table indicates the maximum lighting power density (watts/sq. ft.) allowed in a school.

Building Type	Maximum Lighting Power Density (W/sq. ft.) allowed per version of the ASHRAE/IES 90.1 Standard			
	1989	1999/2001	2004/2007	2010
School/University	1.29	1.5	1.2	.99



According to the U.S. Department of Energy, lighting is 30% of the total energy consumed in a typical school.

Typical School Energy Use Distribution
(varies by climate zone)



- Lighting
- Cooling
- Space heating
- Water heating
- Other



Classrooms

In order to provide the most efficient system to meet the adopted codes for classrooms, the following information should be captured:

- Typical layout of the fixture spacing in the classroom
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/outboard switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

CLASSROOM FOOT CANDLE (FC) REQUIREMENTS			
General	20 FC	Art	25 FC
Music	15 FC	Home EC	50 FC
Science Lab	50 FC	Shop	50 FC
Study Hall	15 FC	Multipurpose	25 FC

Gymnasiums

In order to provide the most efficient system to meet the adopted codes for gymnasiums, the following information should be captured:

- Typical layout of the fixture spacing in the gymnasium
 - Allows for light level verification of proposed upgrade
 - Fixture spacing patterns over the court and mounting heights
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for fixture control patterns and light level selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with new fluorescent high bay fixtures.
 - Consider dimming or stepdown options for light level options for recreation and/ or competition play. Refer to IES requirements below.
- Maximize energy savings by performing sample light level calculations using software design programs for new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the class of play and activities. See the chart below to determine the correct foot candle requirements.



GYMNASIUM FOOT CANDLE (FC) REQUIREMENTS			
Physical Education	25 FC	HS Competition	50 FC





Hallways/Stairs

In order to provide the most efficient system to meet the adopted codes for hallways and stairs, the following information should be captured:

- Typical layout of the fixture spacing in the hallways and location of fixtures in the stairs
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/out-board switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls’ manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of “scenes” required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

HALLWAYS/STAIRS FOOT CANDLE (FC) REQUIREMENTS			
Hallways	2.5 FC	Stairs	5 FC

Let us help you build a brighter school and improve student achievement. Visit www.johnsoncontrols.com/k12 to find your local expert.

REFERENCE:
Illuminating Engineering Society, *The Lighting Handbook* – Tenth Edition, Reference and Application

Johnson Controls and the Johnson Controls logo are registered trademarks of Johnson Controls, Inc., or its affiliates, in the United States of America and/or other countries.

ELEVATE PORTFOLIO PERFORMANCE WITH METASYSTM ENTERPRISE ENERGY OPTIMIZATION

A family of applications designed to help drive asset uptime, lower energy costs and increase productivity

Today's well-designed building automation systems produce a wealth of data, events and alerts that can be overwhelming. Stretched for time and short on resources, you frequently don't have the capacity to sift through volumes of data to identify critical, costly issues. Metasys Enterprise Energy Optimization helps to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise.

BRINGING IT ALL TOGETHER IN ONE COMPREHENSIVE VIEW.

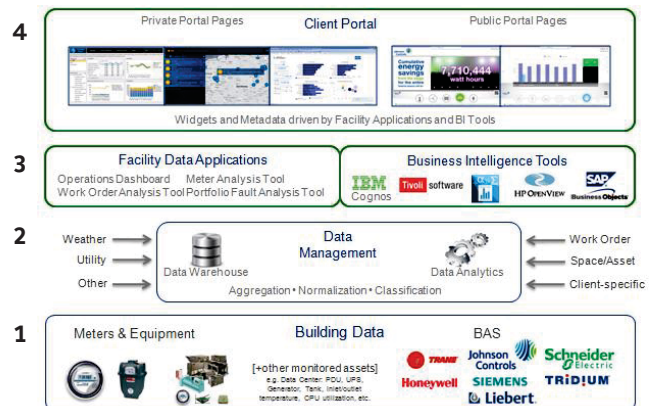
Metasys Enterprise Energy Optimization is a family of dashboards, metering and workflow tools that combine to help you cut through the data clutter with clarity and insight. The applications aggregate and normalize data, analyze it based on standard and client-specific priorities, and then deliver it through visually rich and easy-to-understand maps, charts and graphs. Together, these tools give you an unprecedented view into the performance of your portfolios, allowing you to ensure asset uptime, lower energy costs, increase productivity and report return on investment. Metasys Enterprise Energy Optimization applications combine to deliver value through a four-step process:

1. Gather. The applications are designed to integrate data from countless programs and systems including real estate, work order, energy spend, utilities use and building automation systems (BAS), including Johnson Controls Metasys and other BAS brands. From these various sources, standard data sets are gathered, along with any other customer-specific data that may be valuable based on the customer's goals and priorities.

2. Normalize. The data is then brought together in one place and normalized so it can be used by various applications across multiple vendors and types of devices. The full, normalized data set will then be analyzed to look for anomalies and potential problems, and to identify opportunities for improvement or optimization.

3. Deliver. The analyzed data is then delivered to two types of applications: Facility data applications and business intelligence tools. The facility data applications include dashboards and tools that will further analyze the data to uncover hidden insights, identify faults, prioritize them and allow building professionals to respond to events and alerts. By feeding the normalized data into business intelligence tools, organizations can track building performance against other business goals, such as measuring the amount of energy used per manufactured unit.

4. Visualize. Analyzed, prioritized data is only valuable if it can be easily interpreted. Metasys Enterprise Energy Optimization applications translate data into visual cues that are displayed two ways: A public portal, also known as a "Green Kiosk", displays metrics on things like energy and water use in a way that can be easily understood by the general public. And private portal pages are used by facility staff to assess situations and respond to events and alerts.



METASYS ENTERPRISE ENERGY OPTIMIZATION APPLICATIONS

VIEW & ANALYZE PORTFOLIO PERFORMANCE IN REAL TIME

The **ENTERPRISE DASHBOARD** provides a map-based, high-level overview of your entire real estate portfolio, along with the ability to drill down to individual regions or facilities for more focused views of performance. With the Enterprise Dashboard, you can:

Navigate your way. What's intuitive for one user may not work well for another. On the Enterprise Dashboard, you can drill down to levels of detail using whatever method you prefer, from a scrolling list of facilities, a text search or by zooming in from a map of your real estate portfolio.

Easily identify key performance indicators. Across the vast sources of data being pulled into the dashboard, selected, key metrics can be aggregated for the entire portfolio. The data can be displayed as either graphics or text, and can be exported for use in spreadsheets or other third-party applications.



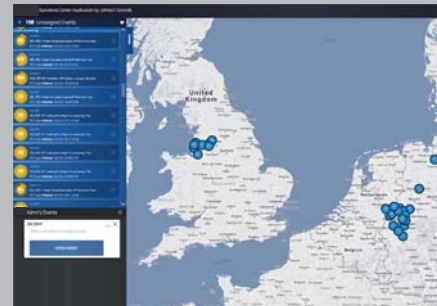
INCREASE PRODUCTIVITY WITH SIMPLE, EFFICIENT WORKFLOW

The **OPERATIONS DASHBOARD** is designed to help you cut through the clutter, by displaying information in a way that's relevant, meaningful and actionable. With it, you can:

Prioritize response. The Operations Dashboard organizes performance information in priority order so you can easily see which efforts will have the greatest impact tied to your specific goals, and with the least amount of hands-on effort.

Eliminate duplication of effort. On the Operations Dashboard, priority issues are placed atop a stack of event banners, allowing authorized operators to simply drag events from the stack and into their workspace. Once an operator has 'claimed' an event banner, that event is removed from the public stack, eliminating the conflict of multiple operators working on the same problem.

Take appropriate action. The Operations Dashboard offers a simple workflow to respond to events and alerts. It presents detailed information on the event, a work order history related to the event, and large decision buttons to Suppress (hide for now), Abandon (return it to the queue), or Create Work Order (act on it). The Create Work Order action is tied to a maintenance management system, such as Maximo, to automatically generate work orders in that system.



SHOW OFF YOUR EFFORTS TO FOSTER GOOD WILL AND FURTHER SUCCESS

Most people have no idea if the buildings they occupy are well run or highly inefficient. The **GREEN KIOSK DASHBOARD** is designed to help you spread the word about your sustainability efforts. The public-facing, dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors. With it, you can:

Tell relatable story. The Green Kiosk displays metrics on things like energy and water use in a way that can be easily understood by the general public. For example, would occupants or visitors to your facility know what it means to reduce CO2 emissions by 24 tons in one week? They may have a greater appreciation for your efforts if the result – a reduction of 24 tons – was displayed with an interpretation such as, “That’s the equivalent of taking XX cars off the road.”



Foster good will and accelerate results. As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

EXPOSE ANOMALIES AND INEFFICIENCIES

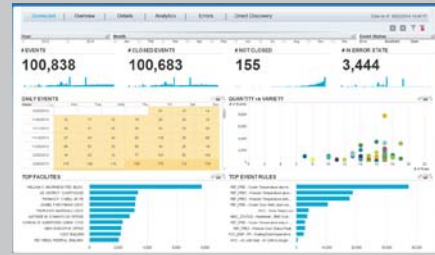
The **METER ANALYSIS TOOL** application includes a collection of visualization widgets to explore and uncover irregularities within energy and other metered utilities. Widgets include energy intensity, campus view, facility comparisons, utility-use heat map, and usage profiles mapped to calendar days. With the Meter Analysis Tool widgets, you can:

- Uncover anomalies.
- Incorporate weather data such as outside temperature and humidity.
- Explain past performance.
- Direct attention to areas of importance.
- Benchmark utility usage.



UNCOVER HIDDEN INSIGHTS WITH AUTOMATED ANALYTICS

The **FAULT ANALYSIS TOOL** is designed to help you proactively discover anomalies and equipment performance issues before they lead to alarms, occupant discomfort or even system failure. By taking a proactive approach to fault detection, you can operate buildings more efficiently and competitively. The Fault Analysis Tool automates detection of faults and other conditions of interest based on priorities you establish. With it, you can:



Customize rules. Rules can be configured to monitor and alert on faults or other conditions of interest in real time, 24/7, or can be applied to historical data to look for past events.

Minimize rule entry. Data from building management systems are automatically imported and grouped by system. A single rule definition can then be applied to a class of system, providing wide coverage with minimal effort.

Avoid costs. Critical events can be tagged for escalation and all events can be optionally monetized to focus priorities.

Analyze root causes. By analyzing the frequency of events and their escalation rates over time, the tool helps you gain insight into the overall performance of key systems and patterns of activity, which may provide clues to root causes.

Add analytics. New areas of interest can be added to the rule set over time, creating an even more powerful capability. And because they can be customized, the rules are aligned with the operational interests of each facility.

Expand surveillance. Initially, rules may be created to uncover problems and suggest root causes and remedies. Later, these same rules guard against reoccurrence of faults as equipment and systems age, or from previously unidentified causes.

The **WORK ORDER ANALYSIS TOOL** is designed to track the status of work orders generated through the Operations Dashboard.

With it, you can:

- View, at-a-glance, the number of work orders reported, closed and the total number of hours worked.
- Track work orders by day, type and location.
- Drill down to view the details of any metric.



GAIN UNPRECEDENTED VISION AND CONTROL

Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give facility professionals' unprecedented control over the operation of their portfolios, with easy-to-use tools designed to help them ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information visit johnsoncontrols.com/metasys or talk to a Johnson Controls representative at (844) 883-1291.



REINFORCE YOUR PUBLIC IMAGE *as a sustainability leader with the METASYS® GREEN KIOSK DASHBOARD*

Put your energy efficiency efforts on display

Part of your commitment to energy efficiency and sustainability is demonstrating how your efforts are benefiting the environment. The Metasys Green Kiosk ensures your energy efficiency efforts get noticed by displaying the impact of your initiatives in real time – on a touch-screen kiosk and online. The Metasys Green Kiosk uses maps, charts, graphs and videos to communicate performance in ways that are easily understood by your facility’s occupants and visitors.

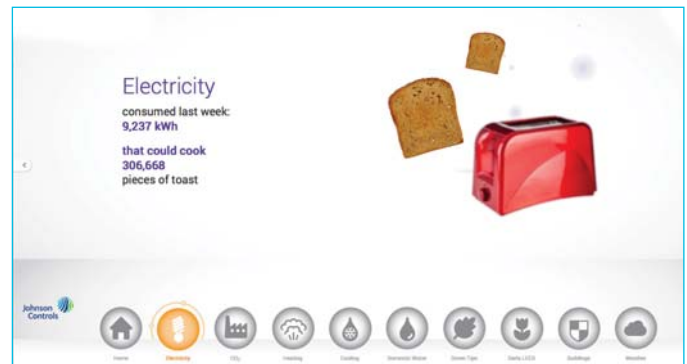
CHOOSE THE INFORMATION YOU WANT *to display*

The Green Kiosk makes use of the Johnson Controls Metasys building automation system to gather data on building performance. And because Metasys integrates with so many different devices, there’s almost no limit to the amount and type of information you can collect and present at the kiosk. Most Green Kiosk users choose to display standard metrics such as electricity usage and water consumption. But it’s possible, for example, to measure how much water is being used specifically by lawn sprinklers or how much energy is used to charge someone’s electric car. If it can be measured, it can be displayed.



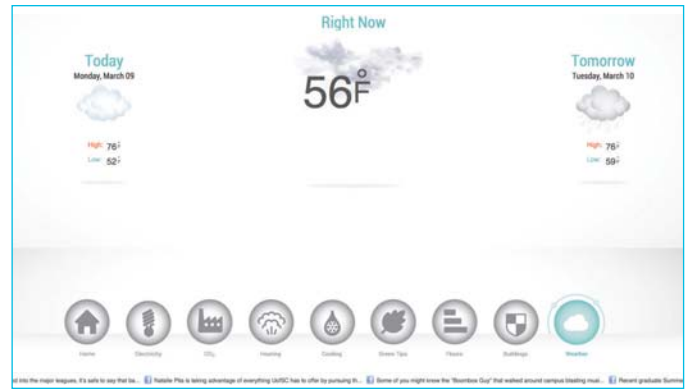
TELL A RELATABLE *story*

Because the Green Kiosk is a public-facing tool, it’s designed to display information in a way that’s easily understood by your facility’s occupants and visitors. For example, instead of just displaying the number of kWh consumed during the previous week, the Green Kiosk also translates electricity use into terms that are relatable: “That’s enough energy to cook 1,922,711 pieces of toast.” The ‘equivalents’ – as they’re called – can also be customized to make them even more meaningful to your audience. On a college campus, an ‘equivalent’ might read, “The cost of last week’s electricity could buy 1,642 slices of pizza.”



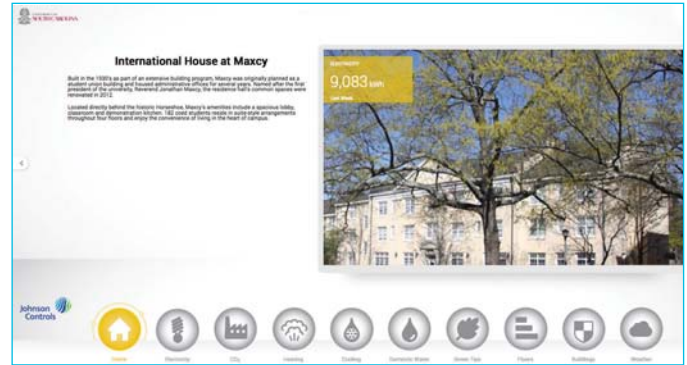
INTEGRATE NON-BUILDING DATA

Green Kiosks are often located in the lobby of a facility, where monitors may already display information such as news, weather, traffic and the company's stock price. If you're currently using monitors to display information in a public space such as a lobby, the Green Kiosk can also pull and display that kind of non-building data within its interface, allowing you to maximize the investment you've made to generate the data.



MANAGE YOUR OWN CONTENT

With the Green Kiosk, you can authorize users within your organization to update the content, eliminating the need to pay (and wait for) a third party to make a change when it's needed. Managing your own kiosk content not only saves time and money, it allows you to easily keep the content fresh and relevant, which will in turn, help to engage occupants and visitors.



FOSTER GOOD WILL *and* ACCELERATE RESULTS

As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

Most people have no idea if the buildings they occupy are well run or highly inefficient. The Green Kiosk's dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors.



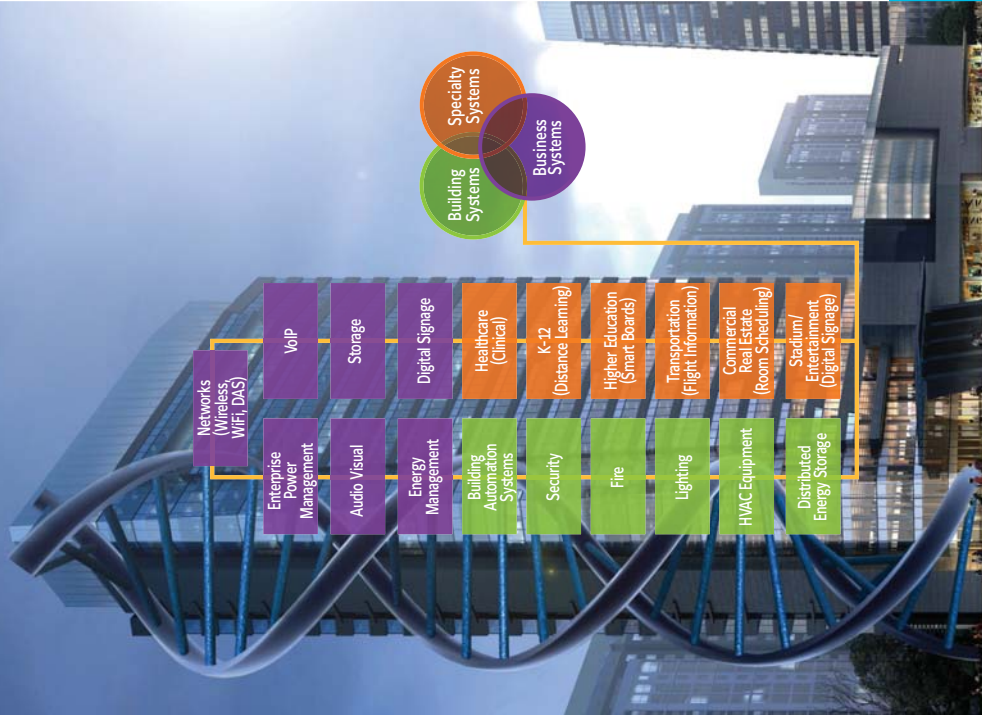
AND THAT'S JUST THE BEGINNING

The Metasys Green Kiosk is part of a family of dashboards, metering and workflow tools designed to help you to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise. Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give you unprecedented control over the operation of your portfolio, with easy-to-use tools designed to help ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information about the Metasys Green Kiosk or Metasys Enterprise Energy Optimization, visit johnsoncontrols.com/metasys, or talk to a Johnson Controls representative at (844) 883-1291.

WE ENGINEER GENIUS INTO A BUILDING'S DNA

Building Wide Systems Integration brings technologies together to create efficiencies for the life of your building.



Building Wide Systems Integration

There's a better way to construct a smarter building. By leveraging convergence of building, business/IT and specialty systems from the beginning you can have a bigger impact on first and lifecycle costs and enhance the functional capabilities for your business. By simplifying and optimizing the process, you'll create an innovative, optimized, efficient and sustainable environment that delivers connected experiences for the people who work there.



Intelligent Building Integration Framework

The Intelligent Building Integration Framework (IBIF) is our process for designing and implementing integrated systems. IBIF consists of a catalog of technologies and use cases across the building, business and specialty system domains. IBIF allows you to implement a proven set of technology designs to meet building and business needs.



Technology Contracting

Save time, reduce risk and decrease construction and operating costs while ensuring that technology is deployed and integrated in an orderly manner with Johnson Controls as the single point of responsibility for technology implementation. Along with an innovative Partner Ecosystem, we provide critical continuity from start to finish. The result is an optimized, intelligent and secure infrastructure that delivers the outcomes you require.



Design Assist

We'll collaborate with the design and construction teams at the earliest phase of the project to optimize the layout and integration of systems and technologies. In partnership with the design team, Johnson Controls makes recommendations for product selections that maximize the efficiency, integration, interoperability, and lifecycle service of technology systems. Moving these decisions to the earliest phase of the design process drives consensus, mitigates construction risk, results in fewer change orders during construction and systems installation, and delivers customer-defined outcomes.



Partner Ecosystem

Our Partner Ecosystem of manufacturers, distributors and value added resellers brings proven, repeatable, best-in-class technologies to your project. This network of industry leaders has the experience, expertise and innovative services and solutions that meet energy, technology and operational objectives, while reducing cost and risk.



Technology Navigation

This structured, interactive process allows you to quickly assess and prioritize technology needs and investments. Participants include a cross functional team from your enterprise, and the construction project team - architects, engineers and general contractor - as required. It results in a technology roadmap, process improvements and a direct path to addressing your most important needs with the most impact.



Integration Hub

We test the interoperability of building, business and specialty systems to create the connected environment that meets energy, technology and operational objectives. The controlled test and development environment of the Integration Hub leverages the Metasys® building automation system platform to validate potential use cases, resulting in tested integrations and interoperability that functions more securely, reliably, scales based upon need, and positively impacts outcomes.



Day 2 Services

After implementation, we resolve critical network issues via a combination of maintenance and warranty coverage for network equipment. We offer 24x7x365 customer support from the Johnson Controls Remote Operations Center (ROC). We'll proactively monitor your network to detect potential problems before they arise, troubleshoot and resolve problems remotely, or send a qualified technician onsite to fix, repair, or replace non-performing components.



Technology Refresh

Update your IT infrastructure during a building retrofit to ensure the latest technology, intelligent infrastructure and bandwidth are in place to handle future innovation.

BUILDING WIDE SYSTEMS INTEGRATION POWERED BY BRAINS









BUILDING WIDE SYSTEMS INTEGRATION

Bringing technologies together to create efficiencies for the life of your building.







Building Systems & Equipment

Building Systems integrations are the key building blocks for creating a smart building and driving increased efficiency.

HVAC Controls		HVAC Equipment	
Building Management		Air Systems	
Security		Fire	







Business Systems

Business Systems integrations provide an avenue to create more complex, automated workflows that positively impact energy utilization, staff efficiency and overall project cost.

Audio Visual		Networks, Wi-Fi, DAS, GPOS	
VoIP		Power Management	
Distributed Energy Storage		Digital Signage	

Vertical Market Specialty Systems

Vertical Market Specialty Systems integrations combine the benefits of Building and Business Systems integrations with Vertical Market-specific Systems. Our vertical market expertise allows us to understand the unique opportunities, challenges, regulations and compliance issues within each market.

Healthcare		Higher Education		K-12	
<ul style="list-style-type: none"> • Clinician Mobile Communications • Nurse Call • RTLS, Patient Wandering, Infant Protection • Patient Monitoring/Telemetry • Patient Engagement Systems • HEO 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Conference Room Scheduling • Office Hoteling • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Conference Room Scheduling • Office Hoteling • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Wireless VoIP • Distributed Antenna Systems • Shot Detection • Solar LED Lighting • Parking Systems • In-car Police Video • Public Wi-Fi
Transportation		Stadiums & Entertainment		Commercial Real Estate	
<ul style="list-style-type: none"> • Ramp Service Management • Baggage Handling System • Flight Display System • RTLS/Wayfinding • Distributed Antenna Systems • Parking Systems 	<ul style="list-style-type: none"> • Command Center Solutions • Emergency Communications • Video Analytics • Broadcast/Production Systems • Distributed Antenna Systems • Scoreboards • Fan Experience Applications • Point of Sale • RTLS/Wayfinding • Kiosks 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Conference Room Scheduling • Office Hoteling • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Command and Control Centers • Visitor Management • Conference Room Scheduling • Office Hoteling • Digital Signage • Distributed Antenna Systems • Parking Systems • Point of Sale • RTLS/Wayfinding 	<ul style="list-style-type: none"> • Wireless VoIP • Distributed Antenna Systems • Shot Detection • Solar LED Lighting • Parking Systems • In-car Police Video • Public Wi-Fi 	<ul style="list-style-type: none"> • Wireless VoIP • Distributed Antenna Systems • Shot Detection • Solar LED Lighting • Parking Systems • In-car Police Video • Public Wi-Fi

CONVERGED TECHNOLOGY SOLUTIONS TO PRODUCE SMARTER BUILDINGS

Printed on recycled paper. Johnson Controls, the Johnson Controls logo and Technology Contracting are registered trademarks of Johnson Controls or its affiliates, in the United States of America and/or other countries. ©2016 Johnson Controls, P.O. Box 423, Milwaukee, WI 53201. Printed in USA. MSC - 931 www.johnsoncontrols.com

Connected, safe, secure and sustainable buildings, campuses and cities.

Maximum Value Delivered

- Systems that work Day 1
- Reduction in first and lifecycle costs
- Sustainability
- Serviceability of all systems
- Desired outcomes – today and in the future





Johnson Controls RFP Response to The Interlocal Purchasing System (TIPS)

RFP 180203 Renewable Energy and Solar Solutions and Services

March 16, 2018

© 2018 Johnson Controls, Inc. Do not copy (physically, electronically, or in any other media) without the express written permission of Johnson Controls, Inc.



Johnson Controls, Inc.
5757 North Green Bay Ave P.O. Box 591
Milwaukee, WI 53201



The Interlocal Purchasing System (TIPS)
Region 8 Education Service Center
4845 US Hwy. 271 North
Pittsburg, Texas 75686

Dear TIPS Selection Committee,

TIPS members are well aware that the infrastructure and services required to meet the unprecedented demands of public facilities have been on the rise, while available funding has been heading in the opposite direction.

The last thing TIPS members need to worry about is the facilities that make their mission possible. That is where Johnson Controls can step in to help. As leaders in building efficiency, we provide many Renewable Energy and Solar Solutions and Services that can help TIPS members reduce energy costs and improve the energy efficiency of their facilities.

Johnson Controls can support TIPS members nationwide from over 140 branch locations, including 10 branch offices in Texas. Our Advanced Solutions Team can help TIPS members develop solar, wind power, energy storage, geothermal, or biomass projects at their facilities. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

Johnson Controls has supported **over** 20 TIPS customers through our current and recent contract awards. Because we view ourselves as partners with our customers, we provide them with more than a set of technological upgrades based on our own equipment. Instead, we provide them with options for improving their facilities that enable them to choose the combination of improvements that makes the most sense for their organization. In doing so, we leverage existing technological investments to the largest extent possible.

We thank you in advance for giving us the opportunity to be considered for this opportunity, and we look forward to working with TIPS members on future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Pergande".

Andrew Pergande

Group Purchasing Organization Manager

Andrew.Pergande@jci.com

1-414-524-6937

Table of Contents

- Executive Summary 2**
 - Unparalleled Experience2
 - We Are Where You Are.....2
 - Flexibility and Consistency3
 - Safety3
 - Commitment to Diversity.....3
 - Commitment to Sustainability3
 - Pricing4
 - Conclusion.....4
- Proposed Goods and Services 5**
 - Solar Photovoltaic6
 - Wind Power7
 - Alternative Energy Powered Heating and Cooling.....7
 - Lighting for Street and Parking Lights7
 - Pumping Systems8
 - Microgrid.....9
 - Energy Storage9
 - Waste Heat Recovery and Urban Biogas Utilization 11
 - Sewer Heat Recovery 11
 - Renewable Energy Services 12
 - Past Experience with TIPS 13
 - Conflicts of Interest..... 14
 - Deviations of Terms 14



Executive Summary

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members can engage an Original Equipment Manufacturer (OEM) that can provide a single point of contact and accountability for all of their Renewable Energy and Solar Solutions and service needs. Our expert level of expertise in solar, wind power, energy storage, geothermal, or biomass will help TIPS members ensure that their project produces significant energy savings and the highest return on investment.

Unparalleled Experience

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members will engage an industry leader that has been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies.

Additionally, we are the national leader in Energy Saving Performance Contracting (ESPC) with a greater market share and more experience than any of our competitors. We currently hold over \$6 billion in performance-based guarantees through approximately 615 projects across North America.

This experience ensures that TIPS members can realize a high-performance project that is designed, implemented, commissioned, and serviced by reliable experts that have successfully performed similar projects for other K-12, higher-education, state, and local government bodies.

We offer our customers the reliability and financial stability of a Fortune Global 500 company with over 121,000 employees. Our sales for fiscal year 2017 totaled \$30 billion. Our financial muscle is balanced by a strong code of ethics. For ten years in a row, Johnson Controls was named one of the “World’s Most Ethical Companies” by the Ethisphere Institute. Corporate Responsibility Magazine has also recognized Johnson Controls as the #14 company in its annual “100 Best Corporate Citizens” list.

Our long history and proven capabilities illustrate that we can perform all phases of any project and provide TIPS member entities with best value through a coordinated set of impactful Energy Conservation Measures (ECMs), infrastructure upgrades, equipment maintenance and service, IGAs, or any combination of service that they require.

We Are Where You Are

Although Johnson Controls has a large national and international footprint, we understand the importance of having a local presence in the communities we serve.

Our extensive branch network is 100% company owned and operated, which enables us to share resources, expertise, innovations, and our corporate values throughout the entire branch network. This enables all of our

branch employees to benefit from the experience and lessons learned on projects we perform across the nation and around the world. No other Energy Services Company (ESCO) has a similar network.

By investing in local branch locations, we enable local decision-making authority that makes it easier to respond to the needs of customers in a timely manner. Our investment also helps support the communities where we live and work.

Flexibility and Consistency

TIPS members can benefit from our established and uniform development and implementation approaches that provide a consistent level of service and expedited delivery. We will apply the same management approach at a small-town school district, as we will for a world-renowned University or large state customer with highly dispersed facilities. This ensures that each project meets our standards of quality, safety, and maximum return on investment for our customers.

With the large number of resources available to our teams, we are able to provide projects with additional staff to meet aggressive deadlines. Additionally, our ability to streamline the development, procurement, and implementation processes ensures faster upgrades of facilities so our customers will realize savings sooner.

Safety

At Johnson Controls, we realize safety is just as important to you as it is to us. From onsite field employees to corporate offices, safety is built into all the services we provide.

Compared to the industry averages for Total Recordable Injury Rate (TRIR) and Lost Time Injury Rate (LTIR), Johnson Controls is leading the way in safety. In fact, our current safety record surpasses the published future safety goals of most industrial leaders.

Commitment to Diversity

For any project we undertake, we endeavor to maximize participation from minority-owned and Historically Underutilized Businesses (HUBs). This is an increasingly important goal for many of our customers, and benefits Johnson Controls by expanding our pool of available talent in each marketplace.

Johnson Controls is committed to being a leader in supplier diversity. By incorporating certified minority-owned suppliers, as well as small or disadvantaged businesses, into our customer solutions, we economically equip entire communities and gain a competitive advantage. We have more than 700 diverse suppliers representing more than 50 product and service categories. Approximately 7% of Johnson Controls' outside purchases are made with diverse suppliers and contractors with minority purchases making up approximately 80% of the spend. The remaining external purchases are from woman-owned firms and firms designated by government agencies as small or disadvantaged businesses.

Because of these efforts, Johnson Controls has joined the elite Billion Dollar Roundtable, an organization comprised of only 24 U.S. corporations that spend more than \$1 billion annually with minority- and women-owned businesses.

Commitment to Sustainability

Sustainability is a cornerstone of our business. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our corporate headquarters campus in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.

Since 2002, we have publically reported various sustainability data, including safety, and environmental metrics. We published our first annual Business and Sustainability Report in 2003, which details our performance in accordance with the Global Reporting Initiative (GRI) guidelines – the most widely accepted global standard for reporting corporate responsibility. Our Sustainability Report is available for you to view online at:

<http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies/business-and-sustainability-report/environmental-leadership>

Pricing

Johnson Controls offers Cost Plus pricing for renewable technologies. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts.

For estimating, our teams mainly use Nx Gen for Service work and the Projects Development Tool for larger scale projects. These are the tools we have used for some time and have used previously with TIPS and TIPS customers. Johnson Controls is willing to engage TIPS in an approval process for these tools if necessary.

Conclusion

TIPS members can ensure the success of their projects by selecting an experienced firm with a local presence and a long record of accomplishment in K-12, higher education, and state and local government projects. As the national leader in Renewable Energy and Solar Solutions and Services, we are uniquely well positioned to partner with TIPS members on their projects because we can provide a single source of accountability for any project. Whether your project is a Microgrid, a small solar system, emergency service, or any combination of services or products, TIPS members will get the same reliable service, high-performance, and attention to detail without regard to the size of your project.



Proposed Goods and Services

Warren S. Johnson, a professor at the State Normal School in Whitewater, Wisconsin, received a patent for the electric room thermostat in 1883. His invention launched the building control industry and was the impetus for the Johnson Electric Service Company, which he founded to manufacture, install, and service automatic temperature regulation systems. This foundation ignited a culture of customer-focused innovation for 130 years.

That passion continues today as Johnson Controls is a global leader in delivering solar, wind power, energy storage, geothermal, or biomass solutions. To date, we have been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies. Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000.

Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000. Our renewable technologies customers include K-12 school districts, higher education customers, local governments, state government departments, and federal government agencies.

Renewable solutions are a major focus of our organization. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our Building Efficiency headquarters in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.



Our renewable energy team has the capability to evaluate, design, and develop a diverse array of renewable energy technologies, such as solar, wind, bio-mass, landfill gas, and geothermal. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

The following list shows a subset of our renewable energy system capabilities:

- Solar photovoltaic
- Wind turbines
- Thermal heating systems
- Alternative energy HVAC
- Geothermal heat pumps
- Street and parking lighting
- Pumping systems
- Microgrid
- Energy storage
- Solar daylighting
- Biomass plants
- Solar thermal domestic water heating
- Solar transpired walls

Solar Photovoltaic

The Solar PV team is responsible for engineering design or oversight of design on solar PV projects, including product selection, vendor relationships, output modeling for PV systems, and preliminary cost estimation. This team has implemented over 100 Solar projects, including projects at Tulare, CA where we installed a 30 Kw PV system in the carport and a 1 MW system on land that generates 1,860,000Kwh annually.

The **State of Utah** implemented a **Solar for Schools** program with Johnson Controls that provided 73 5-kilowatt, high efficiency solar modules with inverters, mounting racks, spec sheets, and full warranties. The goal of the program is to mount at least one module in each of the state's 41 districts. We also provided training in renewable energy to help school staff ensure performance.

Other projects include the State of Utah, Mount Wachusett Community College, the U.S. Bureau of Land Management, and the Marine Corps Air Ground Combat Center in Twentynine Palms, California.

At **Wyandotte Public Schools** in Michigan, Johnson Controls installed an 8.4 kW-AC photovoltaic system on the roof of Wilson Middle School. The PV array provides electricity directly to the school to reduce the amount of electricity purchased from the local utility.

This installation is part of a multi-phased performance contracting program implemented over several years to reduce operating costs and improve comfort throughout the school district. The improvements enabled all 11 facilities across the district to obtain ENERGY STAR certification, making Wyandotte Public Schools the first district in the state of Michigan to achieve this distinction.



Solar for Schools is expected to remove more than 8,000 tons of carbon dioxide from the atmosphere over 20 years, equivalent to the carbon offset that would be generated by planting 11,000 trees and letting them grow for ten years.



At San Juan College in Farmington, New Mexico, Johnson Controls provided a PV array, solar thermal floor heating, a geothermal heat pump, controls, and a monitoring system. The monitoring system was used for student instruction in the outdoor learning laboratory. The building received LEED Gold Certification.

Wind Power

Johnson Controls has experience with implementing power generating wind turbines.

At the Bureau of Land Management Field Office in Rawlins, Wyoming, we installed a new 120-foot wind turbine rated at 100 kW with an estimated output of 300,000 kW hours per year.

Johnson Controls provided a turnkey installation of a 100kW wind turbine for the Rawlins Field Office. Manufactured by Vermont based Northern Power Systems, the Northwind 100 wind turbine will replace the existing 20kW turbine with a high reliability direct drive (gearless) design.

An excellent wind resource exists at the site, and the Northwind 100 is expected to produce over 300,000 kWh per year (approximately 60% of the annual energy needs of the Rawlins Field Office).



Alternative Energy Powered Heating and Cooling

Ground-source geothermal heat pump system can provide a "green" solution to heating and cooling challenges, offset capital HVAC costs, and address lack of redundancy.

A geothermal system provides heat in the winter by tapping into the earth to capture its renewable energy. It provides cooling in the summer by removing heat from the home and placing it in the cooler earth.



At the Claremore Campus Rogers University we provided a 416 tons mono-loop central geothermal system.

Lighting for Street and Parking Lights

Johnson Controls brings the capabilities of **90 dedicated lighting professionals**, including six **NCQLP** certified lighting designers, who bring hundreds of years of experience designing and implementing lighting projects. As the largest non-OEM lighting retrofit contractor in the U.S. with more than **250,000 fixture replacements/retrofits each year**, we are at the forefront of new lighting technologies.

We can develop intelligent, adaptable and future ready designs so additional systems for parking management, traffic control, cameras/safety, digital signage and water/climate detection can easily be added. We also have an in-house material procurement team to get you the absolute best material pricing without additional layers of mark up.

Effective street lighting design and selection focused on extending lifecycles and reducing O&M costs requires specialized expertise. Johnson Controls brings the capabilities of in-house lighting experts, Johnson Controls Lighting Services, as well as specialized modeling, mapping and project management tools to keep you up to date on the project's progress. In all, we have worked with numerous municipalities across the country on similar street lighting design and technology selection projects, retrofitting or replacing more than 250,000 fixtures each year.



At the City of Binghamton, NY, we reviewed all municipal lighting, including GPS mapping of all lights, and an analysis to determine energy savings. We also used a pilot program in three locations to provide data before full installation. Energy and maintenance savings from this effort will offset project costs paid for through the City's capital bond.

Reduced Associated Carbon Footprint

Johnson Controls' lighting experts will help you select the right solution to significantly reduce the carbon footprint of your street or parking lights. As a leader in local government solutions, we can also expand this effort to your facilities. We can not only deliver this effort, but serve as your long-term energy partner, providing you with a comprehensive, holistic city-wide approach to carbon management and energy efficiency.

Reduce Costs Associated With Street Lighting Operations

We develop detailed and individualized maintenance programs in conjunction with clients and in coordination with your staff to achieve your organizational, operational, and financial goals. We are vendor neutral, focused only on getting the best technology option at the best price for the customer.

Reduce Light Pollution Associated With Street Lighting

Johnson Controls knows how to design optimal street lighting projects using photometrics that maximize safety and minimize light pollution, having implemented several dark sky compliant projects nationwide. In Hawaii, we effectively worked with State and community representatives to create a regulation-compliant design for 21,000 street lights that also had community input and acceptance.

Experience with Street Light Infrastructure Acquisition from Utilities

Johnson Controls has demonstrated experience and a proven process for working with municipalities and utility companies on street light acquisition. We worked closely with NYSEG on our street light project with the City of Binghamton, as well as with utilities across New York and Pennsylvania as part of numerous other municipal street lighting acquisition projects.

Experience Developing and Implementing Street Lighting Projects

We have worked with numerous municipalities across the country on street lighting design and technology selection projects, having recently installed 70,000 LED street lights. Our dedicated product testing and technology vetting group is continually testing new products and we only recommend those that have achieved approval through a technical, financial and commercial risk review for use in a long-term performance contract. We also test proven technologies to ensure they perform for cities over the equipment life cycle, and use GIS mapping to expedite the street light inventory process.

Pumping Systems

We have experience with HVAC, indoor air quality, chlorine management, chemical detection and measurement, lighting, locker room water improvements and related equipment in pool and recreational facilities. Our experience includes the implementation of several improvement measures such as swimming pool de-humidification systems and gymnasium ventilation improvements.



Meeting Your Dark Sky Goals

We have met similar dark sky requirements on our work with the Hawaii DOT. We accompanied State Highways representatives to meet with the Starlight Committee, the local dark sky organization, to discuss dark sky and other observatory needs. We were able to effectively work with State and community representatives to create not only a regulation-compliant design that also has community input and acceptance.

Microgrid

With our strong background in designing and building renewable applications, Johnson Controls develops or participates in many microgrid implementations.

For example, at **Isle Royale National Park** Johnson Controls installed Distributed Generation and Control Systems to operate as a remote microgrid. This project included three separate locations up to 40 miles apart from one another, including Mott Island, Windigo, and Rock Harbor.

Johnson Controls installed 23 solar thermal domestic hot water pre-heating systems including 61 collection panels across various facilities at the Rock Harbor and Windigo campuses. The solar thermal systems provide approximately 78% of the estimated annual energy required for domestic hot water at Windigo.

At the Rock Harbor site, the systems displace 87% of the estimated annual electricity use and 45.7% of estimated fuel oil use for domestic hot water. They conducted energy efficient lighting upgrades, and installed solar PV hybrid system, solar attic fans, and water conservation system.

The project will alleviate dependence on diesel and showcase the island as a model of sustainability for other Government agencies to follow. The total facility size for Phase 1 is 66,931 square feet. This will result in 2,724 million Btus saved annually and 19,000-gallon reduction in annual diesel fuel consumption.

“Johnson Controls was the most qualified ESCO to assist Isle Royale with our savings goals. Their ECM options are innovative and their strong local resources are unmatched. The Johnson Controls Team understands our objectives and is committed to building a relationship with us.

”

Phyllis Green
Isle Royale Superintendent

Energy Storage

Batteries are a core business for Johnson Controls. We have 100+ years of experience delivering batteries that meet our customers’ evolving needs. We’re the world’s largest supplier of vehicle batteries, producing one-third of the industry’s total output every year. Our distributed energy storage systems include cell-level monitoring and control, as well as smart algorithms that promote long-term cell life.

The Stationary Energy Storage team helps customers realize savings through energy storage and peak shaving. They engineer, develop, manufacture, and sell stationary energy storage solutions that use smart technology to reduce energy costs by decreasing electric demand charges.

Johnson Controls provides the most efficient and reliable energy storage system for enabling grid optimization and renewable energy integration. The strength of our offering comes from the combination of our advanced Li-Ion battery technologies and our many decades of experience as a pioneer in the development of energy control systems.

Energy storage is the process of collecting and preserving energy for on-demand use and is accomplished through the introduction and use of devices or physical media that store energy to perform useful processes at a later time.



With this solution, Johnson Controls employs world-class battery technology, building systems expertise, and intelligent controls to facilitate energy storage at the lowest lifecycle cost. Johnson Controls' energy storage solutions include:

- Battery Power Stationary Storage
- Solar PV
- Thermal Energy Storage Systems
- Ice Storage
- Microgrids

By combining advanced energy technology with in-depth building knowledge, Johnson Controls provides clients with holistic energy storage solutions that work best based on specific application needs and requirements, in front of or behind the meter. Because each client's needs vary greatly, Johnson Controls' energy storage solutions have been designed with scalability in mind.

Battery Power Stationary Storage

Stationary Storage has improved to the point where customers are seeing significant economic benefit from employing battery systems to provide a hedge against spiking demand charges. Our stationary battery systems store excess energy when the power-generating systems are running, and provide power when the power-generating systems are offline.

Energy Storage System - In-Building

In-building distributed energy storage systems help to manage energy use, cut costs, and provide backup power for single buildings as well as entire campuses or enterprises.

Modular Container Distributed Energy Storage System

This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants. The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost.

Thermal Energy Storage Systems

Thermal Energy Storage systems reduce on-peak electrical demand and energy costs. With adequate access to unobstructed sunlight, solar thermal energy can be created by absorbing the sun's heat with devices such as flat-plate solar energy collectors. A heat transfer fluid passes through tubes within the solar collectors where it is warmed and then distributed to the heating system.



Ice Storage

Ice storage air conditioning is the process of using ice for thermal energy storage. This system provides efficient cooling during the day by circulating refrigerant through coils in its ice storage tank, eliminating the need to run an energy-intensive compressor during peak daytime hours. The system re-freezes ice each night when electricity generation is cleaner, more efficient, and less expensive.



L1000 In-Building Energy Storage System



Waste Heat Recovery and Urban Biogas Utilization

Many of our projects make use of waste heat recovery technology. For the **City of Baltimore Back River WWTP**, Johnson Controls developed a combined heat and power plant that uses the remainders of treated wastewater as fuel.

The plant will generate more than 2.4 megawatts of electricity per year, provide steam to offset process-heating requirements and produce hot water for boilers. As an added benefit, the digester gas cogeneration plant will reduce emissions, save taxpayer dollars, address workforce development, and support the local economy.



Johnson Controls also designed and constructed a 1,000 kW ground-mount PV system located at the Back River Waste Water Treatment Plant. Using SolarWorld modules and leveraging a grant from the Maryland Energy Administration, this project supports the City's objectives toward self-generation of 30% of all energy. This is a fixed-tilt, custom racking system suitable for the site's topography.



At the **City of Fort Worth**, Johnson Controls began an energy efficiency partnership in 2003 that has grown to seven phases of major infrastructure improvements in 107 city-owned facilities. The \$69 million investment will save the City \$93 million over a 15-year period. Johnson Controls guarantees these savings under the Energy Savings Performance Contract (ESPC) funding vehicle authorized by the State of Texas for public entities.

The largest of the seven projects occurred at the **Village Creek Water Reclamation Plant** – a \$35 million initiative that has significantly benefitted the City's goal to establish Village Creek as a Net Zero Energy Facility. This ESPC project reduced electrical consumption by 39%, which has taken more than \$2.5 million off the plant's electric bills each year. In addition, Oncor Electric provided \$1.3 million in rebates to the City due to electric demand reductions.

For this project, Johnson Controls developed and implemented a 50,000 lb/hour, 235-psig steam system. Heat was recovered from combustion turbine exhaust, and supplemented with heat created by burning biogas produced at the wastewater treatment plant in a duct burner. This project also involved improvements to increase the production of biogas through the addition of high-strength waste to the digesting bio solids.

Sewer Heat Recovery

Johnson Controls also has experience providing sewer heat recovery solutions. At the **Beaufort-Jasper Water & Sewer Authority** in South Carolina, Johnson Controls used finished water (i.e. potable or drinking water) as a heat sink via a plate and frame heat exchanger for controlling the environment within their administrative building.

This concept is similar to a Geothermal HVAC. By using reversible heat pump chillers to meet their heating/cooling needs, Johnson Controls was able to provide both heating and cooling for water source heat pumps in the older building section as well as newer VAV/Air Handling system in the newer part of the facility. This project qualified for local utility incentives of approximately \$132,000 and had an annual expected energy savings of approximately \$48,000 per year.

Renewable Energy Services

Every renewable energy project requires a process that includes:

- Onsite evaluation of energy consumption
- Return on investment analysis
- Consultation and recommendations
- Custom system design

We have performed this process for over 3,100 projects through our performance contracting. Each assessment considers the needs of the customer and project stakeholders, which can include a board of directors, local government departments, or the general public.

The Johnson Controls strategic planning process enables our customers to clearly identify their facility and operational strengths and weaknesses before construction begins. This allows facility and construction changes to focus on and address outlined deficiencies. Having these groups involved up-front in the process directly influences the final issues addressed in the construction phase. Some specific examples include the following:

- **Bagley School District** chose to add additional classrooms due to growing enrollment and feedback from community, teachers and staff.
- **Warren-Alvarado-Oslo School District** chose to engage in a more involved re-purpose of their elementary school classroom spaces, as well as mechanical upgrade, due to feedback from teachers and staff.
- **Thief River Falls School District** reviewed their math series as a result of feedback given by their student stakeholders.
- **Duluth School District** chose to add/revise the circulation path and design intent, based on specific feedback from students, teachers and staff.

Throughout our decades of experience in the energy efficiency industry, Johnson Controls has developed a four-phased approach to maximizing energy efficiency for our clients. The phases are: Preliminary Assessment, Project Development, Project Implementation, and Performance Period. The services outlined in the RFP occur during the first two phases of our process.

Onsite Evaluation of Energy Consumption

During the Preliminary Assessment phase of the project, Johnson Controls assesses the energy consumption at the site by interviewing the customer and surveying the utility bill history of the facility.

For projects with substantial technical and financial risk, this process helps mitigate the risks to the overall program by allowing the proponent and customer to avoid excessive investment of time or money early in the project when options are still being evaluated.

Johnson Controls employs a Life-cycle evaluation strategy when making long-term facility decisions. Studies have shown that first-cost centered evaluations often result in long-term cost problems, because much of the cost of building, operating, and maintaining the project falls outside of the initial first cost.

During the Project Development phase of the project, Johnson Controls conducts in-depth assessments of the facilities, which includes baseline development and a technical and economic feasibility analysis. We deploy data loggers to measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible.

Return on Investment Analysis

During the Project Development phase of the project, Johnson Controls develops a baseline, performs a technical and economic feasibility analysis, and performs a cost analysis of each improvement. We deploy data loggers to

measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible. This information help determine the potential return on investment.

Consultation and Consultation for the Right Decision

During the second phase of the project, we work closely with the project stakeholders at every major milestone to ensure the customer is aware of the project status and approve any major decision before we move forward. These meetings take place to decide on pricing, cash flow, selection of equipment, selection of subcontractors, determination of the project baseline methodology, and any other major decision.

During this phase, we meet with maintenance staff to assess the current equipment and get an understanding of the control metrics in place. We also gather existing schedules to determine how the customer uses their equipment and controls. This information helps us calculate a baseline. Working closely with customer staff, we use this phase to set an implementation timeline that fits the customer’s schedule. We understand that your facilities cannot shut down for maintenance or installation work.

Our in-house experts from all phases of the project (business and project development, engineering, commissioning, construction, operations and maintenance, as well as measurement and verification) are involved throughout the process to ensure continuity.

When designing our solutions, we consider the long-term impact (optimal learning conditions, safety, first cost, equipment selection, operational cost, energy savings, and reliability) that a specific FIM will have on facilities, staff, and students. In an education environment, the impact to safety and the learning environment is equally important. In all cases, we prioritize our work around our customer’s needs and their budget.

We present final designs and detailed project schedules for review and collaboratively determine final selection of improvements for the project.

Custom Designed System

Each system we implement is custom designed for your facility. The assessments we perform and meetings we hold all provide information to the design team. This level of information helps the design engineers create the most effective system with your budget.

Past Experience with TIPS

Johnson Controls has responded to two previous TIPS RFQs and have performed dozens of projects for TIPS member entities through the system. Since 2013, we have completed or are currently performing work through various TIPS contracts at the following locations.

TIPS Member Entities	Project Year	TIPS Member Entities	Project Year
Brownsville Public Utilities Board <i>(1 project)</i>	2017	Leander Independent School District <i>(1 project)</i>	2017
Texas State Technical Colleges – All Campuses <i>(1 project)</i>	2017	Texas State Technical College – Marshall <i>(1 project)</i>	2016
Alamo Community College District <i>(4 projects)</i>	2017	New Caney Independent School District <i>(1 project)</i>	2016
Lake Worth Independent School District <i>(4 projects)</i>	2017	Deer Park Independent School District <i>(2 projects)</i>	2016

Del Mar College District (1 project)	2017	Education Service Center Region XVII (1 project)	2016
Alief Independent School District (10 projects)	2017	Katy Independent School District (47 projects)	2016
Columbia-Brazoria ISD (6 projects)	2017	Dallas County Community College (4 projects)	2015-2016
Harlingen TX (City Of) (1 project)	2017	Pulaski Technical College (PTC) (3 projects)	2014-2016
Mesquite ISD (1 project)	2017	University of Texas – Tyler (1 project)	2014-2016
Texas State University (12 projects)	2017-2018	Stephen F. Austin State University (4 projects)	2013-2016
Texas Southmost College (1 project)	2017		

Conflicts of Interest

Johnson Controls is not aware of any relationships that might be considered a conflict of interest when doing business with Members in the TIPS program.

Deviations of Terms

In the Attributes section of the TIPS bid system, we have noted the following deviations.

#75 Acts or Omissions

JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.

#83 Agreement Deviation/Compliance

In the **PRICING** section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls Fire and Security domain only.

In the **INDEMNITY** section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to

the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

The Interlocal Purchasing System (TIPS Cooperative) Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Rick Powell General Counsel/Procurement Compliance Officer	Address	Region VIII Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686	Address
Email	rick.powell@tips-usa.com	Contact	Kristie Collins, Contracts Compliance Specialist	Contact
Phone	(903) 575-2689	Department		Department Building
Fax		Floor/Room		Floor/Room Telephone
Bid Number	180203	Telephone	+1 (866) 839-8477	Fax
Title	Renewable Energy and Solar Solutions and Services (2 PART)	Email	bids@tips-usa.com	Email
Bid Type	RFP			
Issue Date	2/1/2018 08:02 AM (CT)			
Close Date	3/16/2018 03:00:00 PM (CT)			

Supplier Information

Company Johnson Controls, Inc.
 Address 10600 Colonel Glenn Road
 Suite 200
 Little Rock, AR 72204

 Contact
 Department
 Building
 Floor/Room
 Telephone (866) 630-6791
 Fax
 Email
 Submitted 3/16/2018 09:11:25 AM (CT)
 Total \$0.00

By submitting your response, you certify that you are authorized to represent and bind your company.

Signature Andrew Pergande

Email Andrew.Pergande@jci.com

Supplier Notes

Bid Notes

This is a two part solicitation for 180203 Renewable Energy and Solar Solutions and Services. Part 1 is for equipment and services including installations that are not considered a public work and Part 2 is for installation services that are public work construction related projects, such as, but not limited to, electrical or plumbing requiring engineering.

Bid Activities

Bid Messages

Bid Attributes

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the "Response Attachments" D/M/WBE CERTIFICATES section.	No
2	Yes - No	Historically Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB as defined by the State of Texas at https://comptroller.texas.gov/purchasing/vendor/hub/ or in a HUBZone as defined by the US Small Business Administration at https://www.sba.gov/offices/headquarters/ohp Proof of one or both may be submitted. Vendor must upload proof of certification to the "Response Attachments" HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	Yes
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	We provide services in all 50 states.
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	Johnson Controls delivers products, services and solutions that increase energy efficiency and lower 'operating costs in buildings for more than one million customers. Operating from 500 branch offices in more than 150 countries, we are a leading provider of renewable technologies, equipment, controls, and services for heating, ventilating, air-conditioning, refrigeration and security systems. We have been involved in more than 500 renewable energy projects including solar, wind and geothermal technologies. Our solutions have reduced carbon dioxide emissions by 16 million metric tons and generated savings of \$7.5 billion since 2000. For additional information, please visit www.johnsoncontrols.com .
6	Primary Contact Name	Primary Contact Name	Andrew Pergande
7	Primary Contact Title	Primary Contact Title	Group Purchasing Organization Manager
8	Primary Contact Email	Primary Contact Email	Andrew.Pergande@jci.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937

10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-708-6722
12	Secondary Contact Name	Secondary Contact Name	Thomas Staves
13	Secondary Contact Title	Secondary Contact Title	Sales Manager
14	Secondary Contact Email	Secondary Contact Email	thomas.staves@jci.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-443-676-8813
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Andrew Pergande
19	Admin Fee Contact Email	Admin Fee Contact Email	Andrew.Pergande@jci.com
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Andrew Pergande
22	Purchase Order Contact Email	Purchase Order Contact Email	Andrew.Pergande@jci.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
24	Company Website	Company Website (Format - www.company.com)	www.johnsoncontrols.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	39-0380010
26	Primary Address	Primary Address	5757 North Green Bay Avenue P. O. Box 591
27	Primary Address City	Primary Address City	Milwaukee
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	Wisconsin
29	Primary Address Zip	Primary Address Zip	53202
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	renewable energy, solar, solar photovoltaic, solar panel, microgrid, wind turbine, energy storage, geothermal heat pump, solar daylighting, biomass plant, solar thermal pool heating, solar thermal domestic water heating, solar transpired walls, battery power stationary storage, solar PV, thermal energy storage systems, ice storage, sewer heat recovery, waste heat recovery, biogas, wind power, solar power

31	Yes - No	<p>Most of our members receive Federal Government grants and they make up a significant portion of their budgets. The members need to know if your company is willing to sell to them when they spend federal budget funds on their purchase. There are attributes that follow that are provisions from the federal regulations in 2 CFR part 200. Your answers will determine if your award will be designated as Federal or Education Department General Administrative Regulations (EDGAR)compliant. Is it your intent to be able to sell to our members regardless of the fund source, whether it be local, state or federal?</p>	Yes
32	Yes - No	<p>Certification of Residency (Required by the State of Texas) The vendor's ultimate parent company or majority owner:</p> <p>(A) has its principal place of business in Texas;</p> <p>OR</p> <p>(B) employs at least 500 persons in Texas?</p>	Yes
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Milwaukee
34	Company Residence (State)	Vendor's principal place of business is in the state of?	Wisconsin
35	Felony Conviction Notice:	<p>(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37) Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034.</p> <p>Following is an example of a felony conviction notice: State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district or ESC 8/TIPS must give advance notice to the district or ESC 8/TIPS if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."</p>	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	Yes
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony?	No
38	If your firm is owned or operated by the following individual(s) who has/have been convicted of a felony:	Please provide details of the conviction. This is not necessarily a disqualifying factor and the details of the conviction determines the eligibility. Providing false or misleading information about the conviction is illegal.	N/A
39	Pricing Information:	Pricing information section. (Questions 39 - 43)	(No Response Required)

40	Discount Offered	What is the MINIMUM percentage discount off of any item or service you offer to TIPS Members that is in your regular catalog (as defined in the RFP document), website, store or shelf pricing? This is a ceiling on your pricing and not a floor because, in order to be more competitive in the individual circumstance, you may offer a larger discount depending on the items or services purchased and the quantity at time of sale. Must answer with a number between 0% and 100%.	5%
41	TIPS administration fee	By submitting a proposal, I agree that all pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing and shall be remitted to TIPS by the Vendor as agreed in the Vendor agreement. I agree that the fee shall not and will not be added by the vendor as a separate line item on a TIPS member invoice, quote, proposal or any other written communications with the TIPS member.	(No Response Required)
42	Yes - No	Vendor agrees to remit to TIPS the required administration fee? TIPS/ESC Region 8 is required by Texas Government Code § 791 to be compensated for its work and thus, failure to agree shall render your response void and it will not be considered.	Yes
43	Yes - No	Do you offer additional discounts to TIPS members for large order quantities or large scope of work?	No
44	Start Time	Average start time after receipt of customer order is ____ working days?	15
45	Years Experience	Company years experience in this category?	117
46	Resellers:	Does the vendor have resellers that it will name under this contract? Resellers are defined as other companies that sell your products under an agreement with you, the awarded vendor of TIPS. EXAMPLE: Walmart is a reseller of Samsung Electronics. If Samsung were a TIPS awarded vendor, then Samsung would list Walmart as a reseller. (If applicable, vendor should download the Reseller/Dealers spreadsheet from the Attachments section, fill out the form and submit the document in the "Response Attachments" RESELLERS section.	No
47	Prices are guaranteed for?	Vendor agrees to honor the pricing discount off regular catalog (as defined in the RFP document), website, store or shelf pricing for the term of the award?	YES
48	Right of Refusal	Does the proposing vendor wish to reserve the right not to perform under the awarded agreement with a TIPS member at vendor's discretion?	Yes

49 NON-COLLUSIVE BIDDING CERTIFICATE

By submission of this bid or proposal, the Bidder certifies that: (No Response Required)

- 1) This bid or proposal has been independently arrived at without collusion with any other Bidder or with any Competitor;
- 2) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other Bidder, Competitor or potential competitor;
- 3) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal;
- 4) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the Bidder as well as to the person signing in its behalf. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.

50 Texas HB 89- Texas Government code §2270 compliance

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq. YES

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I verify by my "YES" response to this attribute that, as a company submitting a proposal to this solicitation, that I am authorized to respond for the company and affirm that the company (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that TIPS will be notified in writing by email to TIPS@TIPS-USA.com within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall result in a "no award" determination by TIPS and if a contract exists with TIPS, be grounds for immediate contract termination without penalty to TIPS and Education Service Center Region 8.

FAILURE TO RESPOND "YES" WILL RESULT IN NO CONSIDERATION OF YOUR PROPOSAL.

I swear and affirm that the above is true and correct by a "YES" response.

- 51 CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ If you have a conflict of interest as described in this form or the Local Government Code Chapter 176, cited therein- you are required to complete and file with TIPS, Richard Powell, 4845 US Highway 271 North, Pittsburg, Texas 75686 No
- You may find the Blank CIQ form on our website at:
- Copy and Paste the following link into a new browser or tab:
<https://www.tips-usa.com/assets/documents/docs/CIQ.pdf>
- Do you have any conflicts under this statutory requirement?
- 52 Filing of Form CIQ If yes (above), have you filed a form CIQ as directed here?
- 53 Regulatory Standing I certify to TIPS for the proposal attached that my company is in good standing with all governmental agencies Federal or state that regulate any part of our business operations. If not, please explain in the next attribute question. Yes
- 54 Regulatory Standing Regulatory Standing explanation of no answer on previous question. N/A
- 55 Antitrust Certification Statements (Tex. Government Code § 2155.005) By submission of this bid or proposal, the Bidder certifies that:

I affirm under penalty of perjury of the laws of the State of Texas that:
(1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
(2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
(3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law;
(4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company. (No Response Required)

Instructions for Certification:

1. By agreeing to the Attribute question #56, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this

transaction originated may pursue available remedies, including suspension and / or debarment.

57 Suspension or Debarment Certification

Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

By submitting this offer and certifying this section, this bidder:
Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract as described above.

58 Non-Discrimination Statement and Certification

In accordance with Federal civil rights law, all U.S. Departments, including the U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. (Title VI of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title 7 CFR Parts 15, 15a, and 15b; the Americans with Disabilities Act; and FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities) All U.S. Departments, including the USDA are equal opportunity provider, employer, and lender.

Not a negotiable term. Failure to agree will render your

proposal non-responsive and it will not be considered. I certify that in the performance of a contract with TIPS or its members, that our company will conform to the foregoing anti-discrimination statement and comply with the cited and all other applicable laws and regulations.

59 2 CFR PART 200 Contract Provisions Explanation

Required Federal contract provisions of Federal Regulations for Contracts for contracts with ESC Region 8 and TIPS Members:

(No Response Required)

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The ESC Region 8 and TIPS Members are the subgrantee or Subrecipient by definition. Most of the provisions are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200. Others are included within 2 CFR part 200 et al.

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

60 2 CFR PART 200 Contracts

Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.
Does vendor agree?

Yes

61 2 CFR PART 200 Termination

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

Yes

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.
Does vendor agree?

62	2 CFR PART 200 Clean Air Act	<p>Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p> <p>Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.</p> <p>Does vendor agree?</p>	Yes
63	2 CFR PART 200 Byrd Anti-Lobbying Amendment	<p>Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies to the terms included or referenced herein.</p> <p>Does vendor agree?</p>	Yes
64	2 CFR PART 200 Federal Rule	<p>Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$100,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).</p> <p>Does vendor certify that it is in compliance with the Clean Air Act?</p>	Yes

65	2 CFR PART 200 Procurement of Recovered Materials	<p>A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with</p> <p>maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.</p> <p>Does vendor certify that it is in compliance with the Solid Waste Disposal Act as described above?</p>	Yes
66	Indemnification	<p>The ESC Region 8 and TIPS is a Texas Political Subdivision and a local governmental entity; therefore, is prohibited from</p> <p>indemnifying third parties pursuant to the Texas Constitution (Article 3, Section 52) except as specifically provided by law or as</p> <p>ordered by a court of competent jurisdiction. A provision in a contract to indemnify or hold a party harmless is a promise to pay for</p> <p>any expenses the indemnified party incurs, if a specified event occurs, such as breaching the terms of the contract or negligently</p> <p>performing duties under the contract. Article III, Section 49 of the Texas Constitution states that "no debt shall be created by or on</p> <p>behalf of the State ... " The Attorney General has counseled that a contractually imposed obligation of indemnity creates a "debt" in</p> <p>the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Contract clauses which require the System or institutions to</p> <p>indemnify must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas." Liquidated</p> <p>damages, attorney's fees, waiver of vendor's liability, and waiver of statutes of limitations clauses should also be deleted or qualified</p> <p>with "to the extent permitted by the Constitution and laws of State of Texas."</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree</p> <p>to these terms?</p>	Yes

67 Remedies	<p>The parties shall be entitled to exercise any right or remedy available to it either at law or in equity, subject to the choice of law, venue and service of process clauses limitations agreed herein. Nothing in this agreement shall commit the TIPS to an arbitration resolution of any disagreement under any circumstances. Any Claim arising out of or related to the Contract, except for those specifically waived under the terms of the Contract, may, after denial of the Board of Directors, be subject to mediation at the request of either party. Any issues not resolved hereunder must be referred to non-binding mediation to be conducted by a mutually agreed upon mediator as a prerequisite to the filing of any lawsuit over such issue(s). The parties shall share the mediator's fee and any associated filing fee equally. Mediation shall be held in Camp or Titus County, Texas. Agreements reached in mediation shall be reduced to writing, and will be subject to the approval by the District's Board of Directors, signed by the Parties if approved by the Board of Directors, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Texas.</p> <p>Do you agree to these terms?</p>	Yes, I Agree
-------------	---	--------------

68 Remedies Explanation of No Answer

69 Choice of Law	<p>This agreement and any addenda or other additions and all contracts or awards resulting from this procurement process, however described, shall be governed by, construed and enforced in accordance with the laws of the State of Texas, regardless of any conflict of laws principles.</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?</p>	Yes
------------------	---	-----

70 Jurisdiction and Service of Process	<p>Any Proceeding arising out of or relating to this procurement process or any contract issued by TIPS resulting from or any contemplated transaction shall be brought in a court of competent jurisdiction in Camp County, Texas and each of the parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the Proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction in any other court. The parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the parties irrevocably to waive any objections to venue or to convenience of forum. Process in any Proceeding referred to in the first sentence of this Section may be served on any party anywhere in the world. Venue clauses in contracts with TIPS members may be determined by the parties.</p>	Yes
--	--	-----

Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?

71	Alternative Dispute Resolution	Prior to filing of litigation, the parties may select non-binding mediation as a method of conflict resolution for issues arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction. The parties agree that if nonbinding mediation is chosen as a resolution process, the parties must agree to the chosen mediator(s) and that all mediation venue shall be at a location in Camp or Titus, County, Texas agreed by the parties. The parties agree to share equally the cost of the mediation process and venue cost. Do you agree to these terms?	Yes, I Agree
72	Alternative Dispute Resolution Explanation of No Answer		
73	Infringement(s)	The successful vendor will be expected to indemnify and hold harmless the TIPS and its employees, officers, agents, representatives, contractors, assignees and designees from any and all third party claims and judgments involving infringement of patent, copyright, trade secrets, trade or service marks, and any other intellectual or intangible property rights attributed to or claims based on the Vendor's proposal or Vendor's performance of contracts awarded and approved. Do you agree to these terms?	Yes, I Agree
74	Infringement(s) Explanation of No Answer		
75	Acts or Omissions	The successful vendor will be expected to indemnify and hold harmless the TIPS, its officers, employees, agents, representatives, contractors, assignees and designees from and against any and all liability, actions, claims, demands or suits, and all related costs, attorney's fees and expenses arising out of, or resulting from any acts or omissions of the vendor or its agents, employees, subcontractors, or suppliers in the execution or performance of any agreements ultimately made by TIPS and the vendor. Do you agree to these terms?	No
76	Acts or Omissions Explanation of No Answer		JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.
77	Contract Governance	Any contract made or entered into by the TIPS is subject to and is to be governed by Section 271.151 et seq, Tex Loc Gov't Code. Otherwise, TIPS does not waive its governmental immunities from suit or liability except to the extent expressly waived by other applicable laws in clear and unambiguous language.	Yes

78 Payment Terms and Funding Out Clause

Payment Terms:
TIPS or TIPS members shall not be liable for interest or late payment fees on past due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Yes

Funding Out Clause:
Vendor agrees to abide by the laws and regulations, including Texas Local Government Code § 271.903, or any statutory or regulatory limitations of the jurisdiction of any TIPS Member which governs contracts entered into by the Vendor and TIPS or a TIPS Member that requires all contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.
See statute(s) for specifics or consult your legal counsel. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.
Do you agree to these terms?

79 Insurance and Fingerprint Requirements Information

Insurance
If applicable and your staff will be on TIPS member premises for delivery, training or installation etc. and/or with an automobile, you must carry automobile insurance as required by law. You may be asked to provide proof of insurance.

Fingerprint
It is possible that a vendor may be subject to Chapter 22 of the Texas Education Code. The Texas Education Code, Chapter 22, Section 22.0834. Statutory language may be found at: <http://www.statutes.legis.state.tx.us/>
If the vendor has staff that meet both of these criterion:
(1) will have continuing duties related to the contracted services; and
(2) has or will have direct contact with students
Then you have "covered" employees for purposes of completing the attached form.
TIPS recommends all vendors consult their legal counsel for guidance in compliance with this law. If you have questions on how to comply, see below. If you have questions on compliance with this code section, contact the Texas Department of Public Safety Non-Criminal Justice Unit, Access and Dissemination Bureau, FAST-FACT at NCJU@txdps.state.tx.us and you should send an email identifying you as a contractor to a Texas Independent School District or ESC Region 8 and TIPS. Texas DPS phone number is (512) 424-2474.
See form in the next attribute to complete entitled: Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

(No Response Required)

80 Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

Introduction: Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district.

Definitions: Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students. Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school:

(a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

I certify that:

NONE (Section A) of the employees of Contractor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

OR

SOME (Section B) or all of the employees of Contractor and any subcontractor are covered employees. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.

(3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees.

(4) If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

81 Solicitation Deviation/Compliance

Does the vendor agree with the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation? Yes

82 Solicitation Exceptions/Deviations Explanation

If the bidder intends to deviate from the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation, all such deviations must be listed on this attribute, with complete and detailed conditions and information included or attached.

TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any bid based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Standard Terms and Conditions, Item Specifications, and all other information contained in this Solicitation.

83 Agreement Deviation/Compliance

Does the vendor agree with the language in the Vendor Agreement? No

If the proposing Vendor desires to deviate from the Vendor Agreement language, all such deviations must be listed on this attribute, with complete and detailed conditions and information included. TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any proposal based upon any deviations indicated below. In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Vendor Agreement.

In the PRICING section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls HVAC domain only.

In the INDEMNITY section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

85 Texas Business and Commerce Code § 272
Requirements as of 9-1-2017

SB 807 prohibits construction contracts to have provisions requiring the contract to be subject to the laws of another state, to be required to litigate the contract in another state, or to require arbitration in another state. A contract with such provisions is voidable. Under this new statute, a "construction contract" includes contracts, subcontracts, or agreements with (among others) architects, engineers, contractors, construction managers, equipment lessors, or materials suppliers. "Construction contracts" are for the design, construction, alteration, renovation, remodeling, or repair of any building or improvement to real property, or for furnishing materials or equipment for the project. The term also includes moving, demolition, or excavation. BY RESPONDING TO THIS SOLICITATION, AND WHEN APPLICABLE, THE PROPOSER AGREES TO COMPLY WITH THE TEXAS BUSINESS AND COMMERCE CODE § 272 WHEN EXECUTING CONTRACTS WITH TIPS MEMBERS THAT ARE TEXAS GOVERNMENT ENTITIES. (No Response Required)

Line Items

Response Total: \$0.00

REFERENCES

Please provide three (3) references, preferably from school districts or other governmental entities who have used your services within the last three years. Additional references may be required. DO NOT INCLUDE TIPS EMPLOYEES AS A REFERENCE.

You may provide more than three (3) references.

Entity Name	Contact Person	Email	Phone
San Joaquin County Office of Education	Mr. Ronald Estes, Division Director, Operations and Support Services	restes@sjcoe.net	209-468-9061
Mount Wachusett Community College	Bill Swift, Director of Maintenance and Mechanical Systems	W_Swift@mwcc.mass.edu	978-630-9267
Case Western Reserve University	Chris Wilson, Director of Facilities	ckw39@case.edu	216-368-5093

Certification Regarding Lobbying

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds.

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Johnson Controls, Inc.

5757 North Green Bay Ave., P.O. Box 591, Milwaukee, WI 53201

Name/Address of Organization

Brandon Jackson, Vice President of Branch Sales

Name/Title of Submitting Official

Signature

3/9/2018

Date

FELONY CONVICTION NOTICE

FOR RESPONSE TO TIPS SOLICITATION

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice:

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

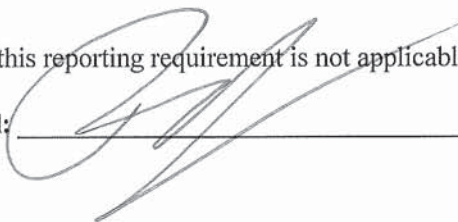
THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION

Complete only one of the three below: A or B or C.

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Official: Brandon Jackson
Print Authorized Company Official's Name

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

Signature of Authorized Company Official:  _____

OR

B. My firm is not owned nor operated by anyone who has been convicted of a felony:

Signature of Authorized Company Official: _____

OR

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): _____

Details of Conviction(s): _____

You may attach another sheet

Signature of Authorized Company Official: _____

CERTIFICATION BY CORPORATE OFFERER

IF OFFERER IS A CORPORATION,
THE FOLLOWING CERTIFICATE SHOULD BE EXECUTED AND INCLUDED AS PART OF
PROPOSAL FORM/PROPOSAL FORM.

OFFERER: Johnson Controls, Inc.
(Name of Corporation)

I, Michael R. Peterson certify that I am the ^{Assistant} Secretary of the Corporation
(Name of Corporate Secretary)


named as OFFERER herein above; that

Brandon Jackson
(Name of person who completed proposal document)

who signed the foregoing proposal on behalf of the corporation offerer is the authorized person that is acting as

Vice President of Branch Sales
(Title/Position of person signing proposal/offer document within the corporation)

of the said Corporation; that said proposal/offer was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.



CORPORATE SEAL if available



SIGNATURE

March 13, 2018
DATE

Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

The Education Service Center Region 8 and TIPS Members anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

1. Will you be subcontracting any of your work under this award if you are successful? (Circle one)

YES or NO

2. If yes, do you agree to comply with the following federal requirements? (Circle one)

YES or NO

2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

Texas Government Code 2270 Verification Form

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq.

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I, Brandon Jackson as an authorized representative of

Johnson Controls, Inc., a contractor/vendor

Insert Name of Company

engaged by

ESC Region 8/The Interlocal Purchasing System (TIPS)
4845 Highway 271 North
Pittsburg, TX, 75686

verify by this writing that the above-named company affirms that it (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that the above-named Texas governmental entity will be notified in writing within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall be grounds for immediate contract termination without penalty to the above-named Texas governmental entity.

AND

our company is not listed on and we do not do business with companies that are on the the Texas Comptroller of Public Accounts list of Designated Foreign Terrorists Organizations per Texas Gov't Code 2270.0153 found at <https://comptroller.texas.gov/purchasing/docs/foreign-terrorist.pdf>

I swear and affirm that the above is true and correct.


Signature of Named Authorized Company Representative

3/9/2018

Date

**Required Federal contract provisions of Federal Regulations for Construction Contracts
for contracts with TIPS OR TIPS MEMBERS**

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The TIPS OR TIPS MEMBERS is the subgrantee or Subrecipient by definition. The Rules are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (D) above, when federal funds are expended by TIPS OR TIPS MEMBERS, during the term of an award for all contracts and subgrants for construction or repair, when Federal Funds are expended, by the TIPS OR TIPS MEMBERS resulting for this procurement process the vendor will be in compliance with all provisions listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be

required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule above, when federal funds are expended by TIPS or TIPS Members, the proposer certifies that during the term of an award by the TIPS OR TIPS MEMBERS resulting from this procurement process for construction contracts awarded by grantees and subgrantees the proposer agrees to be in compliance with all requirements listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

FAILURE TO PROPERLY COMPLETE THIS FORM AND SUBMIT WITH YOUR RESPONSE MAY RESULT IN A WAIVER OF YOUR RIGHTS UNDER THE LAW TO MAINTAIN CONFIDENTIALITY TREATMENT OF SUBMITTED MATERIALS.

CONFIDENTIAL INFORMATION SUBMITTED IN RESPONSE TO COMPETITIVE PROCUREMENT REQUESTS OF EDUCATION SERVICE CENTER REGION 8 AND TIPS IS GOVERNED BY TEXAS GOVERNMENT CODE, CHAPTER 552

If you consider any portion of your proposal to be confidential information and not subject to public disclosure pursuant to Chapter 552 Tex Gov't Code or other law(s), you **must** make a **copy** of all claimed confidential materials within your proposal and put this **COMPLETED** form as a cover sheet to said materials then scan, name "CONFIDENTIAL" and upload with your proposal submission. (You must include the confidential information in the submitted proposal as well, the copy uploaded is to indicate which material in your proposal, if any, you deem confidential in the event the District receives a Public Information Request.) Education Service Center Region 8 and TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law. Pricing of solicited product or service may be deemed as public information under Chapter 552 Tex Gov't Code. The Office of Texas Attorney General shall make the final determination whether the information held by Education Service Center Region 8 and TIPS is confidential and exempt from public disclosure.

If you claim that parts of your proposal are confidential, complete the top section below.

I DO NOT desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS. The attached contains material from our proposal that I classify and deem confidential under Texas Gov't Code Sec. 552 or other law(s) and I invoke my statutory rights to confidential treatment of the enclosed materials.

Name of company claiming confidential status of material

Printed Name and Title of authorized company officer claiming confidential status of material

City State ZIP Phone Address

ATTACHED ARE COPIES OF _____ PAGES OF CONFIDENTIAL MATERIAL FROM OUR PROPOSAL

Signature _____ Date _____

If you do not claim any of your proposal to be confidential, complete the section below only.

Express Waiver: I desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS.
Johnson Controls, Inc.

Name of company expressly waiving confidential status of material

Brandon Jackson, Vice President of Branch Sales

Printed Name and Title of authorized company officer expressly waiving confidential status of material

5757 North Green Bay Ave., PO Box 591, Milwaukee, WI 53201 1-414-524-1200

City State ZIP Phone Address

Signature _____ Date 3/9/2018

Typical Warranty Terms

Warranty terms vary. The following sample text shows our standard warranty terms. Extended or customized warranty terms are negotiable.

Parts Warranty: JCI warrants that original equipment, parts or components manufactured or labeled by JCI shall be free from defects in material and workmanship under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment. Equipment, parts or components not manufactured or labeled by JCI shall carry a warranty from defects in material and workmanship under normal usage and proper installation and maintenance for a period of ninety (90) days from the date of shipment. Notwithstanding the foregoing, in the event JCI is reasonably able to identify a warranty for a period longer than the ninety (90) days applicable to equipment, parts or components not manufactured or labeled by JCI, it will assign all assignable rights under such warranty to Customer and reasonably cooperate in the enforcement of any warranty claim. Recertified or replacement parts installed on equipment and still under the original equipment manufacturer's warranty are covered for ninety (90) days or the remainder of the original equipment manufacturer warranty period, whichever is longer. For large tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: screw compressors, motors, control panels and components, VFD's and components and Liquid Cooled Solid State Starters and components. For small tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: scroll compressors, condenser coils, control panels and components, screw compressors (DXS and Mustang), and fan motors. In the event of a valid warranty claim, the Customer's remedy shall, at JCI's sole discretion and subject to the exclusions herein, be limited to repair or replacement of the subject equipment, part or component conditioned upon the return to JCI of any defective equipment, part or component. This Parts Warranty does not cover any shipping, handling or transportation charges or any associated labor costs.

Labor Warranty: JCI warrants its workmanship or that of its agents in relation to installation of materials for a period of ninety (90) days from date of installation or with respect to service work for a period of ninety (90) days from the date of service. Customer acknowledges that re-performance shall be its exclusive and only remedy with regards to any services provided by JCI. Customer shall bear all labor costs associated with the repair or replacement of failed material that is outside the scope of this express labor warranty. All warranty labor shall be executed during JCI normal business hours.

These warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.

THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. UNDER NO CIRCUMSTANCES SHALL JCI BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO ANY DEFECT IN MATERIAL OR WORKMANSHIP OF EQUIPMENT OR THE PERFORMANCE OF SERVICES.

The following table provides an FAQ to our warranty terms.

Question	Information
Do your warranties cover all products, parts, and labor?	There is a parts warranty and a typically a manufacturer warranty that is passed on to the customer. Additionally there is a labor warranty provided by Johnson Controls
Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	The warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.
Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	Yes.
Are there any geographic regions of the United States for which you cannot provide a certified technician to perform warranty repairs?	We can provide warranty repairs in all geographic regions.
Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	We pass all manufacturer warranties on to the customer. If requested and negotiated into the contract, we can cover a manufacturer warranty or enable the customer to buy an extended warranty.
What are your proposed exchange and return programs and policies?	If we are in the installation phase and the requested change is similar in price and operation to the planned equipment, we will make the change as requested. If the change is less expensive, we will refund the difference to the customer. If the change is more expensive, we implement the change with a formal Change Order.



HUB Subcontracting Plan (HSP) QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

➤ **If you will be awarding all of the subcontracting work you have to offer under the contract to only Texas certified HUB vendors, complete:**

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors

Section 2 c. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less meets or exceeds the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:**

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less does not meet or exceed the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:**

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicated the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - No

Section 4 - Affirmation

GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources, complete:**

Section 1 - Respondent and Requisition Information

Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources

Section 3 - Self Performing Justification

Section 4 - Affirmation

****Continuous Contract:*** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.



HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.13 are:

- **11.2 percent for heavy construction other than building contracts,**
- **21.1 percent for all building construction, including general contractors and operative builders' contracts,**
- **32.9 percent for all special trade construction contracts,**
- **23.7 percent for professional services contracts,**
- **26.0 percent for all other services contracts, and**
- **21.1 percent for commodities contracts.**

- - Agency Special Instructions/Additional Requirements - -

In accordance with 34 TAC §20.14(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only contracts that have been in place for five years or less shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.

SECTION-1: RESPONDENT AND REQUISITION INFORM

- a. Respondent (Company) Name: _____ State of Texas VID #: _____
 Point of Contact: _____ Phone #: _____
 E-mail Address: _____ Fax #: _____
- b. Is your company a State of Texas certified HUB? - Yes - No
- c. Requisition #: _____ Bid Open Date: _____
(mm/dd/yyyy)

Enter your company's name here: _____ Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, including goods and services, will be subcontracted. Note: In accordance with 34 TAC §20.11., an "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

- a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:
- **Yes**, I will be subcontracting portions of the contract. (If **Yes**, complete Item b, of this SECTION and continue to Item c of this SECTION.)
 - **No**, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources. (If **No**, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>five (5) years or less</u> .	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract*</u> in place for <u>more than five (5) years</u> .	Percentage of the contract expected to be subcontracted to non-HUBs.
1		%	%	%
2		%	%	%
3		%	%	%
4		%	%	%
5		%	%	%
6		%	%	%
7		%	%	%
8		%	%	%
9		%	%	%
10		%	%	%
11		%	%	%
12		%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at <http://window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/>).

- c. Check the appropriate box (Yes or No) that indicates whether you will be using only Texas certified HUBs to perform all of the subcontracting opportunities you listed in SECTION 2, Item b.
- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to Item d, of this SECTION.)
- d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract with Texas certified HUBs with which you have a continuous contract* in place with for five (5) years or less meets or exceeds the HUB goal the contracting agency identified on page 1 in the "Agency Special Instructions/Additional Requirements".
- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed.)

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.

Enter your company's name here: _____

Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT (CONTINUATION SHEET)

a. This page can be used as a continuation sheet to the HSP Form's page 2, Section 2, Item b. Continue listing the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for <u>five (5) years or less</u> .	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for <u>more than five (5) years</u> .	Percentage of the contract expected to be subcontracted to non-HUBs.
16		%	%	%
17		%	%	%
18		%	%	%
19		%	%	%
20		%	%	%
21		%	%	%
22		%	%	%
23		%	%	%
24		%	%	%
25		%	%	%
26		%	%	%
27		%	%	%
28		%	%	%
29		%	%	%
30		%	%	%
31		%	%	%
32		%	%	%
33		%	%	%
34		%	%	%
35		%	%	%
36		%	%	%
37		%	%	%
38		%	%	%
39		%	%	%
40		%	%	%
41		%	%	%
42		%	%	%
43		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

**Continuous Contract: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: Johnson Controls, Inc

Requisition #: 180203

SECTION 3: SELF PERFORMING JUSTIFICATION (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4)

Check the appropriate box (Yes or No) that indicates whether your response/proposal contains an explanation demonstrating how your company will fulfill the entire contract with its own resources.

- **Yes** (If **Yes**, in the space provided below **list the specific page(s)/section(s)** of your proposal which explains how your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)
- **No** (If **No**, in the space provided below **explain how** your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)

SECTION 4: AFFIRMATION

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.

	Brandon Jackson	Vice President of Branch Sales	3/4/2018
Signature	Printed Name	Title	Date <small>(mm/dd/yyyy)</small>

Reminder:

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.

HSP Good Faith Effort - Method A (Attachment A)

Enter your company's name here: _____ Requisition #: _____

IMPORTANT: If you responded "Yes" to SECTION 2, Items c or d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-a.pdf>.

SECTION A-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION A-2: SUBCONTRACTOR SELECTION

List the subcontractor(s) you selected to perform the subcontracting opportunity you listed above in SECTION A-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB

Company Name	Texas certified HUB	VID Number (Required if Texas certified HUB)	Approximate Dollar Amount	Expected Percentage of Contract
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%

REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

HSP Good Faith Effort - Method B (Attachment B)

Enter your company's name here: _____	Requisition #: _____
---------------------------------------	----------------------

IMPORTANT: If you responded "Yes" to SECTION 2, Items c or d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION B-2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If *Yes*, to continue to SECTION B-4.)
- No / Not Applicable (If *No* or *Not Applicable*, continue to SECTION B-3 and SECTION B-4.)

SECTION B-3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you MUST comply with items a, b, c and d, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to your submitting your bid response to the contracting agency. When searching for Texas certified HUBs, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) and Historically Underutilized Business (HUB) Search directory located at <http://mycpa.state.tx.us/tpasscmblsearch/index.jsp>. HUB Status code "A" signifies that the company is a Texas certified HUB.
- b. List the three (3) Texas certified HUBs you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Vendor ID (VID) number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	VID Number	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
			- Yes - No
			- Yes - No
			- Yes - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.

- d. List two (2) trade organizations or development centers you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		- Yes - No
		- Yes - No

HSP Good Faith Effort - Method B (Attachment B) Cont.

Enter your company's name here: _____	Requisition #: _____
---------------------------------------	----------------------

SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: Description:

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in SECTION B-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB.

Company Name	Texas certified HUB	VID Number <small>(Required if Texas certified HUB)</small>	Approximate Dollar Amount	Expected Percentage of Contract
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in SECTION B-1 is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

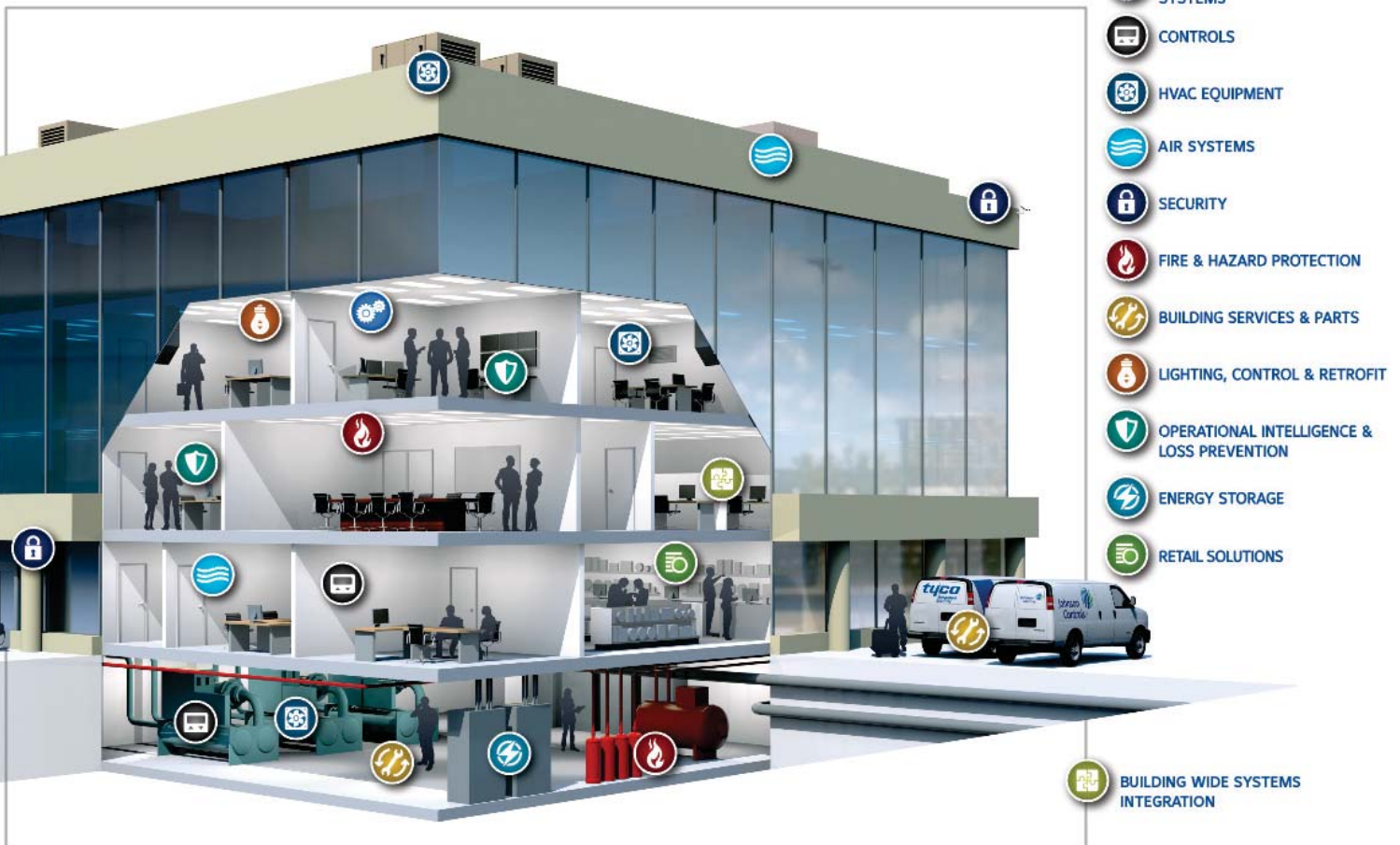
REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

SMARTER, SAFER, MORE SUSTAINABLE
BUILDINGS AND CITIES.



TAKE ADVANTAGE OF A BROADER RANGE OF CAPABILITIES.

Johnson Controls now provides a wider spectrum of innovative products, expert installation and services, and systems integration to help improve operational and energy outcomes for customers worldwide.



HVAC EQUIPMENT

Draw on the most comprehensive HVAC portfolio for commercial and residential buildings of all types, ages and sizes to enhance sustainability, energy use and the indoor environment.

- Chillers—air-cooled; water-cooled; connected
- Condensers and condensing units
- Dedicated outdoor air systems (DOAS)
- Duct-free mini-split systems
- Indoor packaged equipment
- Rooftop units
- Variable refrigerant flow (VRF) systems

SECURITY

Help protect and enhance working and living environments today and tomorrow with integrated, customer-specific solutions from the world's leading security company.

- 24/7 remote monitoring
- Access control
- Advanced video surveillance
- Intrusion detection
- Managed services

CONTROLS

Equip facilities with intelligent HVAC controls to keep occupants comfortable, run equipment efficiently and optimize operating budgets.

- Actuators
- Control panels
- Control sensors
- Current sensors and transducers
- Thermostats
- Valves
- Variable speed drives

FIRE, LIFE-SAFETY & HAZARD PROTECTION

Help keep people and assets safe with comprehensive solutions, design, installation, service and monitoring from a world leading fire and life-safety systems provider.

- Fire alarm systems
- Fire sprinkler systems
- Fire suppression systems
- Mass notification systems
- Special hazard solutions

OPTIMIZATION & RETROFIT SERVICES

Make the most of existing building and financial assets through cost-effective upgrades, central plant strategies, and financing solutions.

- Central chiller plant optimization
- Clean energy assessments
- Energy performance contracts
- Energy retrofits
- Equipment financing
- Healthcare environment optimization
- Public/private partnerships
- Technology refresh services
- Turnkey upgrades and retrofits

LIGHTING CONTROLS & RETROFIT

Save energy, minimize costs and meet organizational goals with a range of services, from business remodels, to new construction lighting design, to municipal street lights.

- Lighting retrofits
- Street and roadway lighting
- Turn-key lighting upgrades

ENERGY STORAGE

Rely on our innovative distributed energy storage products to better manage energy use, cut costs and ensure electrical back-up for a building, campus or enterprise.

- In-building distributed energy storage system
- Modular distributed energy storage system

RETAIL SOLUTIONS

Gain real-time insights into retail facilities, inventories, employees & customers to achieve maximum business performance in a digitally driven shopping world.

- Loss Prevention
- Inventory Intelligence
- Traffic Insights

OPERATIONAL INTELLIGENCE & LOSS PREVENTION

Helps minimize costs, maximize operational performance and enhance return on investment in security programs with business intelligence solutions.

- Information management solutions
- Real-time location systems (RTLS) for asset management
- Video and traffic analytics

BUILDING SERVICES & PARTS

Tap into resources of the industry's largest service network for HVAC, security and life-safety system installation and product support. More than 12,000 technicians working out of nearly 500 local offices can provide 24x7x365 proactive monitoring, remote and on-site service and repair, and replacement parts.

- Aftermarket parts
- Building remote monitoring
- Building system and HVAC repair
- Planned and preventive maintenance
- Predictive and diagnostic services
- Security and life-safety system repair

BUILDING AUTOMATION SYSTEMS

Connect commercial HVAC, lighting, security and protection systems on one platform. Vital data and insights improve efficiency, productivity, and occupants' comfort and safety.

- *Metasys*[®] building automation system
- *Metasys* Enterprise Optimization applications

AIR SYSTEMS

Use efficient air flow building-wide to create healthy, comfortable and visually appealing environments that increase work productivity and occupant satisfaction.

- Air handling units
- Air measuring
- Chilled beams
- Dampers
- EcoAdvance™ HVAC load reduction (HLR) module
- Energy recovery ventilators
- Fan and blower
- Fans
- Filtration
- Grilles and diffusers
- Heating coils and cooling coils
- Louvers
- Under floor air distribution
- Unit ventilators
- Variable air volume (VAV) terminals
- Variable speed drives

BUILDING WIDE SYSTEMS INTEGRATION

Construct a smarter building by converging building, business/IT and specialty systems on an intelligent infrastructure. Let us streamline the process to measurably improve initial and lifecycle costs, enhance function, ensure connectivity and create an innovative, optimized, sustainable environment.



MEET THE WORLD LEADER IN
**INTEGRATED BUILDING TECHNOLOGY
AND ENERGY STORAGE.**

Bringing you the best of Johnson Controls.

More comprehensive products, technologies and services.

More innovation and efficiency over the life of a facility.

More holistic, integrated solutions to help make buildings, campuses and cities increasingly safe, smart and sustainable.

DISCOVER COMPLETE, CONNECTED SOLUTIONS TO HELP

BUILDING SYSTEMS, SERVICES & SOLUTIONS

SERVICES & SOLUTIONS



MAINTENANCE & REPAIR SERVICES

With 418 locations and more than 12,000 highly skilled technicians across North America, we help facilities perform at optimum levels, extend asset life, reduce repair costs, and realize energy savings.



BUILDING WIDE SYSTEMS INTEGRATION (BWSI)

We integrate building systems (HVAC, BAS, security), business systems (finance, IT, communications) and specialty systems (nurse call, distance learning, scheduling) onto a unified, intelligent infrastructure.



TECHNOLOGY CONTRACTING™

We are responsible for managing design, integration, installation and service of all technology. Along with innovative partners, we reduce risk, minimize change orders and meet budgets and deadlines.



ENERGY SOLUTIONS

We assess facilities and design a plan to prioritize repairs, upgrade equipment, reduce energy use and improve overall efficiency. Use tomorrow's energy savings to pay for today's upgrades.

OPTIMIZATION



CENTRAL PLANT OPTIMIZATION (CPO 10 / CPO 30)

CPO 10 uses standardized software in *Metasys* to leverage ASHRAE standards, best practices & equipment data to save 5-15% in energy.

CPO 30 uses engineered software to save 15-20% in energy (up to 60% when retrofitting), with real-time analytics to assure performance.



DEMAND RESPONSE

Optimize building energy usage to reduce load during key periods of high prices, high demand charges and electric grid events to maximize electric bill savings and incentive payments from grid and utility based programs.



HEALTHCARE ENVIRONMENT OPTIMIZATION

Optimize the operating room and improve the patient care environment by linking building automation with surgical scheduling.



METASYS ENTERPRISE OPTIMIZATION

Simplify data collection from a variety of building systems to provide a single, integrated view of building and system performance.

CHILLED WATER SYSTEMS

YORK® WATER-COOLED CHILLERS



ELECTRIC

SCROLL (YCWL) • 50–200 tons
HFC-410A refrigerant



VARIABLE-SPEED SCREW (YVWA) • 125–300 tons
HFC-134a refrigerant



MAGNETIC BEARING VARIABLE SPEED CENTRIFUGAL (YMC²) • 165–1,000 tons
Permanent magnet motor, HFC-134a refrigerant



VARIABLE SPEED CENTRIFUGAL (YK) • 250–3,000 tons
HFC-134a refrigerant



CENTRIFUGAL WITH ECONOMIZER (YK-EP) • 2,500–3,500 tons
Variable-speed drive, HFC-134a refrigerant



CENTRIFUGAL (YD) • 1,500–6,000 tons
Smallest footprint per cooling ton, HFC-134a refrigerant, VSD



COMPOUND CENTRIFUGAL (CYK) • 300–2,500 tons
High-head, HFC-134a refrigerant



CUSTOM-DESIGNED CENTRIFUGAL (OM) • 3,000–5,500 tons

Electric-motor, steam-turbine or gas-engine drive, HFC-134a refrigerant



THERMALLY DRIVEN

STEAM-TURBINE DRIVEN CENTRIFUGAL (YST) • 700–2,800 tons
HFC-134a refrigerant



SINGLE-STAGE ABSORPTION (YIA) • 120–1,380 tons
Low-pressure-steam or hot-water driven, water refrigerant



TWO-STAGE ABSORPTION (YPC) • 200–700 tons
Gas, oil, or high-pressure-steam driven, water refrigerant

YORK AIR-COOLED CHILLERS



SCROLL (YCAL & YLAA) • 15–175 tons
HFC-410A refrigerant



HEAT PUMP SCROLL (YLPA) • 1,390–2,040 MBH
HFC-410A refrigerant, chiller duty also available (115–170 tons)



VARIABLE-SPEED SCREW (YVAA/YCIV/YCAV) • 150–500 tons
HFC-134a refrigerant, free cooling options available

DUCTLESS & VRF SYSTEMS

YORK VARIABLE REFRIGERANT FLOW (VRF) SYSTEMS



OUTDOOR UNITS • 6–30 tons

Both heat recovery and heat pump types, air cooled condensing units with inverter scroll compressors; up to 29.5 SCHE and 25.2 IEER



INDOOR UNITS • 0.5–4 tons

Fan coil units in multiple styles (concealed, wall mount, ceiling cassette); ducted and non-ducted; sensor options

YORK MINI-SPLIT SYSTEMS



SINGLE ZONE • 0.75–4 tons

A single condensing unit paired with a single wall mount indoor unit. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star® rated.



MULTI ZONE • 1.5–3.5 tons

Single condensing unit with 2–5 indoor units per system. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star rated.

HOW YOU INCREASE COMFORT, SECURITY AND EFFICIENCY

SOLUTIONS

METASYS® BUILDING AUTOMATION SYSTEMS



NETWORK SERVERS, ENGINES & CONTROLLERS

Intuitive, mobile-optimized user interface. Adapts legacy and proprietary systems to current open system architecture. Support of IT standards and technologies.



WIRELESS COMPONENTS

Field buses and room environment sensing systems designed with the latest wireless technologies.



VALVES, ACTUATORS & DAMPERS

Global product family, broad selection, easy installation.



SENSORS, THERMOSTATS & AIRFLOW MEASURING SYSTEM

Temperature, humidity and CO₂ sensors including analog, network, wireless and pneumatic-to-digital.



VARIABLE-SPEED DRIVES • 1-250 HP

Open, enclosed and bypass drives, optional factory mounting.

ENERGY STORAGE



L1000 IN-BUILDING DISTRIBUTED ENERGY STORAGE SYSTEM

The benefits of advanced battery technology and in-depth building expertise in a small, flexible footprint. Configurable storage capacity in increments of 43 and 65 kWh.



L2000 MODULAR DISTRIBUTED ENERGY STORAGE SYSTEM

Scalable system builds on proven design and environmental controls to ensure economical, reliable performance. Storage capacity configured in 500kWh increments.

LIGHTING



LED RETROFIT KITS

- Utilize existing housing and lens
- Utilize existing housing with updated lens/look



AREA AND STREET LIGHTS

- New fixtures to replace existing HID fixtures

AIR SYSTEMS

YORK AIR HANDLING UNITS, COILS & FANS



AIR HANDLING UNITS (SOLUTION™) • 2,000-120,000 CFM

Indoor and outdoor, 2" foam double-wall panels with external frame, variable aspect, flexible factory-packaged controls



CUSTOM AIR HANDLING UNITS • 2,000-200,000 CFM

Indoor and outdoor, 2", 3" or 4" foam double-wall panels with integral frame, full thermal break options, fully customizable



COILS • Maximum 96" Finned Height and 168" Finned Length
Hot water, chilled water, glycol, steam, refrigerant, aluminum or copper fins, special coatings available



BLOWER COILS • 800-4,000 CFM

Small air handling and large fan coil applications; various configurations



FANS • 75-100,000+ CFM

Commercial and industrial supply and exhaust fans

UNDERFLOOR AIR DISTRIBUTION (UFAD) SYSTEMS



UNDERFLOOR TERMINAL UNITS • 15-1,500 CFM

VAV or manual diffusers, linear trough, UFAD fan powered terminal units, underfloor chilled beams

CHILLED BEAMS



OVERHEAD CHILLED BEAMS • Up to 1,700 BTU/h and 40 CFM per LF • Active and passive chilled beam products available in 2 - 10 foot lengths

TERMINAL UNITS



FAN-COIL UNITS • 250-2,000 CFM

Exposed and concealed, horizontal and vertical, vertical stack, variable cabinet sizing, direct-drive, flexible factory-packaged controls



UNIT VENTILATORS • 500-2,000 CFM

Horizontal and vertical units, flexible factory-packaged controls



VAV TERMINAL BOXES • 75-8,000 CFM

Single or dual-duct, series or parallel fan-powered, flexible factory-packaged controls, water and electric heat options

PACKAGED & SPLIT DX SYSTEMS



PACKAGED ROOFTOP UNITS • 2-150 tons

VAV and single-zone VAV applications, direct replacement options



DEDICATED OUTSIDE AIR SYSTEMS (DOAS) • 50-100% outside air

High efficiency DX, energy recovery wheel and hot gas reheat options



COMMERCIAL SPLIT SYSTEMS • 1.5-50 tons

Cooling only or heat pump outdoor units with matching cooling only, heat pump or electric heat indoor air handling units



WATER SOURCE HEAT PUMPS • 0.5-30 tons

Vertical and horizontal (standard, high and premium efficiency), console, vertical stacked (high and premium efficiency), geothermal capable



REVERSIBLE CHILLERS • 2-50 tons

Water-to-water heat pumps, (2-5 tons & 10-50 tons), modular application, geothermal capable



WATER-COOLED SELF-CONTAINED UNITS • 5-105 tons

Indoor, VAV application (> 8 tons), various heating options



AIR-COOLED SELF-CONTAINED UNITS • 2-25 tons

Indoor, VAV application (> 8 tons), rooftop alternative for dense building landscapes



AIR-COOLED CONDENSERS & FLUID COOLERS • 65-2,890 MBH

Water or glycol, multiple refrigerant options

ENERGY RECOVERY SYSTEMS



ENERGY RECOVERY VENTILATORS (ERV) • 200-12,000 CFM

Energy efficient ventilation including many heating and cooling options



HVAC LOAD REDUCTION UNITS (HLR) • Replaces up to 4,000 CFM of OA

ASHRAE 62.1 compliant product, up to 80% reduction in outside air replacement

INTEGRATED SECURITY & FIRE, LIFE-SAFETY PROTECTION

FIRE HAZARD PROTECTION



FIRE DETECTION AND ALARM

Flexible, reliable, cost-effective and highly scalable systems that can grow and expand as buildings change.



WATER FIRE SUPPRESSION

High-performance sprinkler, deluge & water mist systems.



SPECIAL HAZARD FIRE SUPPRESSION

Foam, clean agent and inert gas systems provide unique answers to unique challenges.



MASS NOTIFICATION SYSTEMS

Customizable, multi-tiered technology helps improve situational awareness and response time.



MECHANICAL PRODUCTS

Cost-effective grooved piping solutions for a full range of fire, mechanical, HVAC and industrial applications.



GAS AND FLAME DETECTION

Advanced sensor technology for multiple flame and toxic gas detection.

LIFE-SAFETY AND PERSONAL PROTECTION



RESPIRATORY PROTECTION SYSTEMS

Supplied air respirators, cylinders, air purifying respirators (APR), and many more solutions that address broad hazardous and industrial applications.



THERMAL IMAGING PRODUCTS

NFPA compliant technology offers comprehensive capabilities to maximize situational awareness.



PERSONAL PROTECTIVE EQUIPMENT

Innovative, industry specific equipment for first responders, firefighters, law enforcement, military and industrial personnel.



COMPRESSORS

Vertical and horizontal units are designed as free standing modules.



COMMUNICATION SYSTEMS

Robust person-to-person communications, advanced audio and wireless technologies, and two-way radio interoperability.

INTEGRATED SECURITY



SECURITY, FIRE & LIFE-SAFETY INTEGRATION

We are a security integrator with a vast product ecosystem specializing in the design, installation and service of security and life-safety solutions for the most complex, mission critical environments.



SECURITY MANAGEMENT SYSTEM (P2000)

Open security management platform with integrated access control, embedded video management and industry-wide third-party integrations.



ACCESS CONTROL / BIOMETRICS

Access control readers, doors, gates and devices help control, track and manage access to any facility.



INTRUSION DETECTION

Solutions customized for each customer leveraging contact devices, motion and glass break detection, panic buttons, photo beam and much more.



PERIMETER PROTECTION

Help achieve a more secure perimeter with ground based radar systems, video surveillance and monitored alarm systems.



VIDEO SURVEILLANCE, VIDEO MANAGEMENT & STORAGE

Robust surveillance systems with video cameras, monitors, CCTV and remote management tools. Scalable, integrated solutions and advanced video analytics.



SECURITY MONITORING

Fully redundant, UL®-listed Customer Care Centers provide 24/7/365 security monitoring.



COMMAND & CONTROL

Physical security information management (PSIM) helps manage all integrated physical security from one streamlined interface.



VEHICLE & GATE MANAGEMENT

K-rated fences and gates, pop-up vehicle barriers, traffic barricades and more to help protect against unauthorized people, vehicles, explosives and other threats.



DURESS & NOTIFICATION SYSTEMS

Broadcast critical messages quickly, all from a simplified web-based interface.



MANAGED SERVICES

Managed video, access control, mobile management, video guard and cloud-based video connected across a variety of platforms to help maintain secured environments in real-time.

RETAIL SOLUTIONS



LOSS PREVENTION

Integrated solutions to help reduce theft and fraud. Key components include store front detection systems (EAS, RFID), tags and labels for products, and camera systems. Software and analytic solutions help efficiency and provide insight.



INVENTORY INTELLIGENCE

TrueVue leverages item-level RFID-enabled technology enabling real-time item-level inventory visibility through the supply chain and into stores.



TRAFFIC INSIGHTS

ShopperTrak provides insights into more than 40B shopper visits per year, including store perimeter traffic counts, interior shopper analytics, labor analytics and market intelligence dashboards to help retailers increase traffic, conversion rates and transaction size.

OPERATIONAL INTELLIGENCE & ASSET PROTECTION



VIDEO BASED ANALYTICS

Video analytics software, web-based video analytics, servers, video audits and more help to analyze the data that matters across many industries.



REAL-TIME LOCATION SYSTEMS (RTLS)

Help keep staff and equipment safe with an RTLS that monitors equipment, medications, temperature sensitive products and staff



INFORMATION MANAGEMENT SOLUTIONS

Integrate multiple systems from multiple vendors, across multiple locations to more effectively manage overall security.

MAKING PROGRESS TOGETHER

Johnson Controls Building Technologies & Solutions partners with customers all over the world, in all market segments: education, healthcare, retail and commercial buildings, institutional and government facilities. We're thinking about your future, and the world's future, to create smarter, safer, more sustainable buildings for today and tomorrow. Our team delivers the technology and expertise that helps the world progress.

Let's talk about the connected building systems, services and solutions we offer to help you achieve your goals.

Call today or learn more at: 844.722.1269

Some of the renowned brands from Johnson Controls include:

tyco

 **YORK**®  **METASYS**®

 **Simplex**  **Grinnell**

Sensormatic®  **ShopperTrak** **TrueVUE**®

exacq  **ANSUL**® **DSC**®  **Visonic**

 **American Dynamics** **KANTECH** **SOFTWARE HOUSE**

JOHNSON CONTROLS AND THE JOHNSON CONTROLS LOGO, METASYS, YORK, TYCO, SIMPLEX AND GRINNELL are marks and/or registered marks. Unauthorized use is strictly prohibited.

Technology Contracting™, Solution™, and EcoAdvance™ are trademarks of Johnson Controls, Inc. in the United States of America and other countries. Other trademarks used herein may be trademarks or registered trademarks of other companies.

ENERGY STAR® and the ENERGY STAR® mark are registered trademarks owned by the U.S. Environmental Protection Agency.

UL™ and the UL logo are trademarks of UL LLC.

© 2016 Johnson Controls. All Rights Reserved.
P.O. Box 423, Milwaukee, WI 53201
Printed in USA
MISC-939 LT1313-00 MC100-2016-008
www.johnsoncontrols.com



Distributed Energy Storage System

L1000 In-Building

Manage energy use, cut costs and provide backup power for a building, campus or enterprise with the L1000 In-Building Distributed Energy Storage System from Johnson Controls. We combine world-class battery technology, in-depth buildings expertise and intelligent controls to deliver the solution that performs best with your specific building systems.

Controls go beyond the battery to optimize whole-building performance and simplify participation in energy markets. Adaptive algorithms and premium battery composition help you realize the lowest total lifecycle cost.

As a global multi-industrial leader emphasizing manufacturing excellence, Johnson Controls is perfectly positioned to partner with you on state-of-the-art energy storage. Learn how you can store and distribute power off the grid with the L1000 small container solution.

Economic Value

The system provides the ability to save money as well as participate in energy markets to deliver economic value to buildings.

Short-Term Energy Backup

The system can be configured to provide short-term electrical backup to the facility while a generator is ramping.

Multiple Power Options

The system output can be configured based upon customer needs from 50kW up to 250kW.

Modular Capacity Options

The system capacity can be configured in increments of 43 and 65 kWh.



Metasys® Compatible

The system integrates seamlessly into the *Metasys*® Building Automation System for local monitoring and control.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Small Footprint

The system can be installed in any electrical room connected to the facility grid.

Distributed Energy Storage System

L1000 In-Building

Product Specifications

	BU-43	BU-65
Minimum Storage Capacity	43 kWh	65 kWh
Storage Capacity Increment	43 kWh	65 kWh
Power Rating	Dependent upon PCS	
Applications	Frequency Regulation, Peak Shaving, Load Shifting, Backup, Volt/Var Support	
DC Voltage	518 VDC	778 VDC
Seismic	Zone 4 (California)	
Market Interface	Johnson Controls	
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet	
Monitoring	Local and Remote	
Battery Cells	VL41M 41Ah Li-Ion Cylindrical Battery	
Certification	Pending	Pending
Expected Life	Up to 20 years*	
Dimensions (W x D x H)	37 x 23 x 74 in.	37 x 23 x 74 in.
Weight (lbs)	1950 lbs.	2600 lbs.

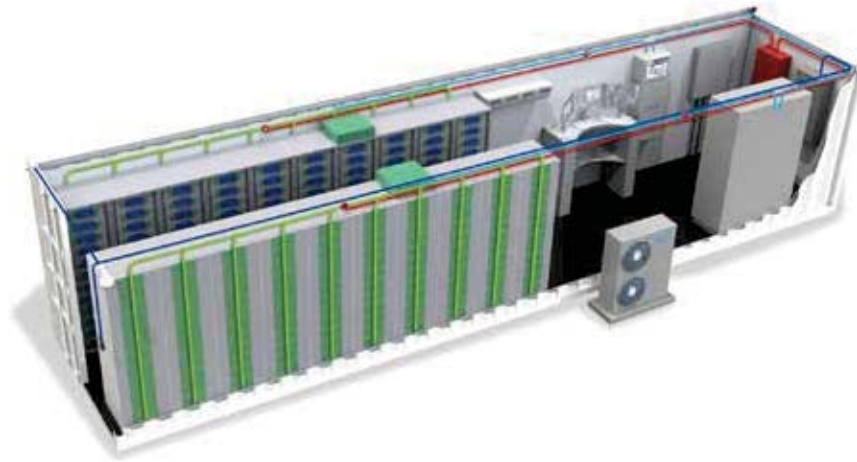
*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Battery Units	
BU-43	43 kWh Li-ion battery storage
BU-65	65 kWh Li-ion battery storage

Distributed Energy Storage System

L2000 Modular Container



Discover state-of-the-art distributed energy storage for utilities and large commercial customers. The L2000 Modular Container Distributed Energy Storage System from Johnson Controls draws on our world-class battery technology, facilities expertise and intelligent controls to handle multiple, concurrent applications. This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants.

Multiple Application Support

The system can be programmed to perform multiple, concurrent applications including transmission and distribution deferral, capacity, voltage support, renewable integration, frequency regulation, and other ancillary services.

Multiple Power Options

The system output can be configured based upon customer needs from 500kW up to 2MW.

Modular Capacity Options

System capacity can be configured based upon customer needs in 500kWh increments.

Utility and Building Compatible

The system integrates seamlessly into the utility or building energy management system using standard protocols.

The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost. As a global multi-industrial leader, we have the manufacturing excellence, innovation focus and customer insight to deliver leading-edge distributed energy storage products. Learn how the L2000 modular system brings new opportunities to regulate, store and distribute power.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Separable Power Conversion

For customers with their own power conversion system, the battery units can be ordered separately.

Modular Footprint

Batteries are housed in custom 20ft or 40ft containers to ISO shipping container dimensions.

Distributed Energy Storage System

L2000 Modular Container

Product Specifications

Minimum Storage Capacity	500 kWh
Storage Capacity Increment	500 kWh
Power Rating	Dependent upon PCS
Applications	Transmission and Distribution Deferral, Capacity, Frequency Regulation, Voltage Support, Renewable Integration, and Other Ancillary Services
DC Voltage	778 VDC (nominal)
AC Voltage	Dependent upon PCS
Seismic	Zone 4 (California)
Market Interface	Johnson Controls
Utility Interface	DNP3
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet
Monitoring	Local and Remote
Fire Alarm Detection	Potter
Fire Suppression	Stat-X Aerosol
HVAC	18,000 BTU York
Network Security	SSL/X509
Battery Cells	VL41M, 41Ah Li-Ion Large Format Cylindrical
Expected Life	Up to 20 years*
Dimensions (W x D x H)	8 feet (2.438 m) x 20-feet (6.95 m) x 8 feet (2.438 m) 8 feet (2.438 m) x 40-feet (12.19 m) x 8 feet (2.438 m)
Weight (lbs)	PCS-500 = 3500 lbs., PCS-2000 = 7000 lbs., BU-1000 = 50,000 lbs.

*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Power Conditioning Systems	
PCS-500	500 KW Inverter
PCS-1000	1 MW Inverter
PCS-2000	2 MW Inverter
Battery Units	
BU-500	500 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1000	1000 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1500	1500 kWh Li-ion battery storage with DNP3 / BACnet interface
Remote Monitoring Units	
RMU-CELL	4G LTE remote monitoring interface
RMU-WIFI	Wireless Internet monitoring interface
RMU-ETH	1G Ethernet interface

Lighting Design Considerations for K-12

Students who are comfortable and happy in their physical environments actually have a better chance of doing well in school. In fact, reports show that **students in well-maintained facilities score up to 10 percent higher on standardized tests.**

You may know Johnson Controls for building systems and equipment, but we also provide lighting solutions and financing expertise to help you build a brighter future for your school.

Depending on the standards that apply, the following indicates the controls required in a school. The ASHRAE 90.1 2010 version expands the list of control requirements: occupancy sensors (or timer switches, per approval by the authority having jurisdiction) that turn the lights off within 30 minutes of the space becoming unoccupied are required in:

- Classrooms and lecture halls
- Conference, meeting and training rooms
- Lunch and break rooms
- Storage and supply rooms between 50 and 1,000 sq. ft. in size
- Rooms used for document copying and printing
- Office spaces up to 250 sq. ft.
- Restrooms
- Dressing and locker rooms

Exceptions include shop and laboratory classrooms, spaces with multi-scene (e.g., dimming) control systems, lighting required for 24-hour operation and spaces where automatic shut off would endanger safety or security of people or property.

Design Considerations

Determine what "standards" need to be followed for light levels, controls, lighting power density, etc.

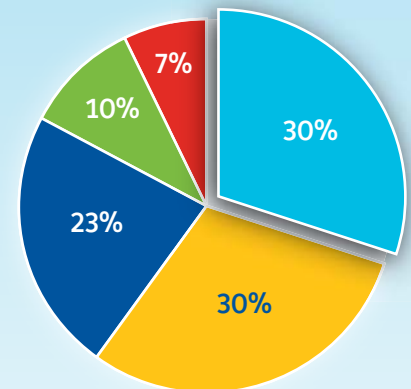
Depending on the standards that apply, the following table indicates the maximum lighting power density (watts/sq. ft.) allowed in a school.

Building Type	Maximum Lighting Power Density (W/sq. ft.) allowed per version of the ASHRAE/IES 90.1 Standard			
	1989	1999/2001	2004/2007	2010
School/University	1.29	1.5	1.2	.99



According to the U.S. Department of Energy, lighting is 30% of the total energy consumed in a typical school.

Typical School Energy Use Distribution
(varies by climate zone)



- Lighting
- Cooling
- Space heating
- Water heating
- Other



Classrooms

In order to provide the most efficient system to meet the adopted codes for classrooms, the following information should be captured:

- Typical layout of the fixture spacing in the classroom
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/outboard switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

CLASSROOM FOOT CANDLE (FC) REQUIREMENTS			
General	20 FC	Art	25 FC
Music	15 FC	Home EC	50 FC
Science Lab	50 FC	Shop	50 FC
Study Hall	15 FC	Multipurpose	25 FC

Gymnasiums

In order to provide the most efficient system to meet the adopted codes for gymnasiums, the following information should be captured:

- Typical layout of the fixture spacing in the gymnasium
 - Allows for light level verification of proposed upgrade
 - Fixture spacing patterns over the court and mounting heights
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for fixture control patterns and light level selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with new fluorescent high bay fixtures.
 - Consider dimming or stepdown options for light level options for recreation and/ or competition play. Refer to IES requirements below.
- Maximize energy savings by performing sample light level calculations using software design programs for new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the class of play and activities. See the chart below to determine the correct foot candle requirements.



GYMNASIUM FOOT CANDLE (FC) REQUIREMENTS			
Physical Education	25 FC	HS Competition	50 FC





Hallways/Stairs

In order to provide the most efficient system to meet the adopted codes for hallways and stairs, the following information should be captured:

- Typical layout of the fixture spacing in the hallways and location of fixtures in the stairs
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/out-board switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls’ manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of “scenes” required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

HALLWAYS/STAIRS FOOT CANDLE (FC) REQUIREMENTS			
Hallways	2.5 FC	Stairs	5 FC

Let us help you build a brighter school and improve student achievement. Visit www.johnsoncontrols.com/k12 to find your local expert.

REFERENCE:
Illuminating Engineering Society, *The Lighting Handbook* – Tenth Edition, Reference and Application

Johnson Controls and the Johnson Controls logo are registered trademarks of Johnson Controls, Inc., or its affiliates, in the United States of America and/or other countries.

ELEVATE PORTFOLIO PERFORMANCE WITH METASYSYS® ENTERPRISE ENERGY OPTIMIZATION

A family of applications designed to help drive asset uptime, lower energy costs and increase productivity

Today's well-designed building automation systems produce a wealth of data, events and alerts that can be overwhelming. Stretched for time and short on resources, you frequently don't have the capacity to sift through volumes of data to identify critical, costly issues. Metasys Enterprise Energy Optimization helps to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise.

BRINGING IT ALL TOGETHER IN ONE COMPREHENSIVE VIEW.

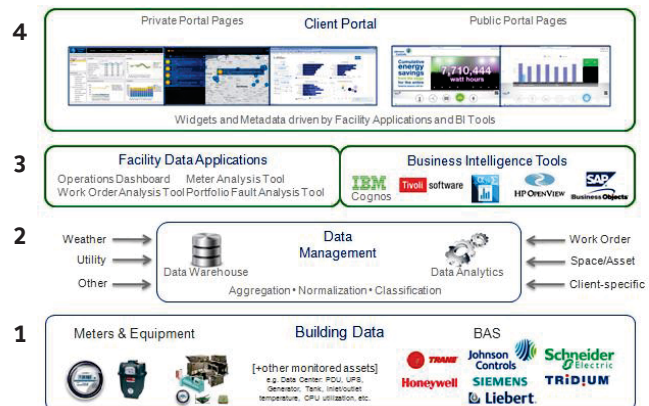
Metasys Enterprise Energy Optimization is a family of dashboards, metering and workflow tools that combine to help you cut through the data clutter with clarity and insight. The applications aggregate and normalize data, analyze it based on standard and client-specific priorities, and then deliver it through visually rich and easy-to-understand maps, charts and graphs. Together, these tools give you an unprecedented view into the performance of your portfolios, allowing you to ensure asset uptime, lower energy costs, increase productivity and report return on investment. Metasys Enterprise Energy Optimization applications combine to deliver value through a four-step process:

1. Gather. The applications are designed to integrate data from countless programs and systems including real estate, work order, energy spend, utilities use and building automation systems (BAS), including Johnson Controls Metasys and other BAS brands. From these various sources, standard data sets are gathered, along with any other customer-specific data that may be valuable based on the customer's goals and priorities.

2. Normalize. The data is then brought together in one place and normalized so it can be used by various applications across multiple vendors and types of devices. The full, normalized data set will then be analyzed to look for anomalies and potential problems, and to identify opportunities for improvement or optimization.

3. Deliver. The analyzed data is then delivered to two types of applications: Facility data applications and business intelligence tools. The facility data applications include dashboards and tools that will further analyze the data to uncover hidden insights, identify faults, prioritize them and allow building professionals to respond to events and alerts. By feeding the normalized data into business intelligence tools, organizations can track building performance against other business goals, such as measuring the amount of energy used per manufactured unit.

4. Visualize. Analyzed, prioritized data is only valuable if it can be easily interpreted. Metasys Enterprise Energy Optimization applications translate data into visual cues that are displayed two ways: A public portal, also known as a "Green Kiosk", displays metrics on things like energy and water use in a way that can be easily understood by the general public. And private portal pages are used by facility staff to assess situations and respond to events and alerts.



METASYS ENTERPRISE ENERGY OPTIMIZATION APPLICATIONS

VIEW & ANALYZE PORTFOLIO PERFORMANCE IN REAL TIME

The **ENTERPRISE DASHBOARD** provides a map-based, high-level overview of your entire real estate portfolio, along with the ability to drill down to individual regions or facilities for more focused views of performance. With the Enterprise Dashboard, you can:

Navigate your way. What's intuitive for one user may not work well for another. On the Enterprise Dashboard, you can drill down to levels of detail using whatever method you prefer, from a scrolling list of facilities, a text search or by zooming in from a map of your real estate portfolio.

Easily identify key performance indicators. Across the vast sources of data being pulled into the dashboard, selected, key metrics can be aggregated for the entire portfolio. The data can be displayed as either graphics or text, and can be exported for use in spreadsheets or other third-party applications.



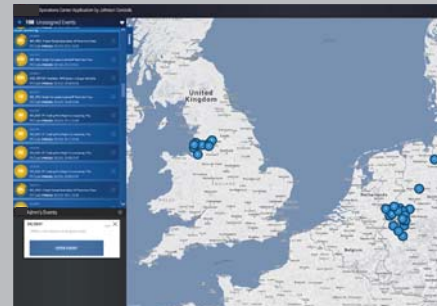
INCREASE PRODUCTIVITY WITH SIMPLE, EFFICIENT WORKFLOW

The **OPERATIONS DASHBOARD** is designed to help you cut through the clutter, by displaying information in a way that's relevant, meaningful and actionable. With it, you can:

Prioritize response. The Operations Dashboard organizes performance information in priority order so you can easily see which efforts will have the greatest impact tied to your specific goals, and with the least amount of hands-on effort.

Eliminate duplication of effort. On the Operations Dashboard, priority issues are placed atop a stack of event banners, allowing authorized operators to simply drag events from the stack and into their workspace. Once an operator has 'claimed' an event banner, that event is removed from the public stack, eliminating the conflict of multiple operators working on the same problem.

Take appropriate action. The Operations Dashboard offers a simple workflow to respond to events and alerts. It presents detailed information on the event, a work order history related to the event, and large decision buttons to Suppress (hide for now), Abandon (return it to the queue), or Create Work Order (act on it). The Create Work Order action is tied to a maintenance management system, such as Maximo, to automatically generate work orders in that system.



SHOW OFF YOUR EFFORTS TO FOSTER GOOD WILL AND FURTHER SUCCESS

Most people have no idea if the buildings they occupy are well run or highly inefficient. The **GREEN KIOSK DASHBOARD** is designed to help you spread the word about your sustainability efforts. The public-facing, dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors. With it, you can:

Tell relatable story. The Green Kiosk displays metrics on things like energy and water use in a way that can be easily understood by the general public. For example, would occupants or visitors to your facility know what it means to reduce CO2 emissions by 24 tons in one week? They may have a greater appreciation for your efforts if the result – a reduction of 24 tons – was displayed with an interpretation such as, “That’s the equivalent of taking XX cars off the road.”



Foster good will and accelerate results. As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

EXPOSE ANOMALIES AND INEFFICIENCIES

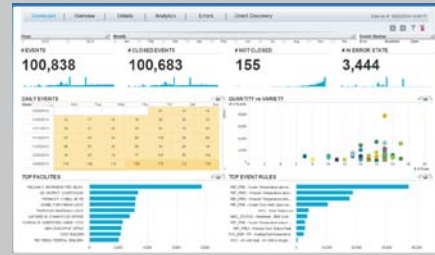
The **METER ANALYSIS TOOL** application includes a collection of visualization widgets to explore and uncover irregularities within energy and other metered utilities. Widgets include energy intensity, campus view, facility comparisons, utility-use heat map, and usage profiles mapped to calendar days. With the Meter Analysis Tool widgets, you can:

- Uncover anomalies.
- Incorporate weather data such as outside temperature and humidity.
- Explain past performance.
- Direct attention to areas of importance.
- Benchmark utility usage.



UNCOVER HIDDEN INSIGHTS WITH AUTOMATED ANALYTICS

The **FAULT ANALYSIS TOOL** is designed to help you proactively discover anomalies and equipment performance issues before they lead to alarms, occupant discomfort or even system failure. By taking a proactive approach to fault detection, you can operate buildings more efficiently and competitively. The Fault Analysis Tool automates detection of faults and other conditions of interest based on priorities you establish. With it, you can:



Customize rules. Rules can be configured to monitor and alert on faults or other conditions of interest in real time, 24/7, or can be applied to historical data to look for past events.

Minimize rule entry. Data from building management systems are automatically imported and grouped by system. A single rule definition can then be applied to a class of system, providing wide coverage with minimal effort.

Avoid costs. Critical events can be tagged for escalation and all events can be optionally monetized to focus priorities.

Analyze root causes. By analyzing the frequency of events and their escalation rates over time, the tool helps you gain insight into the overall performance of key systems and patterns of activity, which may provide clues to root causes.

Add analytics. New areas of interest can be added to the rule set over time, creating an even more powerful capability. And because they can be customized, the rules are aligned with the operational interests of each facility.

Expand surveillance. Initially, rules may be created to uncover problems and suggest root causes and remedies. Later, these same rules guard against reoccurrence of faults as equipment and systems age, or from previously unidentified causes.

The **WORK ORDER ANALYSIS TOOL** is designed to track the status of work orders generated through the Operations Dashboard.

With it, you can:

- View, at-a-glance, the number of work orders reported, closed and the total number of hours worked.
- Track work orders by day, type and location.
- Drill down to view the details of any metric.



GAIN UNPRECEDENTED VISION AND CONTROL

Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give facility professionals' unprecedented control over the operation of their portfolios, with easy-to-use tools designed to help them ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information visit johnsoncontrols.com/metasys or talk to a Johnson Controls representative at (844) 883-1291.



REINFORCE YOUR PUBLIC IMAGE *as a sustainability leader with the METASYS® GREEN KIOSK DASHBOARD*

Put your energy efficiency efforts on display

Part of your commitment to energy efficiency and sustainability is demonstrating how your efforts are benefiting the environment. The Metasys Green Kiosk ensures your energy efficiency efforts get noticed by displaying the impact of your initiatives in real time – on a touch-screen kiosk and online. The Metasys Green Kiosk uses maps, charts, graphs and videos to communicate performance in ways that are easily understood by your facility’s occupants and visitors.

CHOOSE THE INFORMATION YOU WANT *to display*

The Green Kiosk makes use of the Johnson Controls Metasys building automation system to gather data on building performance. And because Metasys integrates with so many different devices, there’s almost no limit to the amount and type of information you can collect and present at the kiosk. Most Green Kiosk users choose to display standard metrics such as electricity usage and water consumption. But it’s possible, for example, to measure how much water is being used specifically by lawn sprinklers or how much energy is used to charge someone’s electric car. If it can be measured, it can be displayed.



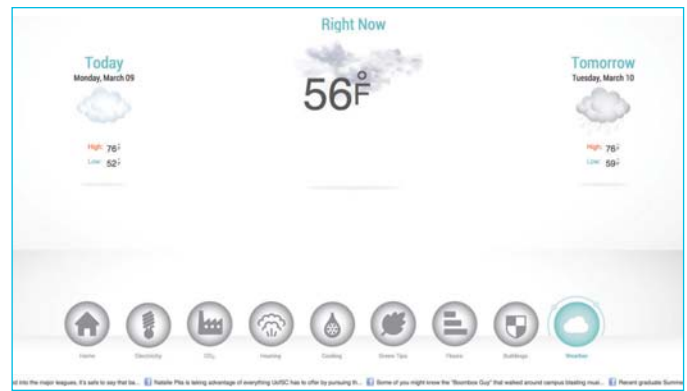
TELL A RELATABLE *story*

Because the Green Kiosk is a public-facing tool, it’s designed to display information in a way that’s easily understood by your facility’s occupants and visitors. For example, instead of just displaying the number of kWh consumed during the previous week, the Green Kiosk also translates electricity use into terms that are relatable: “That’s enough energy to cook 1,922,711 pieces of toast.” The ‘equivalents’ – as they’re called – can also be customized to make them even more meaningful to your audience. On a college campus, an ‘equivalent’ might read, “The cost of last week’s electricity could buy 1,642 slices of pizza.”



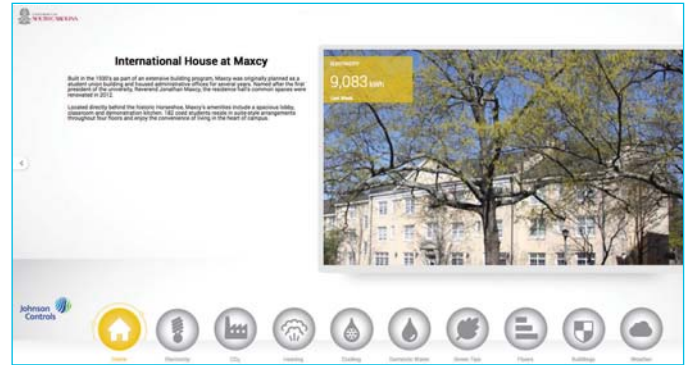
INTEGRATE NON-BUILDING DATA

Green Kiosks are often located in the lobby of a facility, where monitors may already display information such as news, weather, traffic and the company's stock price. If you're currently using monitors to display information in a public space such as a lobby, the Green Kiosk can also pull and display that kind of non-building data within its interface, allowing you to maximize the investment you've made to generate the data.



MANAGE YOUR OWN CONTENT

With the Green Kiosk, you can authorize users within your organization to update the content, eliminating the need to pay (and wait for) a third party to make a change when it's needed. Managing your own kiosk content not only saves time and money, it allows you to easily keep the content fresh and relevant, which will in turn, help to engage occupants and visitors.



FOSTER GOOD WILL *and* ACCELERATE RESULTS

As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

Most people have no idea if the buildings they occupy are well run or highly inefficient. The Green Kiosk's dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors.



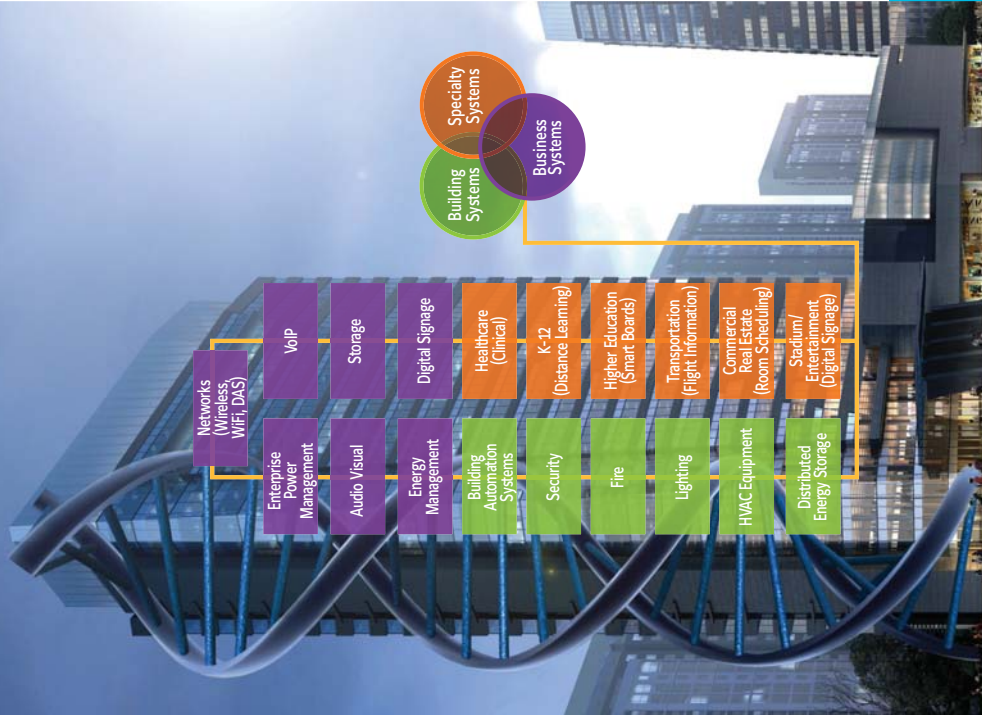
AND THAT'S JUST THE BEGINNING

The Metasys Green Kiosk is part of a family of dashboards, metering and workflow tools designed to help you to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise. Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give you unprecedented control over the operation of your portfolio, with easy-to-use tools designed to help ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information about the Metasys Green Kiosk or Metasys Enterprise Energy Optimization, visit johnsoncontrols.com/metasys, or talk to a Johnson Controls representative at (844) 883-1291.

WE ENGINEER GENIUS INTO A BUILDING'S DNA

Building Wide Systems Integration brings technologies together to create efficiencies for the life of your building.



Building Wide Systems Integration

There's a better way to construct a smarter building. By leveraging convergence of building, business/IT and specialty systems from the beginning you can have a bigger impact on first and lifecycle costs and enhance the functional capabilities for your business. By simplifying and optimizing the process, you'll create an innovative, optimized, efficient and sustainable environment that delivers connected experiences for the people who work there.



Intelligent Building Integration Framework

The Intelligent Building Integration Framework (IBIF) is our process for designing and implementing integrated systems. IBIF consists of a catalog of technologies and use cases across the building, business and specialty system domains. IBIF allows you to implement a proven set of technology designs to meet building and business needs.



Technology Contracting

Save time, reduce risk and decrease construction and operating costs while ensuring that technology is deployed and integrated in an orderly manner with Johnson Controls as the single point of responsibility for technology implementation. Along with an innovative Partner Ecosystem, we provide critical continuity from start to finish. The result is an optimized, intelligent and secure infrastructure that delivers the outcomes you require.



Design Assist

We'll collaborate with the design and construction teams at the earliest phase of the project to optimize the layout and integration of systems and technologies. In partnership with the design team, Johnson Controls makes recommendations for product selections that maximize the efficiency, integration, interoperability, and lifecycle service of technology systems. Moving these decisions to the earliest phase of the design process drives consensus, mitigates construction risk, results in fewer change orders during construction and systems installation, and delivers customer-defined outcomes.



Partner Ecosystem

Our Partner Ecosystem of manufacturers, distributors and value added resellers brings proven, repeatable, best-in-class technologies to your project. This network of industry leaders has the experience, expertise and innovative services and solutions that meet energy, technology and operational objectives, while reducing cost and risk.



Technology Navigation

This structured, interactive process allows you to quickly assess and prioritize technology needs and investments. Participants include a cross functional team from your enterprise, and the construction project team - architects, engineers and general contractor - as required. It results in a technology roadmap, process improvements and a direct path to addressing your most important needs with the most impact.



Integration Hub

We test the interoperability of building, business and specialty systems to create the connected environment that meets energy, technology and operational objectives. The controlled test and development environment of the Integration Hub leverages the Metasys® building automation system platform to validate potential use cases, resulting in tested integrations and interoperability that functions more securely, reliably, scales based upon need, and positively impacts outcomes.



Day 2 Services

After implementation, we resolve critical network issues via a combination of maintenance and warranty coverage for network equipment. We offer 24x7x365 customer support from the Johnson Controls Remote Operations Center (ROC). We'll proactively monitor your network to detect potential problems before they arise, troubleshoot and resolve problems remotely, or send a qualified technician onsite to fix, repair, or replace non-performing components.



Technology Refresh

Update your IT infrastructure during a building retrofit to ensure the latest technology, intelligent infrastructure and bandwidth are in place to handle future innovation.

**BUILDING WIDE SYSTEMS INTEGRATION
POWERED BY BRAINS**









BUILDING WIDE SYSTEMS INTEGRATION

Bringing technologies together to create efficiencies for the life of your building.







Building Systems & Equipment

Building Systems integrations are the key building blocks for creating a smart building and driving increased efficiency.

HVAC Controls	HVAC Equipment
	
Building Management	Air Systems
	
Security	Fire
	








Business Systems

Business Systems integrations provide an avenue to create more complex, automated workflows that positively impact energy utilization, staff efficiency and overall project cost.

Audio Visual	Networks, Wi-Fi, DAS, GPOS
	
VoIP	Power Management
	
Distributed Energy Storage	Digital Signage
	

Vertical Market Specialty Systems

Vertical Market Specialty Systems integrations combine the benefits of Building and Business Systems integrations with Vertical Market-specific Systems. Our vertical market expertise allows us to understand the unique opportunities, challenges, regulations and compliance issues within each market.

Healthcare	Higher Education	K-12
		
<ul style="list-style-type: none"> - Clinician Mobile Communications - Nurse Call - RTLS, Patient Wandering, Infant Protection - Patient Monitoring/Telemetry - Patient Engagement Systems - HEO 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
Transportation	Stadiums & Entertainment	Commercial Real Estate
		
<ul style="list-style-type: none"> - Ramp Service Management - Baggage Handling System - Flight Display System - RTLS/Wayfinding - Distributed Antenna Systems - Parking Systems 	<ul style="list-style-type: none"> - Command Center Solutions - Emergency Communications - Video Analytics - Broadcast/Production Systems - Distributed Antenna Systems - Scoreboards - Fan Experience Applications - Point of Sale - RTLS/Wayfinding - Kiosks 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
	Local Government	
		
	<ul style="list-style-type: none"> - Wireless VoIP - Distributed Antenna Systems - Shot Detection - Solar LED Lighting - Parking Systems - In-car Police Video - Public Wi-Fi 	

CONVERGED TECHNOLOGY SOLUTIONS TO PRODUCE SMARTER BUILDINGS

Printed on recycled paper. Johnson Controls, the Johnson Controls logo and Technology Contracting are registered trademarks of Johnson Controls or its affiliates, in the United States of America and/or other countries. ©2016 Johnson Controls, P.O. Box 423, Milwaukee, WI 53201. Printed in USA. MSC - 931 www.johnsoncontrols.com

Connected, safe, secure and sustainable buildings, campuses and cities.

- ### Maximum Value Delivered
- Systems that work Day 1
 - Reduction in first and lifecycle costs
 - Sustainability
 - Serviceability of all systems
 - Desired outcomes – today and in the future





Johnson Controls RFP Response to The Interlocal Purchasing System (TIPS)

RFP 180203 Renewable Energy and Solar Solutions and Services

March 16, 2018

© 2018 Johnson Controls, Inc. Do not copy (physically, electronically, or in any other media) without the express written permission of Johnson Controls, Inc.



Johnson Controls, Inc.
5757 North Green Bay Ave P.O. Box 591
Milwaukee, WI 53201



The Interlocal Purchasing System (TIPS)
Region 8 Education Service Center
4845 US Hwy. 271 North
Pittsburg, Texas 75686

Dear TIPS Selection Committee,

TIPS members are well aware that the infrastructure and services required to meet the unprecedented demands of public facilities have been on the rise, while available funding has been heading in the opposite direction.

The last thing TIPS members need to worry about is the facilities that make their mission possible. That is where Johnson Controls can step in to help. As leaders in building efficiency, we provide many Renewable Energy and Solar Solutions and Services that can help TIPS members reduce energy costs and improve the energy efficiency of their facilities.

Johnson Controls can support TIPS members nationwide from over 140 branch locations, including 10 branch offices in Texas. Our Advanced Solutions Team can help TIPS members develop solar, wind power, energy storage, geothermal, or biomass projects at their facilities. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

Johnson Controls has supported **over** 20 TIPS customers through our current and recent contract awards. Because we view ourselves as partners with our customers, we provide them with more than a set of technological upgrades based on our own equipment. Instead, we provide them with options for improving their facilities that enable them to choose the combination of improvements that makes the most sense for their organization. In doing so, we leverage existing technological investments to the largest extent possible.

We thank you in advance for giving us the opportunity to be considered for this opportunity, and we look forward to working with TIPS members on future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Pergande".

Andrew Pergande

Group Purchasing Organization Manager

Andrew.Pergande@jci.com

1-414-524-6937

Table of Contents

- Executive Summary 2**
 - Unparalleled Experience2
 - We Are Where You Are.....2
 - Flexibility and Consistency3
 - Safety3
 - Commitment to Diversity.....3
 - Commitment to Sustainability3
 - Pricing4
 - Conclusion.....4
- Proposed Goods and Services 5**
 - Solar Photovoltaic6
 - Wind Power7
 - Alternative Energy Powered Heating and Cooling.....7
 - Lighting for Street and Parking Lights7
 - Pumping Systems8
 - Microgrid.....9
 - Energy Storage9
 - Waste Heat Recovery and Urban Biogas Utilization 11
 - Sewer Heat Recovery 11
 - Renewable Energy Services 12
 - Past Experience with TIPS 13
 - Conflicts of Interest..... 14
 - Deviations of Terms 14



Executive Summary

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members can engage an Original Equipment Manufacturer (OEM) that can provide a single point of contact and accountability for all of their Renewable Energy and Solar Solutions and service needs. Our expert level of expertise in solar, wind power, energy storage, geothermal, or biomass will help TIPS members ensure that their project produces significant energy savings and the highest return on investment.

Unparalleled Experience

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members will engage an industry leader that has been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies.

Additionally, we are the national leader in Energy Saving Performance Contracting (ESPC) with a greater market share and more experience than any of our competitors. We currently hold over \$6 billion in performance-based guarantees through approximately 615 projects across North America.

This experience ensures that TIPS members can realize a high-performance project that is designed, implemented, commissioned, and serviced by reliable experts that have successfully performed similar projects for other K-12, higher-education, state, and local government bodies.

We offer our customers the reliability and financial stability of a Fortune Global 500 company with over 121,000 employees. Our sales for fiscal year 2017 totaled \$30 billion. Our financial muscle is balanced by a strong code of ethics. For ten years in a row, Johnson Controls was named one of the “World’s Most Ethical Companies” by the Ethisphere Institute. Corporate Responsibility Magazine has also recognized Johnson Controls as the #14 company in its annual “100 Best Corporate Citizens” list.

Our long history and proven capabilities illustrate that we can perform all phases of any project and provide TIPS member entities with best value through a coordinated set of impactful Energy Conservation Measures (ECMs), infrastructure upgrades, equipment maintenance and service, IGAs, or any combination of service that they require.

We Are Where You Are

Although Johnson Controls has a large national and international footprint, we understand the importance of having a local presence in the communities we serve.

Our extensive branch network is 100% company owned and operated, which enables us to share resources, expertise, innovations, and our corporate values throughout the entire branch network. This enables all of our

branch employees to benefit from the experience and lessons learned on projects we perform across the nation and around the world. No other Energy Services Company (ESCO) has a similar network.

By investing in local branch locations, we enable local decision-making authority that makes it easier to respond to the needs of customers in a timely manner. Our investment also helps support the communities where we live and work.

Flexibility and Consistency

TIPS members can benefit from our established and uniform development and implementation approaches that provide a consistent level of service and expedited delivery. We will apply the same management approach at a small-town school district, as we will for a world-renowned University or large state customer with highly dispersed facilities. This ensures that each project meets our standards of quality, safety, and maximum return on investment for our customers.

With the large number of resources available to our teams, we are able to provide projects with additional staff to meet aggressive deadlines. Additionally, our ability to streamline the development, procurement, and implementation processes ensures faster upgrades of facilities so our customers will realize savings sooner.

Safety

At Johnson Controls, we realize safety is just as important to you as it is to us. From onsite field employees to corporate offices, safety is built into all the services we provide.

Compared to the industry averages for Total Recordable Injury Rate (TRIR) and Lost Time Injury Rate (LTIR), Johnson Controls is leading the way in safety. In fact, our current safety record surpasses the published future safety goals of most industrial leaders.

Commitment to Diversity

For any project we undertake, we endeavor to maximize participation from minority-owned and Historically Underutilized Businesses (HUBs). This is an increasingly important goal for many of our customers, and benefits Johnson Controls by expanding our pool of available talent in each marketplace.

Johnson Controls is committed to being a leader in supplier diversity. By incorporating certified minority-owned suppliers, as well as small or disadvantaged businesses, into our customer solutions, we economically equip entire communities and gain a competitive advantage. We have more than 700 diverse suppliers representing more than 50 product and service categories. Approximately 7% of Johnson Controls' outside purchases are made with diverse suppliers and contractors with minority purchases making up approximately 80% of the spend. The remaining external purchases are from woman-owned firms and firms designated by government agencies as small or disadvantaged businesses.

Because of these efforts, Johnson Controls has joined the elite Billion Dollar Roundtable, an organization comprised of only 24 U.S. corporations that spend more than \$1 billion annually with minority- and women-owned businesses.

Commitment to Sustainability

Sustainability is a cornerstone of our business. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our corporate headquarters campus in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.

Since 2002, we have publically reported various sustainability data, including safety, and environmental metrics. We published our first annual Business and Sustainability Report in 2003, which details our performance in accordance with the Global Reporting Initiative (GRI) guidelines – the most widely accepted global standard for reporting corporate responsibility. Our Sustainability Report is available for you to view online at:

<http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies/business-and-sustainability-report/environmental-leadership>

Pricing

Johnson Controls offers Cost Plus pricing for renewable technologies. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts.

For estimating, our teams mainly use Nx Gen for Service work and the Projects Development Tool for larger scale projects. These are the tools we have used for some time and have used previously with TIPS and TIPS customers. Johnson Controls is willing to engage TIPS in an approval process for these tools if necessary.

Conclusion

TIPS members can ensure the success of their projects by selecting an experienced firm with a local presence and a long record of accomplishment in K-12, higher education, and state and local government projects. As the national leader in Renewable Energy and Solar Solutions and Services, we are uniquely well positioned to partner with TIPS members on their projects because we can provide a single source of accountability for any project. Whether your project is a Microgrid, a small solar system, emergency service, or any combination of services or products, TIPS members will get the same reliable service, high-performance, and attention to detail without regard to the size of your project.



Proposed Goods and Services

Warren S. Johnson, a professor at the State Normal School in Whitewater, Wisconsin, received a patent for the electric room thermostat in 1883. His invention launched the building control industry and was the impetus for the Johnson Electric Service Company, which he founded to manufacture, install, and service automatic temperature regulation systems. This foundation ignited a culture of customer-focused innovation for 130 years.

That passion continues today as Johnson Controls is a global leader in delivering solar, wind power, energy storage, geothermal, or biomass solutions. To date, we have been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies. Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000.

Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000. Our renewable technologies customers include K-12 school districts, higher education customers, local governments, state government departments, and federal government agencies.

Renewable solutions are a major focus of our organization. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our Building Efficiency headquarters in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.



Our renewable energy team has the capability to evaluate, design, and develop a diverse array of renewable energy technologies, such as solar, wind, bio-mass, landfill gas, and geothermal. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

The following list shows a subset of our renewable energy system capabilities:

- Solar photovoltaic
- Wind turbines
- Thermal heating systems
- Alternative energy HVAC
- Geothermal heat pumps
- Street and parking lighting
- Pumping systems
- Microgrid
- Energy storage
- Solar daylighting
- Biomass plants
- Solar thermal domestic water heating
- Solar transpired walls

Solar Photovoltaic

The Solar PV team is responsible for engineering design or oversight of design on solar PV projects, including product selection, vendor relationships, output modeling for PV systems, and preliminary cost estimation. This team has implemented over 100 Solar projects, including projects at Tulare, CA where we installed a 30 Kw PV system in the carport and a 1 MW system on land that generates 1,860,000Kwh annually.

The **State of Utah** implemented a **Solar for Schools** program with Johnson Controls that provided 73 5-kilowatt, high efficiency solar modules with inverters, mounting racks, spec sheets, and full warranties. The goal of the program is to mount at least one module in each of the state's 41 districts. We also provided training in renewable energy to help school staff ensure performance.

Other projects include the State of Utah, Mount Wachusett Community College, the U.S. Bureau of Land Management, and the Marine Corps Air Ground Combat Center in Twentynine Palms, California.

At **Wyandotte Public Schools** in Michigan, Johnson Controls installed an 8.4 kW-AC photovoltaic system on the roof of Wilson Middle School. The PV array provides electricity directly to the school to reduce the amount of electricity purchased from the local utility.

This installation is part of a multi-phased performance contracting program implemented over several years to reduce operating costs and improve comfort throughout the school district. The improvements enabled all 11 facilities across the district to obtain ENERGY STAR certification, making Wyandotte Public Schools the first district in the state of Michigan to achieve this distinction.



Solar for Schools is expected to remove more than 8,000 tons of carbon dioxide from the atmosphere over 20 years, equivalent to the carbon offset that would be generated by planting 11,000 trees and letting them grow for ten years.



At San Juan College in Farmington, New Mexico, Johnson Controls provided a PV array, solar thermal floor heating, a geothermal heat pump, controls, and a monitoring system. The monitoring system was used for student instruction in the outdoor learning laboratory. The building received LEED Gold Certification.

Wind Power

Johnson Controls has experience with implementing power generating wind turbines.

At the Bureau of Land Management Field Office in Rawlins, Wyoming, we installed a new 120-foot wind turbine rated at 100 kW with an estimated output of 300,000 kW hours per year.

Johnson Controls provided a turnkey installation of a 100kW wind turbine for the Rawlins Field Office. Manufactured by Vermont based Northern Power Systems, the Northwind 100 wind turbine will replace the existing 20kW turbine with a high reliability direct drive (gearless) design.

An excellent wind resource exists at the site, and the Northwind 100 is expected to produce over 300,000 kWh per year (approximately 60% of the annual energy needs of the Rawlins Field Office).



Alternative Energy Powered Heating and Cooling

Ground-source geothermal heat pump system can provide a "green" solution to heating and cooling challenges, offset capital HVAC costs, and address lack of redundancy.

A geothermal system provides heat in the winter by tapping into the earth to capture its renewable energy. It provides cooling in the summer by removing heat from the home and placing it in the cooler earth.



At the Claremore Campus Rogers University we provided a 416 tons mono-loop central geothermal system.

Lighting for Street and Parking Lights

Johnson Controls brings the capabilities of **90 dedicated lighting professionals**, including six **NCQLP** certified lighting designers, who bring hundreds of years of experience designing and implementing lighting projects. As the largest non-OEM lighting retrofit contractor in the U.S. with more than **250,000 fixture replacements/retrofits each year**, we are at the forefront of new lighting technologies.

We can develop intelligent, adaptable and future ready designs so additional systems for parking management, traffic control, cameras/safety, digital signage and water/climate detection can easily be added. We also have an in-house material procurement team to get you the absolute best material pricing without additional layers of mark up.

Effective street lighting design and selection focused on extending lifecycles and reducing O&M costs requires specialized expertise. Johnson Controls brings the capabilities of in-house lighting experts, Johnson Controls Lighting Services, as well as specialized modeling, mapping and project management tools to keep you up to date on the project's progress. In all, we have worked with numerous municipalities across the country on similar street lighting design and technology selection projects, retrofitting or replacing more than 250,000 fixtures each year.



At the City of Binghamton, NY, we reviewed all municipal lighting, including GPS mapping of all lights, and an analysis to determine energy savings. We also used a pilot program in three locations to provide data before full installation. Energy and maintenance savings from this effort will offset project costs paid for through the City's capital bond.

Reduced Associated Carbon Footprint

Johnson Controls' lighting experts will help you select the right solution to significantly reduce the carbon footprint of your street or parking lights. As a leader in local government solutions, we can also expand this effort to your facilities. We can not only deliver this effort, but serve as your long-term energy partner, providing you with a comprehensive, holistic city-wide approach to carbon management and energy efficiency.

Reduce Costs Associated With Street Lighting Operations

We develop detailed and individualized maintenance programs in conjunction with clients and in coordination with your staff to achieve your organizational, operational, and financial goals. We are vendor neutral, focused only on getting the best technology option at the best price for the customer.

Reduce Light Pollution Associated With Street Lighting

Johnson Controls knows how to design optimal street lighting projects using photometrics that maximize safety and minimize light pollution, having implemented several dark sky compliant projects nationwide. In Hawaii, we effectively worked with State and community representatives to create a regulation-compliant design for 21,000 street lights that also had community input and acceptance.

Experience with Street Light Infrastructure Acquisition from Utilities

Johnson Controls has demonstrated experience and a proven process for working with municipalities and utility companies on street light acquisition. We worked closely with NYSEG on our street light project with the City of Binghamton, as well as with utilities across New York and Pennsylvania as part of numerous other municipal street lighting acquisition projects.

Experience Developing and Implementing Street Lighting Projects

We have worked with numerous municipalities across the country on street lighting design and technology selection projects, having recently installed 70,000 LED street lights. Our dedicated product testing and technology vetting group is continually testing new products and we only recommend those that have achieved approval through a technical, financial and commercial risk review for use in a long-term performance contract. We also test proven technologies to ensure they perform for cities over the equipment life cycle, and use GIS mapping to expedite the street light inventory process.

Pumping Systems

We have experience with HVAC, indoor air quality, chlorine management, chemical detection and measurement, lighting, locker room water improvements and related equipment in pool and recreational facilities. Our experience includes the implementation of several improvement measures such as swimming pool de-humidification systems and gymnasium ventilation improvements.



Meeting Your Dark Sky Goals

We have met similar dark sky requirements on our work with the Hawaii DOT. We accompanied State Highways representatives to meet with the Starlight Committee, the local dark sky organization, to discuss dark sky and other observatory needs. We were able to effectively work with State and community representatives to create not only a regulation-compliant design that also has community input and acceptance.

Microgrid

With our strong background in designing and building renewable applications, Johnson Controls develops or participates in many microgrid implementations.

For example, at **Isle Royale National Park** Johnson Controls installed Distributed Generation and Control Systems to operate as a remote microgrid. This project included three separate locations up to 40 miles apart from one another, including Mott Island, Windigo, and Rock Harbor.

Johnson Controls installed 23 solar thermal domestic hot water pre-heating systems including 61 collection panels across various facilities at the Rock Harbor and Windigo campuses. The solar thermal systems provide approximately 78% of the estimated annual energy required for domestic hot water at Windigo.

At the Rock Harbor site, the systems displace 87% of the estimated annual electricity use and 45.7% of estimated fuel oil use for domestic hot water. They conducted energy efficient lighting upgrades, and installed solar PV hybrid system, solar attic fans, and water conservation system.

The project will alleviate dependence on diesel and showcase the island as a model of sustainability for other Government agencies to follow. The total facility size for Phase 1 is 66,931 square feet. This will result in 2,724 million Btus saved annually and 19,000-gallon reduction in annual diesel fuel consumption.

“Johnson Controls was the most qualified ESCO to assist Isle Royale with our savings goals. Their ECM options are innovative and their strong local resources are unmatched. The Johnson Controls Team understands our objectives and is committed to building a relationship with us.”

Phyllis Green
Isle Royale Superintendent

Energy Storage

Batteries are a core business for Johnson Controls. We have 100+ years of experience delivering batteries that meet our customers’ evolving needs. We’re the world’s largest supplier of vehicle batteries, producing one-third of the industry’s total output every year. Our distributed energy storage systems include cell-level monitoring and control, as well as smart algorithms that promote long-term cell life.

The Stationary Energy Storage team helps customers realize savings through energy storage and peak shaving. They engineer, develop, manufacture, and sell stationary energy storage solutions that use smart technology to reduce energy costs by decreasing electric demand charges.

Johnson Controls provides the most efficient and reliable energy storage system for enabling grid optimization and renewable energy integration. The strength of our offering comes from the combination of our advanced Li-Ion battery technologies and our many decades of experience as a pioneer in the development of energy control systems.

Energy storage is the process of collecting and preserving energy for on-demand use and is accomplished through the introduction and use of devices or physical media that store energy to perform useful processes at a later time.



With this solution, Johnson Controls employs world-class battery technology, building systems expertise, and intelligent controls to facilitate energy storage at the lowest lifecycle cost. Johnson Controls' energy storage solutions include:

- Battery Power Stationary Storage
- Solar PV
- Thermal Energy Storage Systems
- Ice Storage
- Microgrids

By combining advanced energy technology with in-depth building knowledge, Johnson Controls provides clients with holistic energy storage solutions that work best based on specific application needs and requirements, in front of or behind the meter. Because each client's needs vary greatly, Johnson Controls' energy storage solutions have been designed with scalability in mind.

Battery Power Stationary Storage

Stationary Storage has improved to the point where customers are seeing significant economic benefit from employing battery systems to provide a hedge against spiking demand charges. Our stationary battery systems store excess energy when the power-generating systems are running, and provide power when the power-generating systems are offline.

Energy Storage System - In-Building

In-building distributed energy storage systems help to manage energy use, cut costs, and provide backup power for single buildings as well as entire campuses or enterprises.

Modular Container Distributed Energy Storage System

This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants. The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost.

Thermal Energy Storage Systems

Thermal Energy Storage systems reduce on-peak electrical demand and energy costs. With adequate access to unobstructed sunlight, solar thermal energy can be created by absorbing the sun's heat with devices such as flat-plate solar energy collectors. A heat transfer fluid passes through tubes within the solar collectors where it is warmed and then distributed to the heating system.



Ice Storage

Ice storage air conditioning is the process of using ice for thermal energy storage. This system provides efficient cooling during the day by circulating refrigerant through coils in its ice storage tank, eliminating the need to run an energy-intensive compressor during peak daytime hours. The system re-freezes ice each night when electricity generation is cleaner, more efficient, and less expensive.



L1000 In-Building Energy Storage System



Waste Heat Recovery and Urban Biogas Utilization

Many of our projects make use of waste heat recovery technology. For the **City of Baltimore Back River WWTP**, Johnson Controls developed a combined heat and power plant that uses the remainders of treated wastewater as fuel.

The plant will generate more than 2.4 megawatts of electricity per year, provide steam to offset process-heating requirements and produce hot water for boilers. As an added benefit, the digester gas cogeneration plant will reduce emissions, save taxpayer dollars, address workforce development, and support the local economy.



Johnson Controls also designed and constructed a 1,000 kW ground-mount PV system located at the Back River Waste Water Treatment Plant. Using SolarWorld modules and leveraging a grant from the Maryland Energy Administration, this project supports the City's objectives toward self-generation of 30% of all energy. This is a fixed-tilt, custom racking system suitable for the site's topography.



At the **City of Fort Worth**, Johnson Controls began an energy efficiency partnership in 2003 that has grown to seven phases of major infrastructure improvements in 107 city-owned facilities. The \$69 million investment will save the City \$93 million over a 15-year period. Johnson Controls guarantees these savings under the Energy Savings Performance Contract (ESPC) funding vehicle authorized by the State of Texas for public entities.

The largest of the seven projects occurred at the **Village Creek Water Reclamation Plant** – a \$35 million initiative that has significantly benefitted the City's goal to establish Village Creek as a Net Zero Energy Facility. This ESPC project reduced electrical consumption by 39%, which has taken more than \$2.5 million off the plant's electric bills each year. In addition, Oncor Electric provided \$1.3 million in rebates to the City due to electric demand reductions.

For this project, Johnson Controls developed and implemented a 50,000 lb/hour, 235-psig steam system. Heat was recovered from combustion turbine exhaust, and supplemented with heat created by burning biogas produced at the wastewater treatment plant in a duct burner. This project also involved improvements to increase the production of biogas through the addition of high-strength waste to the digesting bio solids.

Sewer Heat Recovery

Johnson Controls also has experience providing sewer heat recovery solutions. At the **Beaufort-Jasper Water & Sewer Authority** in South Carolina, Johnson Controls used finished water (i.e. potable or drinking water) as a heat sink via a plate and frame heat exchanger for controlling the environment within their administrative building.

This concept is similar to a Geothermal HVAC. By using reversible heat pump chillers to meet their heating/cooling needs, Johnson Controls was able to provide both heating and cooling for water source heat pumps in the older building section as well as newer VAV/Air Handling system in the newer part of the facility. This project qualified for local utility incentives of approximately \$132,000 and had an annual expected energy savings of approximately \$48,000 per year.

Renewable Energy Services

Every renewable energy project requires a process that includes:

- Onsite evaluation of energy consumption
- Return on investment analysis
- Consultation and recommendations
- Custom system design

We have performed this process for over 3,100 projects through our performance contracting. Each assessment considers the needs of the customer and project stakeholders, which can include a board of directors, local government departments, or the general public.

The Johnson Controls strategic planning process enables our customers to clearly identify their facility and operational strengths and weaknesses before construction begins. This allows facility and construction changes to focus on and address outlined deficiencies. Having these groups involved up-front in the process directly influences the final issues addressed in the construction phase. Some specific examples include the following:

- **Bagley School District** chose to add additional classrooms due to growing enrollment and feedback from community, teachers and staff.
- **Warren-Alvarado-Oslo School District** chose to engage in a more involved re-purpose of their elementary school classroom spaces, as well as mechanical upgrade, due to feedback from teachers and staff.
- **Thief River Falls School District** reviewed their math series as a result of feedback given by their student stakeholders.
- **Duluth School District** chose to add/revise the circulation path and design intent, based on specific feedback from students, teachers and staff.

Throughout our decades of experience in the energy efficiency industry, Johnson Controls has developed a four-phased approach to maximizing energy efficiency for our clients. The phases are: Preliminary Assessment, Project Development, Project Implementation, and Performance Period. The services outlined in the RFP occur during the first two phases of our process.

Onsite Evaluation of Energy Consumption

During the Preliminary Assessment phase of the project, Johnson Controls assesses the energy consumption at the site by interviewing the customer and surveying the utility bill history of the facility.

For projects with substantial technical and financial risk, this process helps mitigate the risks to the overall program by allowing the proponent and customer to avoid excessive investment of time or money early in the project when options are still being evaluated.

Johnson Controls employs a Life-cycle evaluation strategy when making long-term facility decisions. Studies have shown that first-cost centered evaluations often result in long-term cost problems, because much of the cost of building, operating, and maintaining the project falls outside of the initial first cost.

During the Project Development phase of the project, Johnson Controls conducts in-depth assessments of the facilities, which includes baseline development and a technical and economic feasibility analysis. We deploy data loggers to measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible.

Return on Investment Analysis

During the Project Development phase of the project, Johnson Controls develops a baseline, performs a technical and economic feasibility analysis, and performs a cost analysis of each improvement. We deploy data loggers to

measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible. This information help determine the potential return on investment.

Consultation and Consultation for the Right Decision

During the second phase of the project, we work closely with the project stakeholders at every major milestone to ensure the customer is aware of the project status and approve any major decision before we move forward. These meetings take place to decide on pricing, cash flow, selection of equipment, selection of subcontractors, determination of the project baseline methodology, and any other major decision.

During this phase, we meet with maintenance staff to assess the current equipment and get an understanding of the control metrics in place. We also gather existing schedules to determine how the customer uses their equipment and controls. This information helps us calculate a baseline. Working closely with customer staff, we use this phase to set an implementation timeline that fits the customer’s schedule. We understand that your facilities cannot shut down for maintenance or installation work.

Our in-house experts from all phases of the project (business and project development, engineering, commissioning, construction, operations and maintenance, as well as measurement and verification) are involved throughout the process to ensure continuity.

When designing our solutions, we consider the long-term impact (optimal learning conditions, safety, first cost, equipment selection, operational cost, energy savings, and reliability) that a specific FIM will have on facilities, staff, and students. In an education environment, the impact to safety and the learning environment is equally important. In all cases, we prioritize our work around our customer’s needs and their budget.

We present final designs and detailed project schedules for review and collaboratively determine final selection of improvements for the project.

Custom Designed System

Each system we implement is custom designed for your facility. The assessments we perform and meetings we hold all provide information to the design team. This level of information helps the design engineers create the most effective system with your budget.

Past Experience with TIPS

Johnson Controls has responded to two previous TIPS RFQs and have performed dozens of projects for TIPS member entities through the system. Since 2013, we have completed or are currently performing work through various TIPS contracts at the following locations.

TIPS Member Entities	Project Year	TIPS Member Entities	Project Year
Brownsville Public Utilities Board <i>(1 project)</i>	2017	Leander Independent School District <i>(1 project)</i>	2017
Texas State Technical Colleges – All Campuses <i>(1 project)</i>	2017	Texas State Technical College – Marshall <i>(1 project)</i>	2016
Alamo Community College District <i>(4 projects)</i>	2017	New Caney Independent School District <i>(1 project)</i>	2016
Lake Worth Independent School District <i>(4 projects)</i>	2017	Deer Park Independent School District <i>(2 projects)</i>	2016

Del Mar College District (1 project)	2017	Education Service Center Region XVII (1 project)	2016
Alief Independent School District (10 projects)	2017	Katy Independent School District (47 projects)	2016
Columbia-Brazoria ISD (6 projects)	2017	Dallas County Community College (4 projects)	2015-2016
Harlingen TX (City Of) (1 project)	2017	Pulaski Technical College (PTC) (3 projects)	2014-2016
Mesquite ISD (1 project)	2017	University of Texas – Tyler (1 project)	2014-2016
Texas State University (12 projects)	2017-2018	Stephen F. Austin State University (4 projects)	2013-2016
Texas Southmost College (1 project)	2017		

Conflicts of Interest

Johnson Controls is not aware of any relationships that might be considered a conflict of interest when doing business with Members in the TIPS program.

Deviations of Terms

In the Attributes section of the TIPS bid system, we have noted the following deviations.

#75 Acts or Omissions

JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.

#83 Agreement Deviation/Compliance

In the **PRICING** section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls Fire and Security domain only.

In the **INDEMNITY** section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to

the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

The Interlocal Purchasing System (TIPS Cooperative) Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Rick Powell General Counsel/Procurement Compliance Officer	Address	Region VIII Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686	Address
Email	rick.powell@tips-usa.com	Contact	Kristie Collins, Contracts Compliance Specialist	Contact
Phone	(903) 575-2689	Department		Department Building
Fax		Floor/Room		Floor/Room Telephone
Bid Number	180203	Telephone	+1 (866) 839-8477	Fax
Title	Renewable Energy and Solar Solutions and Services (2 PART)	Fax	+1 (866) 839-8472	Email
Bid Type	RFP	Email	bids@tips-usa.com	
Issue Date	2/1/2018 08:02 AM (CT)			
Close Date	3/16/2018 03:00:00 PM (CT)			

Supplier Information

Company Johnson Controls, Inc.
 Address 10600 Colonel Glenn Road
 Suite 200
 Little Rock, AR 72204
 Contact
 Department
 Building
 Floor/Room
 Telephone (866) 630-6791
 Fax
 Email
 Submitted 3/16/2018 09:11:25 AM (CT)
 Total \$0.00

By submitting your response, you certify that you are authorized to represent and bind your company.

Signature Andrew Pergande

Email Andrew.Pergande@jci.com

Supplier Notes

Bid Notes

This is a two part solicitation for 180203 Renewable Energy and Solar Solutions and Services. Part 1 is for equipment and services including installations that are not considered a public work and Part 2 is for installation services that are public work construction related projects, such as, but not limited to, electrical or plumbing requiring engineering.

Bid Activities

Bid Messages

Bid Attributes

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the "Response Attachments" D/M/WBE CERTIFICATES section.	No
2	Yes - No	Historically Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB as defined by the State of Texas at https://comptroller.texas.gov/purchasing/vendor/hub/ or in a HUBZone as defined by the US Small Business Administration at https://www.sba.gov/offices/headquarters/ohp Proof of one or both may be submitted. Vendor must upload proof of certification to the "Response Attachments" HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	Yes
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	We provide services in all 50 states.
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	Johnson Controls delivers products, services and solutions that increase energy efficiency and lower 'operating costs in buildings for more than one million customers. Operating from 500 branch offices in more than 150 countries, we are a leading provider of renewable technologies, equipment, controls, and services for heating, ventilating, air-conditioning, refrigeration and security systems. We have been involved in more than 500 renewable energy projects including solar, wind and geothermal technologies. Our solutions have reduced carbon dioxide emissions by 16 million metric tons and generated savings of \$7.5 billion since 2000. For additional information, please visit www.johnsoncontrols.com .
6	Primary Contact Name	Primary Contact Name	Andrew Pergande
7	Primary Contact Title	Primary Contact Title	Group Purchasing Organization Manager
8	Primary Contact Email	Primary Contact Email	Andrew.Pergande@jci.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937

10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-708-6722
12	Secondary Contact Name	Secondary Contact Name	Thomas Staves
13	Secondary Contact Title	Secondary Contact Title	Sales Manager
14	Secondary Contact Email	Secondary Contact Email	thomas.staves@jci.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-443-676-8813
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Andrew Pergande
19	Admin Fee Contact Email	Admin Fee Contact Email	Andrew.Pergande@jci.com
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Andrew Pergande
22	Purchase Order Contact Email	Purchase Order Contact Email	Andrew.Pergande@jci.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
24	Company Website	Company Website (Format - www.company.com)	www.johnsoncontrols.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	39-0380010
26	Primary Address	Primary Address	5757 North Green Bay Avenue P. O. Box 591
27	Primary Address City	Primary Address City	Milwaukee
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	Wisconsin
29	Primary Address Zip	Primary Address Zip	53202
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	renewable energy, solar, solar photovoltaic, solar panel, microgrid, wind turbine, energy storage, geothermal heat pump, solar daylighting, biomass plant, solar thermal pool heating, solar thermal domestic water heating, solar transpired walls, battery power stationary storage, solar PV, thermal energy storage systems, ice storage, sewer heat recovery, waste heat recovery, biogas, wind power, solar power

31	Yes - No	Most of our members receive Federal Government grants and they make up a significant portion of their budgets. The members need to know if your company is willing to sell to them when they spend federal budget funds on their purchase. There are attributes that follow that are provisions from the federal regulations in 2 CFR part 200. Your answers will determine if your award will be designated as Federal or Education Department General Administrative Regulations (EDGAR)compliant. Is it your intent to be able to sell to our members regardless of the fund source, whether it be local, state or federal?	Yes
32	Yes - No	Certification of Residency (Required by the State of Texas) The vendor's ultimate parent company or majority owner: (A) has its principal place of business in Texas; OR (B) employs at least 500 persons in Texas?	Yes
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Milwaukee
34	Company Residence (State)	Vendor's principal place of business is in the state of?	Wisconsin
35	Felony Conviction Notice:	(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37) Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice: State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district or ESC 8/TIPS must give advance notice to the district or ESC 8/TIPS if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	Yes
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony?	No
38	If your firm is owned or operated by the following individual(s) who has/have been convicted of a felony:	Please provide details of the conviction. This is not necessarily a disqualifying factor and the details of the conviction determines the eligibility. Providing false or misleading information about the conviction is illegal.	N/A
39	Pricing Information:	Pricing information section. (Questions 39 - 43)	(No Response Required)

40	Discount Offered	What is the MINIMUM percentage discount off of any item or service you offer to TIPS Members that is in your regular catalog (as defined in the RFP document), website, store or shelf pricing? This is a ceiling on your pricing and not a floor because, in order to be more competitive in the individual circumstance, you may offer a larger discount depending on the items or services purchased and the quantity at time of sale. Must answer with a number between 0% and 100%.	5%
41	TIPS administration fee	By submitting a proposal, I agree that all pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing and shall be remitted to TIPS by the Vendor as agreed in the Vendor agreement. I agree that the fee shall not and will not be added by the vendor as a separate line item on a TIPS member invoice, quote, proposal or any other written communications with the TIPS member.	(No Response Required)
42	Yes - No	Vendor agrees to remit to TIPS the required administration fee? TIPS/ESC Region 8 is required by Texas Government Code § 791 to be compensated for its work and thus, failure to agree shall render your response void and it will not be considered.	Yes
43	Yes - No	Do you offer additional discounts to TIPS members for large order quantities or large scope of work?	No
44	Start Time	Average start time after receipt of customer order is ____ working days?	15
45	Years Experience	Company years experience in this category?	117
46	Resellers:	Does the vendor have resellers that it will name under this contract? Resellers are defined as other companies that sell your products under an agreement with you, the awarded vendor of TIPS. EXAMPLE: Walmart is a reseller of Samsung Electronics. If Samsung were a TIPS awarded vendor, then Samsung would list Walmart as a reseller. (If applicable, vendor should download the Reseller/Dealers spreadsheet from the Attachments section, fill out the form and submit the document in the "Response Attachments" RESELLERS section.	No
47	Prices are guaranteed for?	Vendor agrees to honor the pricing discount off regular catalog (as defined in the RFP document), website, store or shelf pricing for the term of the award?	YES
48	Right of Refusal	Does the proposing vendor wish to reserve the right not to perform under the awarded agreement with a TIPS member at vendor's discretion?	Yes

49 NON-COLLUSIVE BIDDING CERTIFICATE

By submission of this bid or proposal, the Bidder certifies that: (No Response Required)

- 1) This bid or proposal has been independently arrived at without collusion with any other Bidder or with any Competitor;
- 2) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other Bidder, Competitor or potential competitor;
- 3) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal;
- 4) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the Bidder as well as to the person signing in its behalf. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.

50 Texas HB 89- Texas Government code §2270 compliance

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq. YES

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I verify by my "YES" response to this attribute that, as a company submitting a proposal to this solicitation, that I am authorized to respond for the company and affirm that the company (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that TIPS will be notified in writing by email to TIPS@TIPS-USA.com within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall result in a "no award" determination by TIPS and if a contract exists with TIPS, be grounds for immediate contract termination without penalty to TIPS and Education Service Center Region 8.

FAILURE TO RESPOND "YES" WILL RESULT IN NO CONSIDERATION OF YOUR PROPOSAL.

I swear and affirm that the above is true and correct by a "YES" response.

- 51 CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ If you have a conflict of interest as described in this form or the Local Government Code Chapter 176, cited therein- you are required to complete and file with TIPS, Richard Powell, 4845 US Highway 271 North, Pittsburg, Texas 75686 No
- You may find the Blank CIQ form on our website at:
- Copy and Paste the following link into a new browser or tab:
<https://www.tips-usa.com/assets/documents/docs/CIQ.pdf>
- Do you have any conflicts under this statutory requirement?
- 52 Filing of Form CIQ If yes (above), have you filed a form CIQ as directed here?
- 53 Regulatory Standing I certify to TIPS for the proposal attached that my company is in good standing with all governmental agencies Federal or state that regulate any part of our business operations. If not, please explain in the next attribute question. Yes
- 54 Regulatory Standing Regulatory Standing explanation of no answer on previous question. N/A
- 55 Antitrust Certification Statements (Tex. Government Code § 2155.005) By submission of this bid or proposal, the Bidder certifies that:
- I affirm under penalty of perjury of the laws of the State of Texas that:
- (1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
 - (2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
 - (3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law;
 - (4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.
- (No Response Required)

Instructions for Certification:

1. By agreeing to the Attribute question #56, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this

transaction originated may pursue available remedies, including suspension and / or debarment.

57 Suspension or Debarment Certification

Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

By submitting this offer and certifying this section, this bidder:
Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract as described above.

58 Non-Discrimination Statement and Certification

In accordance with Federal civil rights law, all U.S. Departments, including the U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. (Title VI of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title 7 CFR Parts 15, 15a, and 15b; the Americans with Disabilities Act; and FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities) All U.S. Departments, including the USDA are equal opportunity provider, employer, and lender.

Not a negotiable term. Failure to agree will render your

proposal non-responsive and it will not be considered. I certify that in the performance of a contract with TIPS or its members, that our company will conform to the foregoing anti-discrimination statement and comply with the cited and all other applicable laws and regulations.

59 2 CFR PART 200 Contract Provisions Explanation

Required Federal contract provisions of Federal Regulations for Contracts for contracts with ESC Region 8 and TIPS Members:

(No Response Required)

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The ESC Region 8 and TIPS Members are the subgrantee or Subrecipient by definition. Most of the provisions are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200. Others are included within 2 CFR part 200 et al.

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

60 2 CFR PART 200 Contracts

Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.
Does vendor agree?

Yes

61 2 CFR PART 200 Termination

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

Yes

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.
Does vendor agree?

62	2 CFR PART 200 Clean Air Act	<p>Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p> <p>Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.</p> <p>Does vendor agree?</p>	Yes
63	2 CFR PART 200 Byrd Anti-Lobbying Amendment	<p>Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies to the terms included or referenced herein.</p> <p>Does vendor agree?</p>	Yes
64	2 CFR PART 200 Federal Rule	<p>Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$100,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).</p> <p>Does vendor certify that it is in compliance with the Clean Air Act?</p>	Yes

65	2 CFR PART 200 Procurement of Recovered Materials	<p>A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with</p> <p>maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.</p> <p>Does vendor certify that it is in compliance with the Solid Waste Disposal Act as described above?</p>	Yes
66	Indemnification	<p>The ESC Region 8 and TIPS is a Texas Political Subdivision and a local governmental entity; therefore, is prohibited from</p> <p>indemnifying third parties pursuant to the Texas Constitution (Article 3, Section 52) except as specifically provided by law or as</p> <p>ordered by a court of competent jurisdiction. A provision in a contract to indemnify or hold a party harmless is a promise to pay for</p> <p>any expenses the indemnified party incurs, if a specified event occurs, such as breaching the terms of the contract or negligently</p> <p>performing duties under the contract. Article III, Section 49 of the Texas Constitution states that "no debt shall be created by or on</p> <p>behalf of the State ... " The Attorney General has counseled that a contractually imposed obligation of indemnity creates a "debt" in</p> <p>the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Contract clauses which require the System or institutions to</p> <p>indemnify must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas." Liquidated</p> <p>damages, attorney's fees, waiver of vendor's liability, and waiver of statutes of limitations clauses should also be deleted or qualified</p> <p>with "to the extent permitted by the Constitution and laws of State of Texas."</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree</p> <p>to these terms?</p>	Yes

67 Remedies The parties shall be entitled to exercise any right or remedy available to it either at law or in equity, subject to the choice of law, venue and service of process clauses limitations agreed herein. Nothing in this agreement shall commit the TIPS to an arbitration resolution of any disagreement under any circumstances. Any Claim arising out of or related to the Contract, except for those specifically waived under the terms of the Contract, may, after denial of the Board of Directors, be subject to mediation at the request of either party. Any issues not resolved hereunder must be referred to non-binding mediation to be conducted by a mutually agreed upon mediator as a prerequisite to the filing of any lawsuit over such issue(s). The parties shall share the mediator's fee and any associated filing fee equally. Mediation shall be held in Camp or Titus County, Texas. Agreements reached in mediation shall be reduced to writing, and will be subject to the approval by the District's Board of Directors, signed by the Parties if approved by the Board of Directors, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Texas. Do you agree to these terms? Yes, I Agree

68 Remedies Explanation of No Answer

69 Choice of Law This agreement and any addenda or other additions and all contracts or awards resulting from this procurement process, however described, shall be governed by, construed and enforced in accordance with the laws of the State of Texas, regardless of any conflict of laws principles. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms? Yes

70 Jurisdiction and Service of Process Any Proceeding arising out of or relating to this procurement process or any contract issued by TIPS resulting from or any contemplated transaction shall be brought in a court of competent jurisdiction in Camp County, Texas and each of the parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the Proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction in any other court. The parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the parties irrevocably to waive any objections to venue or to convenience of forum. Process in any Proceeding referred to in the first sentence of this Section may be served on any party anywhere in the world. Venue clauses in contracts with TIPS members may be determined by the parties. Yes

Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?

71	Alternative Dispute Resolution	Prior to filing of litigation, the parties may select non-binding mediation as a method of conflict resolution for issues arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction. The parties agree that if nonbinding mediation is chosen as a resolution process, the parties must agree to the chosen mediator(s) and that all mediation venue shall be at a location in Camp or Titus, County, Texas agreed by the parties. The parties agree to share equally the cost of the mediation process and venue cost. Do you agree to these terms?	Yes, I Agree
72	Alternative Dispute Resolution Explanation of No Answer		
73	Infringement(s)	The successful vendor will be expected to indemnify and hold harmless the TIPS and its employees, officers, agents, representatives, contractors, assignees and designees from any and all third party claims and judgments involving infringement of patent, copyright, trade secrets, trade or service marks, and any other intellectual or intangible property rights attributed to or claims based on the Vendor's proposal or Vendor's performance of contracts awarded and approved. Do you agree to these terms?	Yes, I Agree
74	Infringement(s) Explanation of No Answer		
75	Acts or Omissions	The successful vendor will be expected to indemnify and hold harmless the TIPS, its officers, employees, agents, representatives, contractors, assignees and designees from and against any and all liability, actions, claims, demands or suits, and all related costs, attorney's fees and expenses arising out of, or resulting from any acts or omissions of the vendor or its agents, employees, subcontractors, or suppliers in the execution or performance of any agreements ultimately made by TIPS and the vendor. Do you agree to these terms?	No
76	Acts or Omissions Explanation of No Answer		JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.
77	Contract Governance	Any contract made or entered into by the TIPS is subject to and is to be governed by Section 271.151 et seq, Tex Loc Gov't Code. Otherwise, TIPS does not waive its governmental immunities from suit or liability except to the extent expressly waived by other applicable laws in clear and unambiguous language.	Yes

78 Payment Terms and Funding Out Clause

Payment Terms:
TIPS or TIPS members shall not be liable for interest or late payment fees on past due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Yes

Funding Out Clause:
Vendor agrees to abide by the laws and regulations, including Texas Local Government Code § 271.903, or any statutory or regulatory limitations of the jurisdiction of any TIPS Member which governs contracts entered into by the Vendor and TIPS or a TIPS Member that requires all contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.
See statute(s) for specifics or consult your legal counsel. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.
Do you agree to these terms?

79 Insurance and Fingerprint Requirements Information

Insurance
If applicable and your staff will be on TIPS member premises for delivery, training or installation etc. and/or with an automobile, you must carry automobile insurance as required by law. You may be asked to provide proof of insurance.

Fingerprint
It is possible that a vendor may be subject to Chapter 22 of the Texas Education Code. The Texas Education Code, Chapter 22, Section 22.0834. Statutory language may be found at: <http://www.statutes.legis.state.tx.us/>
If the vendor has staff that meet both of these criterion:
(1) will have continuing duties related to the contracted services; and
(2) has or will have direct contact with students
Then you have "covered" employees for purposes of completing the attached form.
TIPS recommends all vendors consult their legal counsel for guidance in compliance with this law. If you have questions on how to comply, see below. If you have questions on compliance with this code section, contact the Texas Department of Public Safety Non-Criminal Justice Unit, Access and Dissemination Bureau, FAST-FACT at NCJU@txdps.state.tx.us and you should send an email identifying you as a contractor to a Texas Independent School District or ESC Region 8 and TIPS. Texas DPS phone number is (512) 424-2474.
See form in the next attribute to complete entitled: Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

(No Response Required)

80 Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

Introduction: Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district.

Definitions: Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students. Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school:

(a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

I certify that:

NONE (Section A) of the employees of Contractor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

OR

SOME (Section B) or all of the employees of Contractor and any subcontractor are covered employees. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.

(3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees.

(4) If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

81 Solicitation Deviation/Compliance

Does the vendor agree with the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation? Yes

82 Solicitation Exceptions/Deviations Explanation

If the bidder intends to deviate from the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation, all such deviations must be listed on this attribute, with complete and detailed conditions and information included or attached.

TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any bid based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Standard Terms and Conditions, Item Specifications, and all other information contained in this Solicitation.

83 Agreement Deviation/Compliance

Does the vendor agree with the language in the Vendor Agreement? No

If the proposing Vendor desires to deviate from the Vendor Agreement language, all such deviations must be listed on this attribute, with complete and detailed conditions and information included. TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any proposal based upon any deviations indicated below. In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Vendor Agreement.

In the PRICING section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls HVAC domain only.

In the INDEMNITY section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

85 Texas Business and Commerce Code § 272
Requirements as of 9-1-2017

SB 807 prohibits construction contracts to have provisions requiring the contract to be subject to the laws of another state, to be required to litigate the contract in another state, or to require arbitration in another state. A contract with such provisions is voidable. Under this new statute, a "construction contract" includes contracts, subcontracts, or agreements with (among others) architects, engineers, contractors, construction managers, equipment lessors, or materials suppliers. "Construction contracts" are for the design, construction, alteration, renovation, remodeling, or repair of any building or improvement to real property, or for furnishing materials or equipment for the project. The term also includes moving, demolition, or excavation. BY RESPONDING TO THIS SOLICITATION, AND WHEN APPLICABLE, THE PROPOSER AGREES TO COMPLY WITH THE TEXAS BUSINESS AND COMMERCE CODE § 272 WHEN EXECUTING CONTRACTS WITH TIPS MEMBERS THAT ARE TEXAS GOVERNMENT ENTITIES. (No Response Required)

Line Items

Response Total: \$0.00

REFERENCES

Please provide three (3) references, preferably from school districts or other governmental entities who have used your services within the last three years. Additional references may be required. DO NOT INCLUDE TIPS EMPLOYEES AS A REFERENCE.

You may provide more than three (3) references.

Entity Name	Contact Person	Email	Phone
San Joaquin County Office of Education	Mr. Ronald Estes, Division Director, Operations and Support Services	restes@sjcoe.net	209-468-9061
Mount Wachusett Community College	Bill Swift, Director of Maintenance and Mechanical Systems	W_Swift@mwcc.mass.edu	978-630-9267
Case Western Reserve University	Chris Wilson, Director of Facilities	ckw39@case.edu	216-368-5093

Certification Regarding Lobbying

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds.

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Johnson Controls, Inc.

5757 North Green Bay Ave., P.O. Box 591, Milwaukee, WI 53201

Name/Address of Organization

Brandon Jackson, Vice President of Branch Sales

Name/Title of Submitting Official

Signature

3/9/2018

Date

FELONY CONVICTION NOTICE

FOR RESPONSE TO TIPS SOLICITATION

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice:

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

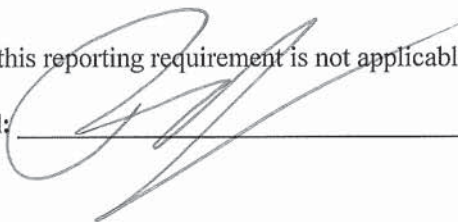
THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION

Complete only one of the three below: A or B or C.

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Official: Brandon Jackson
Print Authorized Company Official's Name

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

Signature of Authorized Company Official:  _____

OR

B. My firm is not owned nor operated by anyone who has been convicted of a felony:

Signature of Authorized Company Official: _____

OR

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): _____

Details of Conviction(s): _____

You may attach another sheet

Signature of Authorized Company Official: _____

CERTIFICATION BY CORPORATE OFFERER

IF OFFERER IS A CORPORATION,
THE FOLLOWING CERTIFICATE SHOULD BE EXECUTED AND INCLUDED AS PART OF
PROPOSAL FORM/PROPOSAL FORM.

OFFERER: Johnson Controls, Inc.
(Name of Corporation)

I, Michael R. Peterson certify that I am the ^{Assistant} Secretary of the Corporation
(Name of Corporate Secretary)


named as OFFERER herein above; that

Brandon Jackson
(Name of person who completed proposal document)

who signed the foregoing proposal on behalf of the corporation offerer is the authorized person that is acting as

Vice President of Branch Sales
(Title/Position of person signing proposal/offer document within the corporation)

of the said Corporation; that said proposal/offer was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.



CORPORATE SEAL if available



SIGNATURE

March 13, 2018
DATE

Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

The Education Service Center Region 8 and TIPS Members anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

1. Will you be subcontracting any of your work under this award if you are successful? (Circle one)

YES or NO

2. If yes, do you agree to comply with the following federal requirements? (Circle one)

YES or NO

2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

Texas Government Code 2270 Verification Form

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq.

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I, Brandon Jackson as an authorized representative of
Johnson Controls, Inc., a contractor/vendor
Insert Name of Company

engaged by

ESC Region 8/The Interlocal Purchasing System (TIPS)
4845 Highway 271 North
Pittsburg, TX, 75686

verify by this writing that the above-named company affirms that it (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that the above-named Texas governmental entity will be notified in writing within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall be grounds for immediate contract termination without penalty to the above-named Texas governmental entity.

AND

our company is not listed on and we do not do business with companies that are on the the Texas Comptroller of Public Accounts list of Designated Foreign Terrorists Organizations per Texas Gov't Code 2270.0153 found at <https://comptroller.texas.gov/purchasing/docs/foreign-terrorist.pdf>

I swear and affirm that the above is true and correct.


Signature of Named Authorized Company Representative

3/9/2018

Date

**Required Federal contract provisions of Federal Regulations for Construction Contracts
for contracts with TIPS OR TIPS MEMBERS**

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The TIPS OR TIPS MEMBERS is the subgrantee or Subrecipient by definition. The Rules are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (D) above, when federal funds are expended by TIPS OR TIPS MEMBERS, during the term of an award for all contracts and subgrants for construction or repair, when Federal Funds are expended, by the TIPS OR TIPS MEMBERS resulting for this procurement process the vendor will be in compliance with all provisions listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be

required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule above, when federal funds are expended by TIPS or TIPS Members, the proposer certifies that during the term of an award by the TIPS OR TIPS MEMBERS resulting from this procurement process for construction contracts awarded by grantees and subgrantees the proposer agrees to be in compliance with all requirements listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

FAILURE TO PROPERLY COMPLETE THIS FORM AND SUBMIT WITH YOUR RESPONSE MAY RESULT IN A WAIVER OF YOUR RIGHTS UNDER THE LAW TO MAINTAIN CONFIDENTIALITY TREATMENT OF SUBMITTED MATERIALS.

CONFIDENTIAL INFORMATION SUBMITTED IN RESPONSE TO COMPETITIVE PROCUREMENT REQUESTS OF EDUCATION SERVICE CENTER REGION 8 AND TIPS IS GOVERNED BY TEXAS GOVERNMENT CODE, CHAPTER 552

If you consider any portion of your proposal to be confidential information and not subject to public disclosure pursuant to Chapter 552 Tex Gov't Code or other law(s), you **must** make a **copy** of all claimed confidential materials within your proposal and put this **COMPLETED** form as a cover sheet to said materials then scan, name "CONFIDENTIAL" and upload with your proposal submission. (You must include the confidential information in the submitted proposal as well, the copy uploaded is to indicate which material in your proposal, if any, you deem confidential in the event the District receives a Public Information Request.) Education Service Center Region 8 and TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law. Pricing of solicited product or service may be deemed as public information under Chapter 552 Tex Gov't Code. The Office of Texas Attorney General shall make the final determination whether the information held by Education Service Center Region 8 and TIPS is confidential and exempt from public disclosure.

If you claim that parts of your proposal are confidential, complete the top section below.

I DO NOT desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS. The attached contains material from our proposal that I classify and deem confidential under Texas Gov't Code Sec. 552 or other law(s) and I invoke my statutory rights to confidential treatment of the enclosed materials.

Name of company claiming confidential status of material

Printed Name and Title of authorized company officer claiming confidential status of material

City State ZIP Phone Address

ATTACHED ARE COPIES OF _____ PAGES OF CONFIDENTIAL MATERIAL FROM OUR PROPOSAL

Signature _____ Date _____

If you do not claim any of your proposal to be confidential, complete the section below only.

Express Waiver: I desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS.
Johnson Controls, Inc.

Name of company expressly waiving confidential status of material

Brandon Jackson, Vice President of Branch Sales

Printed Name and Title of authorized company officer expressly waiving confidential status of material

5757 North Green Bay Ave., PO Box 591, Milwaukee, WI 53201 1-414-524-1200

City State ZIP Phone Address

Signature _____ Date 3/9/2018

Typical Warranty Terms

Warranty terms vary. The following sample text shows our standard warranty terms. Extended or customized warranty terms are negotiable.

Parts Warranty: JCI warrants that original equipment, parts or components manufactured or labeled by JCI shall be free from defects in material and workmanship under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment. Equipment, parts or components not manufactured or labeled by JCI shall carry a warranty from defects in material and workmanship under normal usage and proper installation and maintenance for a period of ninety (90) days from the date of shipment. Notwithstanding the foregoing, in the event JCI is reasonably able to identify a warranty for a period longer than the ninety (90) days applicable to equipment, parts or components not manufactured or labeled by JCI, it will assign all assignable rights under such warranty to Customer and reasonably cooperate in the enforcement of any warranty claim. Recertified or replacement parts installed on equipment and still under the original equipment manufacturer's warranty are covered for ninety (90) days or the remainder of the original equipment manufacturer warranty period, whichever is longer. For large tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: screw compressors, motors, control panels and components, VFD's and components and Liquid Cooled Solid State Starters and components. For small tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: scroll compressors, condenser coils, control panels and components, screw compressors (DXS and Mustang), and fan motors. In the event of a valid warranty claim, the Customer's remedy shall, at JCI's sole discretion and subject to the exclusions herein, be limited to repair or replacement of the subject equipment, part or component conditioned upon the return to JCI of any defective equipment, part or component. This Parts Warranty does not cover any shipping, handling or transportation charges or any associated labor costs.

Labor Warranty: JCI warrants its workmanship or that of its agents in relation to installation of materials for a period of ninety (90) days from date of installation or with respect to service work for a period of ninety (90) days from the date of service. Customer acknowledges that re-performance shall be its exclusive and only remedy with regards to any services provided by JCI. Customer shall bear all labor costs associated with the repair or replacement of failed material that is outside the scope of this express labor warranty. All warranty labor shall be executed during JCI normal business hours.

These warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.

THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. UNDER NO CIRCUMSTANCES SHALL JCI BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO ANY DEFECT IN MATERIAL OR WORKMANSHIP OF EQUIPMENT OR THE PERFORMANCE OF SERVICES.

The following table provides an FAQ to our warranty terms.

Question	Information
Do your warranties cover all products, parts, and labor?	There is a parts warranty and a typically a manufacturer warranty that is passed on to the customer. Additionally there is a labor warranty provided by Johnson Controls
Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	The warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.
Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	Yes.
Are there any geographic regions of the United States for which you cannot provide a certified technician to perform warranty repairs?	We can provide warranty repairs in all geographic regions.
Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	We pass all manufacturer warranties on to the customer. If requested and negotiated into the contract, we can cover a manufacturer warranty or enable the customer to buy an extended warranty.
What are your proposed exchange and return programs and policies?	<p>If we are in the installation phase and the requested change is similar in price and operation to the planned equipment, we will make the change as requested.</p> <p>If the change is less expensive, we will refund the difference to the customer.</p> <p>If the change is more expensive, we implement the change with a formal Change Order.</p>



HUB Subcontracting Plan (HSP)

QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

- If you will be awarding all of the subcontracting work you have to offer under the contract to only Texas certified HUB vendors, complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors

Section 2 c. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less meets or exceeds the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less does not meet or exceed the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicated the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - No

Section 4 - Affirmation

GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.

- If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources, complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources

Section 3 - Self Performing Justification

Section 4 - Affirmation

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.



HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.13 are:

- **11.2 percent for heavy construction other than building contracts,**
- **21.1 percent for all building construction, including general contractors and operative builders' contracts,**
- **32.9 percent for all special trade construction contracts,**
- **23.7 percent for professional services contracts,**
- **26.0 percent for all other services contracts, and**
- **21.1 percent for commodities contracts.**

- - Agency Special Instructions/Additional Requirements - -

In accordance with 34 TAC §20.14(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only contracts that have been in place for five years or less shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.

SECTION-1: RESPONDENT AND REQUISITION INFORM

- a. Respondent (Company) Name: _____ State of Texas VID #: _____
 Point of Contact: _____ Phone #: _____
 E-mail Address: _____ Fax #: _____
- b. Is your company a State of Texas certified HUB? - Yes - No
- c. Requisition #: _____ Bid Open Date: _____
(mm/dd/yyyy)

Enter your company's name here: _____ Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, including goods and services, will be subcontracted. Note: In accordance with 34 TAC §20.11., an "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

- a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:
- **Yes**, I will be subcontracting portions of the contract. (If **Yes**, complete Item b, of this SECTION and continue to Item c of this SECTION.)
 - **No**, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources. (If **No**, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for five (5) years or less.	Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for more than five (5) years.	Percentage of the contract expected to be subcontracted to non-HUBs.
1		%	%	%
2		%	%	%
3		%	%	%
4		%	%	%
5		%	%	%
6		%	%	%
7		%	%	%
8		%	%	%
9		%	%	%
10		%	%	%
11		%	%	%
12		%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at <http://window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/>).

- c. Check the appropriate box (Yes or No) that indicates whether you will be using **only** Texas certified HUBs to perform **all** of the subcontracting opportunities you listed in SECTION 2, Item b.
- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to Item d, of this SECTION.)
- d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract **with Texas certified** HUBs with which you have a **continuous contract*** in place with for five (5) years or less **meets or exceeds** the HUB goal the contracting agency identified on page 1 in the "**Agency Special Instructions/Additional Requirements**".
- **Yes** (If **Yes**, continue to SECTION 4 **and** complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to SECTION 4 **and** complete an "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed.)

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.

Enter your company's name here: _____

Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT (CONTINUATION SHEET)

a. This page can be used as a continuation sheet to the HSP Form's page 2, Section 2, Item b. Continue listing the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for <u>five (5) years or less</u> .	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for <u>more than five (5) years</u> .	Percentage of the contract expected to be subcontracted to non-HUBs.
16		%	%	%
17		%	%	%
18		%	%	%
19		%	%	%
20		%	%	%
21		%	%	%
22		%	%	%
23		%	%	%
24		%	%	%
25		%	%	%
26		%	%	%
27		%	%	%
28		%	%	%
29		%	%	%
30		%	%	%
31		%	%	%
32		%	%	%
33		%	%	%
34		%	%	%
35		%	%	%
36		%	%	%
37		%	%	%
38		%	%	%
39		%	%	%
40		%	%	%
41		%	%	%
42		%	%	%
43		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

**Continuous Contract: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: Johnson Controls, Inc

Requisition #: 180203

SECTION 3: SELF PERFORMING JUSTIFICATION (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4)

Check the appropriate box (Yes or No) that indicates whether your response/proposal contains an explanation demonstrating how your company will fulfill the entire contract with its own resources.

- **Yes** (If **Yes**, in the space provided below **list the specific page(s)/section(s)** of your proposal which explains how your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)
- **No** (If **No**, in the space provided below **explain how** your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)

SECTION 4: AFFIRMATION

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.

 _____ Signature	Brandon Jackson _____ Printed Name	Vice President of Branch Sales _____ Title	3/4/2018 _____ Date (mm/dd/yyyy)
---	---	--	--

Reminder:

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.

HSP Good Faith Effort - Method B (Attachment B)

Enter your company's name here: _____	Requisition #: _____
---------------------------------------	----------------------

IMPORTANT: If you responded "Yes" to SECTION 2, Items c or d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: Description:

SECTION B-2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If *Yes*, to continue to SECTION B-4.)
- No / Not Applicable (If *No* or *Not Applicable*, continue to SECTION B-3 and SECTION B-4.)

SECTION B-3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you MUST comply with items a, b, c and d, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to your submitting your bid response to the contracting agency. When searching for Texas certified HUBs, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) and Historically Underutilized Business (HUB) Search directory located at <http://mycpa.state.tx.us/tpasscmblsearch/index.jsp>. HUB Status code "A" signifies that the company is a Texas certified HUB.
- b. List the three (3) Texas certified HUBs you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Vendor ID (VID) number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	VID Number	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
			- Yes - No
			- Yes - No
			- Yes - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.

- d. List two (2) trade organizations or development centers you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		- Yes - No
		- Yes - No

HSP Good Faith Effort - Method B (Attachment B) Cont.

Enter your company's name here: _____ Requisition #: _____

SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: Description:

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in SECTION B-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB.

Company Name	Texas certified HUB	VID Number <small>(Required if Texas certified HUB)</small>	Approximate Dollar Amount	Expected Percentage of Contract
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in SECTION B-1 is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

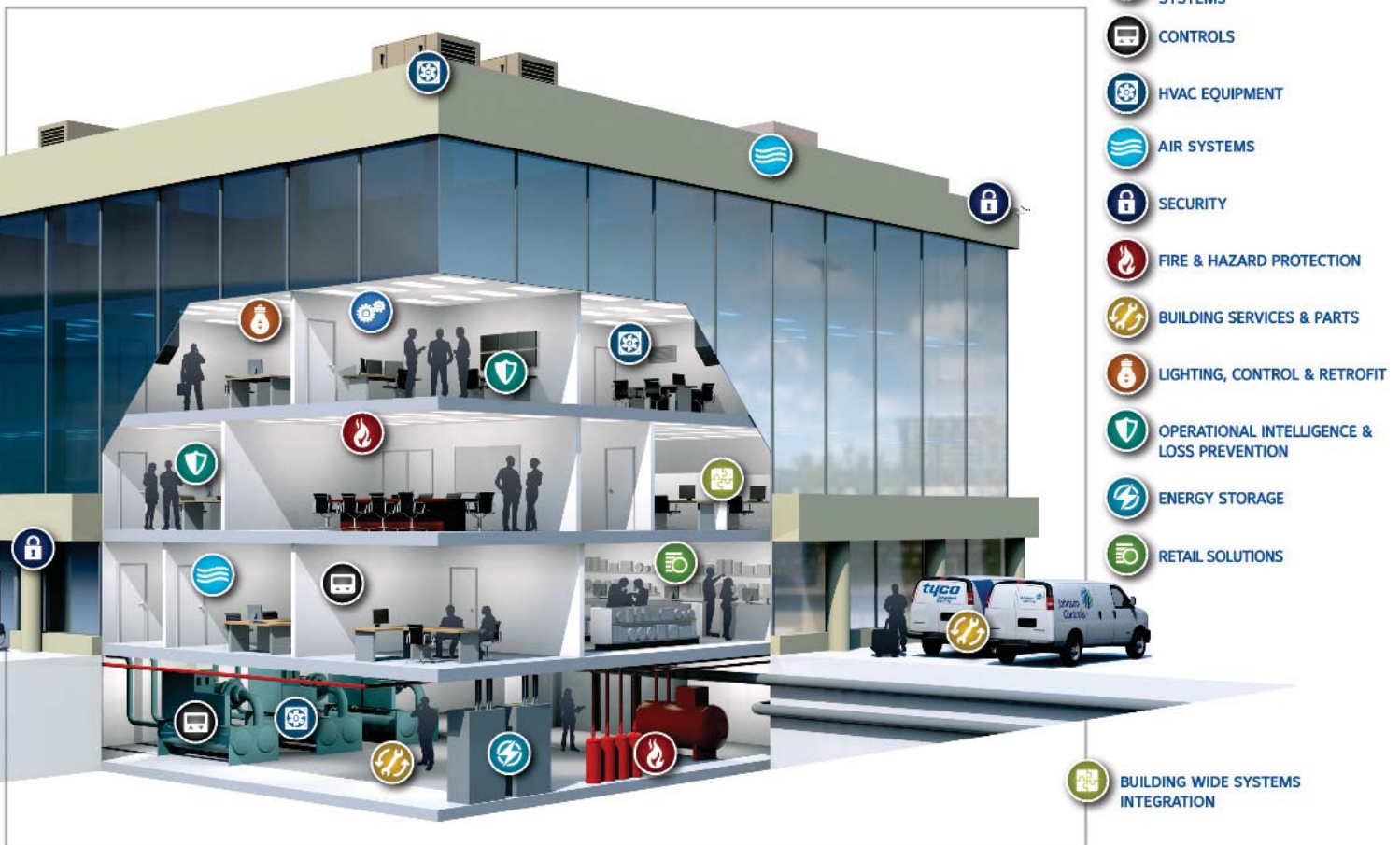
REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

SMARTER, SAFER, MORE SUSTAINABLE
BUILDINGS AND CITIES.



TAKE ADVANTAGE OF A BROADER RANGE OF CAPABILITIES.

Johnson Controls now provides a wider spectrum of innovative products, expert installation and services, and systems integration to help improve operational and energy outcomes for customers worldwide.



HVAC EQUIPMENT

Draw on the most comprehensive HVAC portfolio for commercial and residential buildings of all types, ages and sizes to enhance sustainability, energy use and the indoor environment.

- Chillers—air-cooled; water-cooled; connected
- Condensers and condensing units
- Dedicated outdoor air systems (DOAS)
- Duct-free mini-split systems
- Indoor packaged equipment
- Rooftop units
- Variable refrigerant flow (VRF) systems

SECURITY

Help protect and enhance working and living environments today and tomorrow with integrated, customer-specific solutions from the world's leading security company.

- 24/7 remote monitoring
- Access control
- Advanced video surveillance
- Intrusion detection
- Managed services

CONTROLS

Equip facilities with intelligent HVAC controls to keep occupants comfortable, run equipment efficiently and optimize operating budgets.

- Actuators
- Control panels
- Control sensors
- Current sensors and transducers
- Thermostats
- Valves
- Variable speed drives

FIRE, LIFE-SAFETY & HAZARD PROTECTION

Help keep people and assets safe with comprehensive solutions, design, installation, service and monitoring from a world leading fire and life-safety systems provider.

- Fire alarm systems
- Fire sprinkler systems
- Fire suppression systems
- Mass notification systems
- Special hazard solutions

OPTIMIZATION & RETROFIT SERVICES

Make the most of existing building and financial assets through cost-effective upgrades, central plant strategies, and financing solutions.

- Central chiller plant optimization
- Clean energy assessments
- Energy performance contracts
- Energy retrofits
- Equipment financing
- Healthcare environment optimization
- Public/private partnerships
- Technology refresh services
- Turnkey upgrades and retrofits

LIGHTING CONTROLS & RETROFIT

Save energy, minimize costs and meet organizational goals with a range of services, from business remodels, to new construction lighting design, to municipal street lights.

- Lighting retrofits
- Street and roadway lighting
- Turn-key lighting upgrades

ENERGY STORAGE

Rely on our innovative distributed energy storage products to better manage energy use, cut costs and ensure electrical back-up for a building, campus or enterprise.

- In-building distributed energy storage system
- Modular distributed energy storage system

RETAIL SOLUTIONS

Gain real-time insights into retail facilities, inventories, employees & customers to achieve maximum business performance in a digitally driven shopping world.

- Loss Prevention
- Inventory Intelligence
- Traffic Insights

OPERATIONAL INTELLIGENCE & LOSS PREVENTION

Helps minimize costs, maximize operational performance and enhance return on investment in security programs with business intelligence solutions.

- Information management solutions
- Real-time location systems (RTLS) for asset management
- Video and traffic analytics

BUILDING SERVICES & PARTS

Tap into resources of the industry's largest service network for HVAC, security and life-safety system installation and product support. More than 12,000 technicians working out of nearly 500 local offices can provide 24x7x365 proactive monitoring, remote and on-site service and repair, and replacement parts.

- Aftermarket parts
- Building remote monitoring
- Building system and HVAC repair
- Planned and preventive maintenance
- Predictive and diagnostic services
- Security and life-safety system repair

BUILDING AUTOMATION SYSTEMS

Connect commercial HVAC, lighting, security and protection systems on one platform. Vital data and insights improve efficiency, productivity, and occupants' comfort and safety.

- Metasys® building automation system
- Metasys Enterprise Optimization applications

AIR SYSTEMS

Use efficient air flow building-wide to create healthy, comfortable and visually appealing environments that increase work productivity and occupant satisfaction.

- Air handling units
- Air measuring
- Chilled beams
- Dampers
- EcoAdvance™ HVAC load reduction (HLR) module
- Energy recovery ventilators
- Fan and blower
- Fans
- Filtration
- Grilles and diffusers
- Heating coils and cooling coils
- Louvers
- Under floor air distribution
- Unit ventilators
- Variable air volume (VAV) terminals
- Variable speed drives

BUILDING WIDE SYSTEMS INTEGRATION

Construct a smarter building by converging building, business/IT and specialty systems on an intelligent infrastructure. Let us streamline the process to measurably improve initial and lifecycle costs, enhance function, ensure connectivity and create an innovative, optimized, sustainable environment.



MEET THE WORLD LEADER IN
**INTEGRATED BUILDING TECHNOLOGY
AND ENERGY STORAGE.**

Bringing you the best of Johnson Controls.

More comprehensive products, technologies and services.

More innovation and efficiency over the life of a facility.

More holistic, integrated solutions to help make buildings, campuses and cities increasingly safe, smart and sustainable.

DISCOVER COMPLETE, CONNECTED SOLUTIONS TO HELP

BUILDING SYSTEMS, SERVICES & SOLUTIONS

SERVICES & SOLUTIONS



MAINTENANCE & REPAIR SERVICES

With 418 locations and more than 12,000 highly skilled technicians across North America, we help facilities perform at optimum levels, extend asset life, reduce repair costs, and realize energy savings.



BUILDING WIDE SYSTEMS INTEGRATION (BWSI)

We integrate building systems (HVAC, BAS, security), business systems (finance, IT, communications) and specialty systems (nurse call, distance learning, scheduling) onto a unified, intelligent infrastructure.



TECHNOLOGY CONTRACTING™

We are responsible for managing design, integration, installation and service of all technology. Along with innovative partners, we reduce risk, minimize change orders and meet budgets and deadlines.



ENERGY SOLUTIONS

We assess facilities and design a plan to prioritize repairs, upgrade equipment, reduce energy use and improve overall efficiency. Use tomorrow's energy savings to pay for today's upgrades.

OPTIMIZATION



CENTRAL PLANT OPTIMIZATION (CPO 10 / CPO 30)

CPO 10 uses standardized software in *Metasys* to leverage ASHRAE standards, best practices & equipment data to save 5-15% in energy.

CPO 30 uses engineered software to save 15-20% in energy (up to 60% when retrofitting), with real-time analytics to assure performance.



DEMAND RESPONSE

Optimize building energy usage to reduce load during key periods of high prices, high demand charges and electric grid events to maximize electric bill savings and incentive payments from grid and utility based programs.



HEALTHCARE ENVIRONMENT OPTIMIZATION

Optimize the operating room and improve the patient care environment by linking building automation with surgical scheduling.



METASYS ENTERPRISE OPTIMIZATION

Simplify data collection from a variety of building systems to provide a single, integrated view of building and system performance.

CHILLED WATER SYSTEMS

YORK® WATER-COOLED CHILLERS



ELECTRIC

SCROLL (YCWL) • 50–200 tons
HFC-410A refrigerant



VARIABLE-SPEED SCREW (YVWA) • 125–300 tons
HFC-134a refrigerant



MAGNETIC BEARING VARIABLE SPEED CENTRIFUGAL (YMC²) • 165–1,000 tons
Permanent magnet motor, HFC-134a refrigerant



VARIABLE SPEED CENTRIFUGAL (YK) • 250–3,000 tons
HFC-134a refrigerant



CENTRIFUGAL WITH ECONOMIZER (YK-EP) • 2,500–3,500 tons
Variable-speed drive, HFC-134a refrigerant



CENTRIFUGAL (YD) • 1,500–6,000 tons
Smallest footprint per cooling ton, HFC-134a refrigerant, VSD



COMPOUND CENTRIFUGAL (CYK) • 300–2,500 tons
High-head, HFC-134a refrigerant



CUSTOM-DESIGNED CENTRIFUGAL (OM)

• 3,000–5,500 tons
Electric-motor, steam-turbine or gas-engine drive,
HFC-134a refrigerant



THERMALLY DRIVEN

STEAM-TURBINE DRIVEN CENTRIFUGAL (YST) • 700–2,800 tons
HFC-134a refrigerant



SINGLE-STAGE ABSORPTION (YIA) • 120–1,380 tons
Low-pressure-steam or hot-water driven, water refrigerant



TWO-STAGE ABSORPTION (YPC) • 200–700 tons
Gas, oil, or high-pressure-steam driven, water refrigerant

YORK AIR-COOLED CHILLERS



SCROLL (YCAL & YLAA) • 15–175 tons
HFC-410A refrigerant



HEAT PUMP SCROLL (YLPA) • 1,390–2,040 MBH
HFC-410A refrigerant, chiller duty also available (115–170 tons)



VARIABLE-SPEED SCREW (YVAA/YCIV/YCAV) • 150–500 tons
HFC-134a refrigerant, free cooling options available

DUCTLESS & VRF SYSTEMS

YORK VARIABLE REFRIGERANT FLOW (VRF) SYSTEMS



OUTDOOR UNITS

• 6–30 tons
Both heat recovery and heat pump types, air cooled condensing units with inverter scroll compressors; up to 29.5 SCHE and 25.2 IEER



INDOOR UNITS

• 0.5–4 tons
Fan coil units in multiple styles (concealed, wall mount, ceiling cassette); ducted and non-ducted; sensor options

YORK MINI-SPLIT SYSTEMS



SINGLE ZONE

• 0.75–4 tons
A single condensing unit paired with a single wall mount indoor unit. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star® rated.



MULTI ZONE

• 1.5–3.5 tons
Single condensing unit with 2–5 indoor units per system. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star rated.

HOW DO YOU INCREASE COMFORT, SECURITY AND EFFICIENCY

SOLUTIONS

METASYS® BUILDING AUTOMATION SYSTEMS



NETWORK SERVERS, ENGINES & CONTROLLERS

Intuitive, mobile-optimized user interface. Adapts legacy and proprietary systems to current open system architecture. Support of IT standards and technologies.



WIRELESS COMPONENTS

Field buses and room environment sensing systems designed with the latest wireless technologies.



VALVES, ACTUATORS & DAMPERS

Global product family, broad selection, easy installation.



SENSORS, THERMOSTATS & AIRFLOW MEASURING SYSTEM

Temperature, humidity and CO₂ sensors including analog, network, wireless and pneumatic-to-digital.



VARIABLE-SPEED DRIVES • 1-250 HP

Open, enclosed and bypass drives, optional factory mounting.

ENERGY STORAGE



L1000 IN-BUILDING DISTRIBUTED ENERGY STORAGE SYSTEM

The benefits of advanced battery technology and in-depth building expertise in a small, flexible footprint. Configurable storage capacity in increments of 43 and 65 kWh.



L2000 MODULAR DISTRIBUTED ENERGY STORAGE SYSTEM

Scalable system builds on proven design and environmental controls to ensure economical, reliable performance. Storage capacity configured in 500kWh increments.

LIGHTING



LED RETROFIT KITS

- Utilize existing housing and lens
- Utilize existing housing with updated lens/look



AREA AND STREET LIGHTS

- New fixtures to replace existing HID fixtures

AIR SYSTEMS

YORK AIR HANDLING UNITS, COILS & FANS



AIR HANDLING UNITS (SOLUTION™) • 2,000-120,000 CFM

Indoor and outdoor, 2" foam double-wall panels with external frame, variable aspect, flexible factory-packaged controls



CUSTOM AIR HANDLING UNITS • 2,000-200,000 CFM

Indoor and outdoor, 2", 3" or 4" foam double-wall panels with integral frame, full thermal break options, fully customizable



COILS • Maximum 96" Finned Height and 168" Finned Length
Hot water, chilled water, glycol, steam, refrigerant, aluminum or copper fins, special coatings available



BLOWER COILS • 800-4,000 CFM

Small air handling and large fan coil applications; various configurations



FANS • 75-100,000+ CFM

Commercial and industrial supply and exhaust fans

UNDERFLOOR AIR DISTRIBUTION (UFAD) SYSTEMS



UNDERFLOOR TERMINAL UNITS • 15-1,500 CFM

VAV or manual diffusers, linear trough, UFAD fan powered terminal units, underfloor chilled beams

CHILLED BEAMS



OVERHEAD CHILLED BEAMS • Up to 1,700 BTU/h and 40 CFM per LF • Active and passive chilled beam products available in 2 - 10 foot lengths

TERMINAL UNITS



FAN-COIL UNITS • 250-2,000 CFM

Exposed and concealed, horizontal and vertical, vertical stack, variable cabinet sizing, direct-drive, flexible factory-packaged controls



UNIT VENTILATORS • 500-2,000 CFM

Horizontal and vertical units, flexible factory-packaged controls



VAV TERMINAL BOXES • 75-8,000 CFM

Single or dual-duct, series or parallel fan-powered, flexible factory-packaged controls, water and electric heat options

PACKAGED & SPLIT DX SYSTEMS



PACKAGED ROOFTOP UNITS • 2-150 tons

VAV and single-zone VAV applications, direct replacement options



DEDICATED OUTSIDE AIR SYSTEMS (DOAS) • 50-100% outside air

High efficiency DX, energy recovery wheel and hot gas reheat options



COMMERCIAL SPLIT SYSTEMS • 1.5-50 tons

Cooling only or heat pump outdoor units with matching cooling only, heat pump or electric heat indoor air handling units



WATER SOURCE HEAT PUMPS • 0.5-30 tons

Vertical and horizontal (standard, high and premium efficiency), console, vertical stacked (high and premium efficiency), geothermal capable



REVERSIBLE CHILLERS • 2-50 tons

Water-to-water heat pumps, (2-5 tons & 10-50 tons), modular application, geothermal capable



WATER-COOLED SELF-CONTAINED UNITS • 5-105 tons

Indoor, VAV application (> 8 tons), various heating options



AIR-COOLED SELF-CONTAINED UNITS • 2-25 tons

Indoor, VAV application (> 8 tons), rooftop alternative for dense building landscapes



AIR-COOLED CONDENSERS & FLUID COOLERS • 65-2,890 MBH

Water or glycol, multiple refrigerant options

ENERGY RECOVERY SYSTEMS



ENERGY RECOVERY VENTILATORS (ERV) • 200-12,000 CFM

Energy efficient ventilation including many heating and cooling options



HVAC LOAD REDUCTION UNITS (HLR) • Replaces up to 4,000 CFM of OA

ASHRAE 62.1 compliant product, up to 80% reduction in outside air replacement

INTEGRATED SECURITY & FIRE, LIFE-SAFETY PROTECTION

FIRE HAZARD PROTECTION



FIRE DETECTION AND ALARM

Flexible, reliable, cost-effective and highly scalable systems that can grow and expand as buildings change.



WATER FIRE SUPPRESSION

High-performance sprinkler, deluge & water mist systems.



SPECIAL HAZARD FIRE SUPPRESSION

Foam, clean agent and inert gas systems provide unique answers to unique challenges.



MASS NOTIFICATION SYSTEMS

Customizable, multi-tiered technology helps improve situational awareness and response time.



MECHANICAL PRODUCTS

Cost-effective grooved piping solutions for a full range of fire, mechanical, HVAC and industrial applications.



GAS AND FLAME DETECTION

Advanced sensor technology for multiple flame and toxic gas detection.

LIFE-SAFETY AND PERSONAL PROTECTION



RESPIRATORY PROTECTION SYSTEMS

Supplied air respirators, cylinders, air purifying respirators (APR), and many more solutions that address broad hazardous and industrial applications.



THERMAL IMAGING PRODUCTS

NFPA compliant technology offers comprehensive capabilities to maximize situational awareness.



PERSONAL PROTECTIVE EQUIPMENT

Innovative, industry specific equipment for first responders, firefighters, law enforcement, military and industrial personnel.



COMPRESSORS

Vertical and horizontal units are designed as free standing modules.



COMMUNICATION SYSTEMS

Robust person-to-person communications, advanced audio and wireless technologies, and two-way radio interoperability.

INTEGRATED SECURITY



SECURITY, FIRE & LIFE-SAFETY INTEGRATION

We are a security integrator with a vast product ecosystem specializing in the design, installation and service of security and life-safety solutions for the most complex, mission critical environments.



SECURITY MANAGEMENT SYSTEM (P2000)

Open security management platform with integrated access control, embedded video management and industry-wide third-party integrations.



ACCESS CONTROL / BIOMETRICS

Access control readers, doors, gates and devices help control, track and manage access to any facility.



INTRUSION DETECTION

Solutions customized for each customer leveraging contact devices, motion and glass break detection, panic buttons, photo beam and much more.



PERIMETER PROTECTION

Help achieve a more secure perimeter with ground based radar systems, video surveillance and monitored alarm systems.



VIDEO SURVEILLANCE, VIDEO MANAGEMENT & STORAGE

Robust surveillance systems with video cameras, monitors, CCTV and remote management tools. Scalable, integrated solutions and advanced video analytics.



SECURITY MONITORING

Fully redundant, UL®-listed Customer Care Centers provide 24/7/365 security monitoring.



COMMAND & CONTROL

Physical security information management (PSIM) helps manage all integrated physical security from one streamlined interface.



VEHICLE & GATE MANAGEMENT

K-rated fences and gates, pop-up vehicle barriers, traffic barricades and more to help protect against unauthorized people, vehicles, explosives and other threats.



DURESS & NOTIFICATION SYSTEMS

Broadcast critical messages quickly, all from a simplified web-based interface.



MANAGED SERVICES

Managed video, access control, mobile management, video guard and cloud-based video connected across a variety of platforms to help maintain secured environments in real-time.

RETAIL SOLUTIONS



LOSS PREVENTION

Integrated solutions to help reduce theft and fraud. Key components include store front detection systems (EAS, RFID), tags and labels for products, and camera systems. Software and analytic solutions help efficiency and provide insight.



INVENTORY INTELLIGENCE

TrueVue leverages item-level RFID-enabled technology enabling real-time item-level inventory visibility through the supply chain and into stores.



TRAFFIC INSIGHTS

ShopperTrak provides insights into more than 40B shopper visits per year, including store perimeter traffic counts, interior shopper analytics, labor analytics and market intelligence dashboards to help retailers increase traffic, conversion rates and transaction size.

OPERATIONAL INTELLIGENCE & ASSET PROTECTION



VIDEO BASED ANALYTICS

Video analytics software, web-based video analytics, servers, video audits and more help to analyze the data that matters across many industries.



REAL-TIME LOCATION SYSTEMS (RTLS)

Help keep staff and equipment safe with an RTLS that monitors equipment, medications, temperature sensitive products and staff



INFORMATION MANAGEMENT SOLUTIONS

Integrate multiple systems from multiple vendors, across multiple locations to more effectively manage overall security.

MAKING PROGRESS TOGETHER

Johnson Controls Building Technologies & Solutions partners with customers all over the world, in all market segments: education, healthcare, retail and commercial buildings, institutional and government facilities. We're thinking about your future, and the world's future, to create smarter, safer, more sustainable buildings for today and tomorrow. Our team delivers the technology and expertise that helps the world progress.

Let's talk about the connected building systems, services and solutions we offer to help you achieve your goals.

Call today or learn more at: 844.722.1269

Some of the renowned brands from Johnson Controls include:

tyco

 **YORK**®  **METASYS**®

 **Simplex**  **Grinnell**

Sensormatic®  **ShopperTrak** **TrueVUE**®

exacq  **ANSUL**® **DSC**®  **Visonic**

 **American Dynamics** **KANTECH** **SOFTWARE HOUSE**

JOHNSON CONTROLS AND THE JOHNSON CONTROLS LOGO, METASYS, YORK, TYCO, SIMPLEX AND GRINNELL are marks and/or registered marks. Unauthorized use is strictly prohibited.

Technology Contracting™, Solution™, and EcoAdvance™ are trademarks of Johnson Controls, Inc. in the United States of America and other countries. Other trademarks used herein may be trademarks or registered trademarks of other companies.

ENERGY STAR® and the ENERGY STAR® mark are registered trademarks owned by the U.S. Environmental Protection Agency.

UL™ and the UL logo are trademarks of UL LLC.

© 2016 Johnson Controls. All Rights Reserved.
P.O. Box 423, Milwaukee, WI 53201
Printed in USA
MISC-939 LT1313-00 MC100-2016-008
www.johnsoncontrols.com



Distributed Energy Storage System

L1000 In-Building

Manage energy use, cut costs and provide backup power for a building, campus or enterprise with the L1000 In-Building Distributed Energy Storage System from Johnson Controls. We combine world-class battery technology, in-depth buildings expertise and intelligent controls to deliver the solution that performs best with your specific building systems.

Controls go beyond the battery to optimize whole-building performance and simplify participation in energy markets. Adaptive algorithms and premium battery composition help you realize the lowest total lifecycle cost.

As a global multi-industrial leader emphasizing manufacturing excellence, Johnson Controls is perfectly positioned to partner with you on state-of-the-art energy storage. Learn how you can store and distribute power off the grid with the L1000 small container solution.

Economic Value

The system provides the ability to save money as well as participate in energy markets to deliver economic value to buildings.

Short-Term Energy Backup

The system can be configured to provide short-term electrical backup to the facility while a generator is ramping.

Multiple Power Options

The system output can be configured based upon customer needs from 50kW up to 250kW.

Modular Capacity Options

The system capacity can be configured in increments of 43 and 65 kWh.



Metasys® Compatible

The system integrates seamlessly into the *Metasys*® Building Automation System for local monitoring and control.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Small Footprint

The system can be installed in any electrical room connected to the facility grid.

Distributed Energy Storage System

L1000 In-Building

Product Specifications

	BU-43	BU-65
Minimum Storage Capacity	43 kWh	65 kWh
Storage Capacity Increment	43 kWh	65 kWh
Power Rating	Dependent upon PCS	
Applications	Frequency Regulation, Peak Shaving, Load Shifting, Backup, Volt/Var Support	
DC Voltage	518 VDC	778 VDC
Seismic	Zone 4 (California)	
Market Interface	Johnson Controls	
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet	
Monitoring	Local and Remote	
Battery Cells	VL41M 41Ah Li-Ion Cylindrical Battery	
Certification	Pending	Pending
Expected Life	Up to 20 years*	
Dimensions (W x D x H)	37 x 23 x 74 in.	37 x 23 x 74 in.
Weight (lbs)	1950 lbs.	2600 lbs.

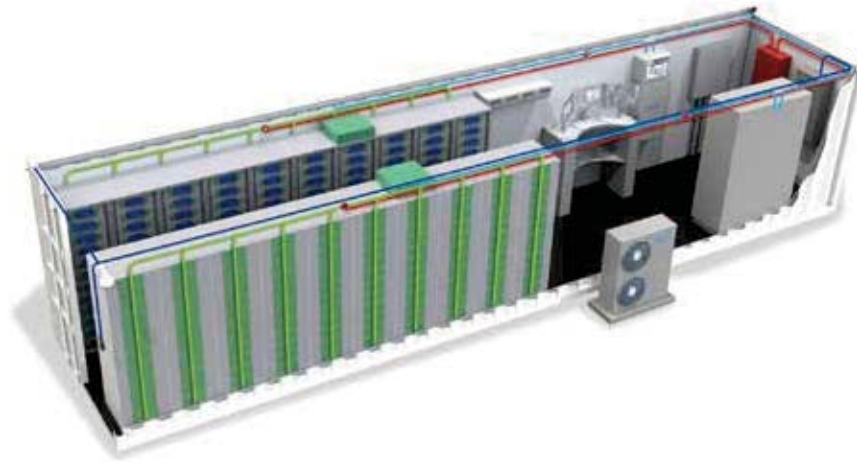
*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Battery Units	
BU-43	43 kWh Li-ion battery storage
BU-65	65 kWh Li-ion battery storage

Distributed Energy Storage System

L2000 Modular Container



Discover state-of-the-art distributed energy storage for utilities and large commercial customers. The L2000 Modular Container Distributed Energy Storage System from Johnson Controls draws on our world-class battery technology, facilities expertise and intelligent controls to handle multiple, concurrent applications. This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants.

Multiple Application Support

The system can be programmed to perform multiple, concurrent applications including transmission and distribution deferral, capacity, voltage support, renewable integration, frequency regulation, and other ancillary services.

Multiple Power Options

The system output can be configured based upon customer needs from 500kW up to 2MW.

Modular Capacity Options

System capacity can be configured based upon customer needs in 500kWh increments.

Utility and Building Compatible

The system integrates seamlessly into the utility or building energy management system using standard protocols.

The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost. As a global multi-industrial leader, we have the manufacturing excellence, innovation focus and customer insight to deliver leading-edge distributed energy storage products. Learn how the L2000 modular system brings new opportunities to regulate, store and distribute power.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Separable Power Conversion

For customers with their own power conversion system, the battery units can be ordered separately.

Modular Footprint

Batteries are housed in custom 20ft or 40ft containers to ISO shipping container dimensions.

Distributed Energy Storage System

L2000 Modular Container

Product Specifications

Minimum Storage Capacity	500 kWh
Storage Capacity Increment	500 kWh
Power Rating	Dependent upon PCS
Applications	Transmission and Distribution Deferral, Capacity, Frequency Regulation, Voltage Support, Renewable Integration, and Other Ancillary Services
DC Voltage	778 VDC (nominal)
AC Voltage	Dependent upon PCS
Seismic	Zone 4 (California)
Market Interface	Johnson Controls
Utility Interface	DNP3
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet
Monitoring	Local and Remote
Fire Alarm Detection	Potter
Fire Suppression	Stat-X Aerosol
HVAC	18,000 BTU York
Network Security	SSL/X509
Battery Cells	VL41M, 41Ah Li-Ion Large Format Cylindrical
Expected Life	Up to 20 years*
Dimensions (W x D x H)	8 feet (2.438 m) x 20-feet (6.95 m) x 8 feet (2.438 m) 8 feet (2.438 m) x 40-feet (12.19 m) x 8 feet (2.438 m)
Weight (lbs)	PCS-500 = 3500 lbs., PCS-2000 = 7000 lbs., BU-1000 = 50,000 lbs.

*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Power Conditioning Systems	
PCS-500	500 KW Inverter
PCS-1000	1 MW Inverter
PCS-2000	2 MW Inverter
Battery Units	
BU-500	500 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1000	1000 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1500	1500 kWh Li-ion battery storage with DNP3 / BACnet interface
Remote Monitoring Units	
RMU-CELL	4G LTE remote monitoring interface
RMU-WIFI	Wireless Internet monitoring interface
RMU-ETH	1G Ethernet interface

Lighting Design Considerations for K-12

Students who are comfortable and happy in their physical environments actually have a better chance of doing well in school. In fact, reports show that **students in well-maintained facilities score up to 10 percent higher on standardized tests.**

You may know Johnson Controls for building systems and equipment, but we also provide lighting solutions and financing expertise to help you build a brighter future for your school.

Depending on the standards that apply, the following indicates the controls required in a school. The ASHRAE 90.1 2010 version expands the list of control requirements: occupancy sensors (or timer switches, per approval by the authority having jurisdiction) that turn the lights off within 30 minutes of the space becoming unoccupied are required in:

- Classrooms and lecture halls
- Conference, meeting and training rooms
- Lunch and break rooms
- Storage and supply rooms between 50 and 1,000 sq. ft. in size
- Rooms used for document copying and printing
- Office spaces up to 250 sq. ft.
- Restrooms
- Dressing and locker rooms

Exceptions include shop and laboratory classrooms, spaces with multi-scene (e.g., dimming) control systems, lighting required for 24-hour operation and spaces where automatic shut off would endanger safety or security of people or property.

Design Considerations

Determine what "standards" need to be followed for light levels, controls, lighting power density, etc.

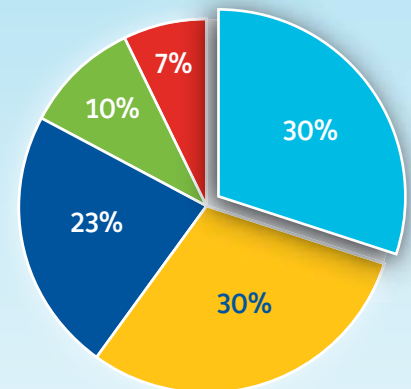
Depending on the standards that apply, the following table indicates the maximum lighting power density (watts/sq. ft.) allowed in a school.

Building Type	Maximum Lighting Power Density (W/sq. ft.) allowed per version of the ASHRAE/IES 90.1 Standard			
	1989	1999/2001	2004/2007	2010
School/University	1.29	1.5	1.2	.99



According to the U.S. Department of Energy, lighting is 30% of the total energy consumed in a typical school.

Typical School Energy Use Distribution
(varies by climate zone)



- Lighting
- Cooling
- Space heating
- Water heating
- Other



Classrooms

In order to provide the most efficient system to meet the adopted codes for classrooms, the following information should be captured:

- Typical layout of the fixture spacing in the classroom
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/outboard switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

CLASSROOM FOOT CANDLE (FC) REQUIREMENTS			
General	20 FC	Art	25 FC
Music	15 FC	Home EC	50 FC
Science Lab	50 FC	Shop	50 FC
Study Hall	15 FC	Multipurpose	25 FC

Gymnasiums

In order to provide the most efficient system to meet the adopted codes for gymnasiums, the following information should be captured:

- Typical layout of the fixture spacing in the gymnasium
 - Allows for light level verification of proposed upgrade
 - Fixture spacing patterns over the court and mounting heights
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for fixture control patterns and light level selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with new fluorescent high bay fixtures.
 - Consider dimming or stepdown options for light level options for recreation and/ or competition play. Refer to IES requirements below.
- Maximize energy savings by performing sample light level calculations using software design programs for new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the class of play and activities. See the chart below to determine the correct foot candle requirements.



GYMNASIUM FOOT CANDLE (FC) REQUIREMENTS			
Physical Education	25 FC	HS Competition	50 FC





Hallways/Stairs

In order to provide the most efficient system to meet the adopted codes for hallways and stairs, the following information should be captured:

- Typical layout of the fixture spacing in the hallways and location of fixtures in the stairs
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/out-board switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls’ manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of “scenes” required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

HALLWAYS/STAIRS FOOT CANDLE (FC) REQUIREMENTS			
Hallways	2.5 FC	Stairs	5 FC

Let us help you build a brighter school and improve student achievement. Visit www.johnsoncontrols.com/k12 to find your local expert.

REFERENCE:
Illuminating Engineering Society, *The Lighting Handbook* – Tenth Edition, Reference and Application

Johnson Controls and the Johnson Controls logo are registered trademarks of Johnson Controls, Inc., or its affiliates, in the United States of America and/or other countries.



ELEVATE PORTFOLIO PERFORMANCE WITH METASYS® ENTERPRISE ENERGY OPTIMIZATION

A family of applications designed to help drive asset uptime, lower energy costs and increase productivity

Today's well-designed building automation systems produce a wealth of data, events and alerts that can be overwhelming. Stretched for time and short on resources, you frequently don't have the capacity to sift through volumes of data to identify critical, costly issues. Metasys Enterprise Energy Optimization helps to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise.

BRINGING IT ALL TOGETHER IN ONE COMPREHENSIVE VIEW.

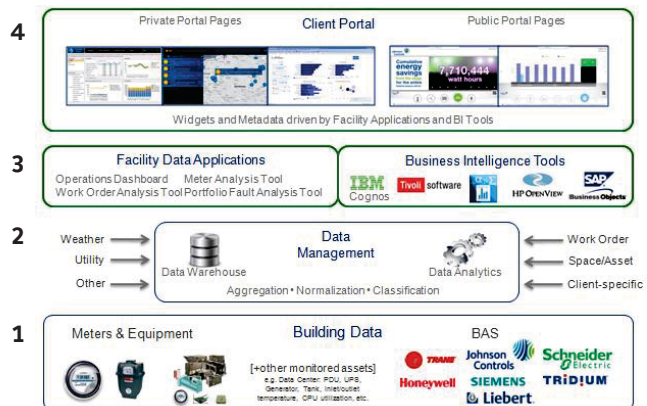
Metasys Enterprise Energy Optimization is a family of dashboards, metering and workflow tools that combine to help you cut through the data clutter with clarity and insight. The applications aggregate and normalize data, analyze it based on standard and client-specific priorities, and then deliver it through visually rich and easy-to-understand maps, charts and graphs. Together, these tools give you an unprecedented view into the performance of your portfolios, allowing you to ensure asset uptime, lower energy costs, increase productivity and report return on investment. Metasys Enterprise Energy Optimization applications combine to deliver value through a four-step process:

1. Gather. The applications are designed to integrate data from countless programs and systems including real estate, work order, energy spend, utilities use and building automation systems (BAS), including Johnson Controls Metasys and other BAS brands. From these various sources, standard data sets are gathered, along with any other customer-specific data that may be valuable based on the customer's goals and priorities.

2. Normalize. The data is then brought together in one place and normalized so it can be used by various applications across multiple vendors and types of devices. The full, normalized data set will then be analyzed to look for anomalies and potential problems, and to identify opportunities for improvement or optimization.

3. Deliver. The analyzed data is then delivered to two types of applications: Facility data applications and business intelligence tools. The facility data applications include dashboards and tools that will further analyze the data to uncover hidden insights, identify faults, prioritize them and allow building professionals to respond to events and alerts. By feeding the normalized data into business intelligence tools, organizations can track building performance against other business goals, such as measuring the amount of energy used per manufactured unit.

4. Visualize. Analyzed, prioritized data is only valuable if it can be easily interpreted. Metasys Enterprise Energy Optimization applications translate data into visual cues that are displayed two ways: A public portal, also known as a "Green Kiosk", displays metrics on things like energy and water use in a way that can be easily understood by the general public. And private portal pages are used by facility staff to assess situations and respond to events and alerts.



METASYS ENTERPRISE ENERGY OPTIMIZATION APPLICATIONS

VIEW & ANALYZE PORTFOLIO PERFORMANCE IN REAL TIME

The **ENTERPRISE DASHBOARD** provides a map-based, high-level overview of your entire real estate portfolio, along with the ability to drill down to individual regions or facilities for more focused views of performance. With the Enterprise Dashboard, you can:

Navigate your way. What's intuitive for one user may not work well for another. On the Enterprise Dashboard, you can drill down to levels of detail using whatever method you prefer, from a scrolling list of facilities, a text search or by zooming in from a map of your real estate portfolio.

Easily identify key performance indicators. Across the vast sources of data being pulled into the dashboard, selected, key metrics can be aggregated for the entire portfolio. The data can be displayed as either graphics or text, and can be exported for use in spreadsheets or other third-party applications.



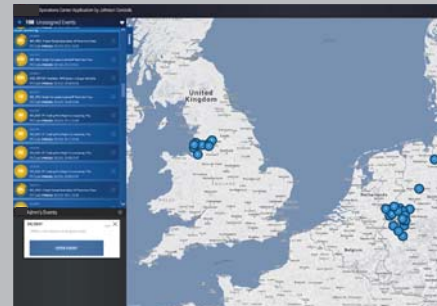
INCREASE PRODUCTIVITY WITH SIMPLE, EFFICIENT WORKFLOW

The **OPERATIONS DASHBOARD** is designed to help you cut through the clutter, by displaying information in a way that's relevant, meaningful and actionable. With it, you can:

Prioritize response. The Operations Dashboard organizes performance information in priority order so you can easily see which efforts will have the greatest impact tied to your specific goals, and with the least amount of hands-on effort.

Eliminate duplication of effort. On the Operations Dashboard, priority issues are placed atop a stack of event banners, allowing authorized operators to simply drag events from the stack and into their workspace. Once an operator has 'claimed' an event banner, that event is removed from the public stack, eliminating the conflict of multiple operators working on the same problem.

Take appropriate action. The Operations Dashboard offers a simple workflow to respond to events and alerts. It presents detailed information on the event, a work order history related to the event, and large decision buttons to Suppress (hide for now), Abandon (return it to the queue), or Create Work Order (act on it). The Create Work Order action is tied to a maintenance management system, such as Maximo, to automatically generate work orders in that system.



SHOW OFF YOUR EFFORTS TO FOSTER GOOD WILL AND FURTHER SUCCESS

Most people have no idea if the buildings they occupy are well run or highly inefficient. The **GREEN KIOSK DASHBOARD** is designed to help you spread the word about your sustainability efforts. The public-facing, dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors. With it, you can:

Tell relatable story. The Green Kiosk displays metrics on things like energy and water use in a way that can be easily understood by the general public. For example, would occupants or visitors to your facility know what it means to reduce CO2 emissions by 24 tons in one week? They may have a greater appreciation for your efforts if the result – a reduction of 24 tons – was displayed with an interpretation such as, “That’s the equivalent of taking XX cars off the road.”



Foster good will and accelerate results. As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

EXPOSE ANOMALIES AND INEFFICIENCIES

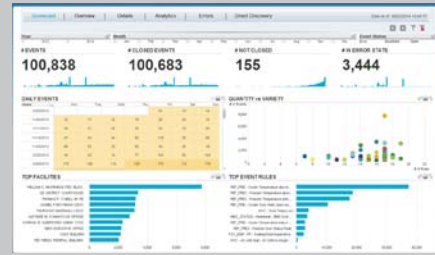
The **METER ANALYSIS TOOL** application includes a collection of visualization widgets to explore and uncover irregularities within energy and other metered utilities. Widgets include energy intensity, campus view, facility comparisons, utility-use heat map, and usage profiles mapped to calendar days. With the Meter Analysis Tool widgets, you can:

- Uncover anomalies.
- Incorporate weather data such as outside temperature and humidity.
- Explain past performance.
- Direct attention to areas of importance.
- Benchmark utility usage.



UNCOVER HIDDEN INSIGHTS WITH AUTOMATED ANALYTICS

The **FAULT ANALYSIS TOOL** is designed to help you proactively discover anomalies and equipment performance issues before they lead to alarms, occupant discomfort or even system failure. By taking a proactive approach to fault detection, you can operate buildings more efficiently and competitively. The Fault Analysis Tool automates detection of faults and other conditions of interest based on priorities you establish. With it, you can:



Customize rules. Rules can be configured to monitor and alert on faults or other conditions of interest in real time, 24/7, or can be applied to historical data to look for past events.

Minimize rule entry. Data from building management systems are automatically imported and grouped by system. A single rule definition can then be applied to a class of system, providing wide coverage with minimal effort.

Avoid costs. Critical events can be tagged for escalation and all events can be optionally monetized to focus priorities.

Analyze root causes. By analyzing the frequency of events and their escalation rates over time, the tool helps you gain insight into the overall performance of key systems and patterns of activity, which may provide clues to root causes.

Add analytics. New areas of interest can be added to the rule set over time, creating an even more powerful capability. And because they can be customized, the rules are aligned with the operational interests of each facility.

Expand surveillance. Initially, rules may be created to uncover problems and suggest root causes and remedies. Later, these same rules guard against reoccurrence of faults as equipment and systems age, or from previously unidentified causes.

The **WORK ORDER ANALYSIS TOOL** is designed to track the status of work orders generated through the Operations Dashboard.

With it, you can:

- View, at-a-glance, the number of work orders reported, closed and the total number of hours worked.
- Track work orders by day, type and location.
- Drill down to view the details of any metric.



GAIN UNPRECEDENTED VISION AND CONTROL

Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give facility professionals' unprecedented control over the operation of their portfolios, with easy-to-use tools designed to help them ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information visit johnsoncontrols.com/metasys or talk to a Johnson Controls representative at (844) 883-1291.



REINFORCE YOUR PUBLIC IMAGE *as a sustainability leader with the METASYSYS® GREEN KIOSK DASHBOARD*

Put your energy efficiency efforts on display

Part of your commitment to energy efficiency and sustainability is demonstrating how your efforts are benefiting the environment. The Metasys Green Kiosk ensures your energy efficiency efforts get noticed by displaying the impact of your initiatives in real time – on a touch-screen kiosk and online. The Metasys Green Kiosk uses maps, charts, graphs and videos to communicate performance in ways that are easily understood by your facility’s occupants and visitors.

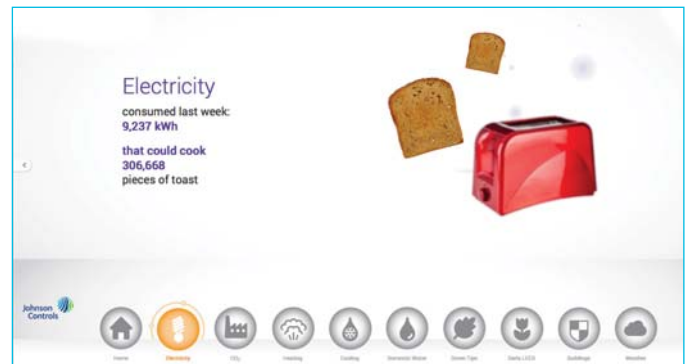
CHOOSE THE INFORMATION YOU WANT *to display*

The Green Kiosk makes use of the Johnson Controls Metasys building automation system to gather data on building performance. And because Metasys integrates with so many different devices, there’s almost no limit to the amount and type of information you can collect and present at the kiosk. Most Green Kiosk users choose to display standard metrics such as electricity usage and water consumption. But it’s possible, for example, to measure how much water is being used specifically by lawn sprinklers or how much energy is used to charge someone’s electric car. If it can be measured, it can be displayed.



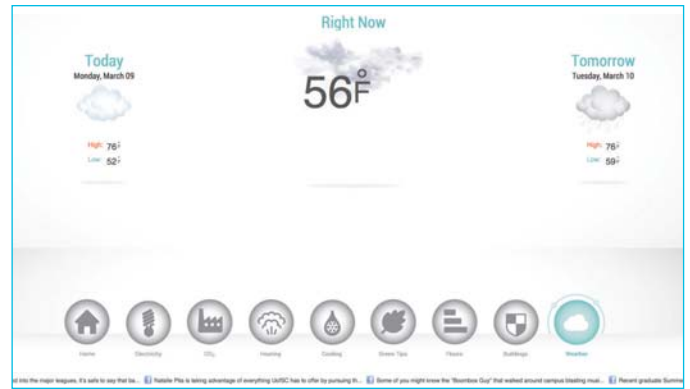
TELL A RELATABLE *story*

Because the Green Kiosk is a public-facing tool, it’s designed to display information in a way that’s easily understood by your facility’s occupants and visitors. For example, instead of just displaying the number of kWh consumed during the previous week, the Green Kiosk also translates electricity use into terms that are relatable: “That’s enough energy to cook 1,922,711 pieces of toast.” The ‘equivalents’ – as they’re called – can also be customized to make them even more meaningful to your audience. On a college campus, an ‘equivalent’ might read, “The cost of last week’s electricity could buy 1,642 slices of pizza.”



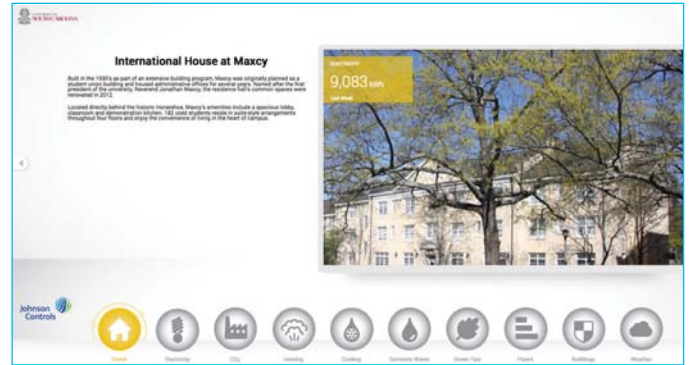
INTEGRATE NON-BUILDING DATA

Green Kiosks are often located in the lobby of a facility, where monitors may already display information such as news, weather, traffic and the company's stock price. If you're currently using monitors to display information in a public space such as a lobby, the Green Kiosk can also pull and display that kind of non-building data within its interface, allowing you to maximize the investment you've made to generate the data.



MANAGE YOUR OWN CONTENT

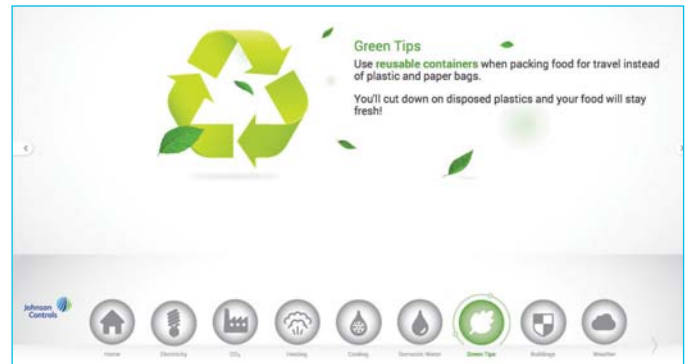
With the Green Kiosk, you can authorize users within your organization to update the content, eliminating the need to pay (and wait for) a third party to make a change when it's needed. Managing your own kiosk content not only saves time and money, it allows you to easily keep the content fresh and relevant, which will in turn, help to engage occupants and visitors.



FOSTER GOOD WILL *and* ACCELERATE RESULTS

As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

Most people have no idea if the buildings they occupy are well run or highly inefficient. The Green Kiosk's dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors.



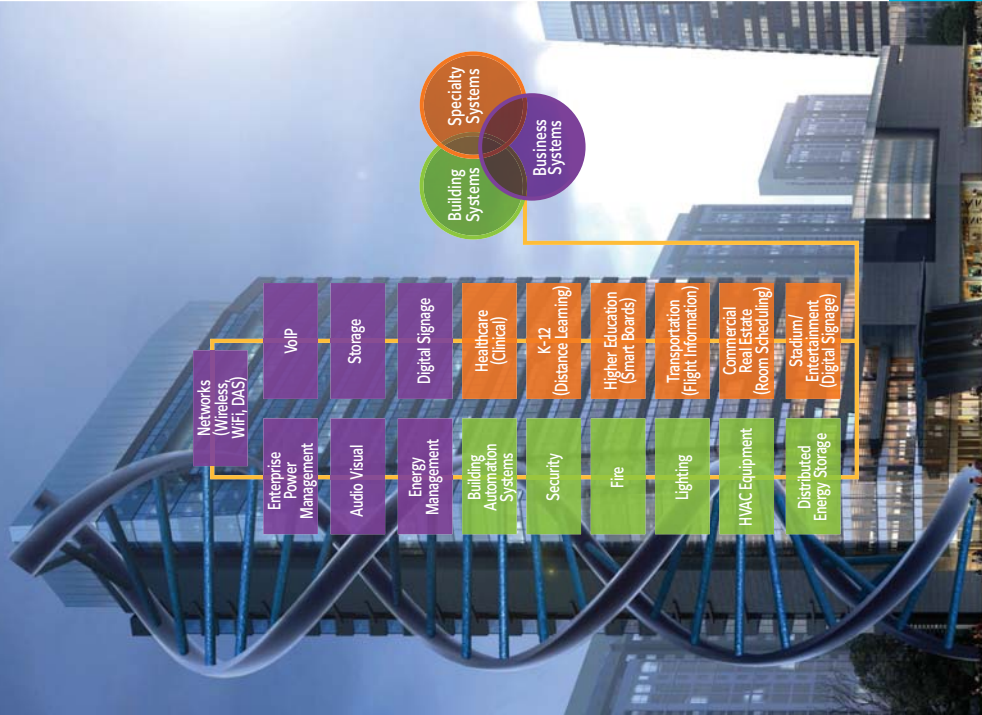
AND THAT'S JUST THE BEGINNING

The Metasys Green Kiosk is part of a family of dashboards, metering and workflow tools designed to help you to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise. Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give you unprecedented control over the operation of your portfolio, with easy-to-use tools designed to help ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information about the Metasys Green Kiosk or Metasys Enterprise Energy Optimization, visit johnsoncontrols.com/metasys, or talk to a Johnson Controls representative at (844) 883-1291.

WE ENGINEER GENIUS INTO A BUILDING'S DNA

Building Wide Systems Integration brings technologies together to create efficiencies for the life of your building.



Building Wide Systems Integration

There's a better way to construct a smarter building. By leveraging convergence of building, business/IT and specialty systems from the beginning you can have a bigger impact on first and lifecycle costs and enhance the functional capabilities for your business. By simplifying and optimizing the process, you'll create an innovative, optimized, efficient and sustainable environment that delivers connected experiences for the people who work there.



Intelligent Building Integration Framework

The Intelligent Building Integration Framework (IBIF) is our process for designing and implementing integrated systems. IBIF consists of a catalog of technologies and use cases across the building, business and specialty system domains. IBIF allows you to implement a proven set of technology designs to meet building and business needs.



Technology Contracting

Save time, reduce risk and decrease construction and operating costs while ensuring that technology is deployed and integrated in an orderly manner with Johnson Controls as the single point of responsibility for technology implementation. Along with an innovative Partner Ecosystem, we provide critical continuity from start to finish. The result is an optimized, intelligent and secure infrastructure that delivers the outcomes you require.



Design Assist

We'll collaborate with the design and construction teams at the earliest phase of the project to optimize the layout and integration of systems and technologies. In partnership with the design team, Johnson Controls makes recommendations for product selections that maximize the efficiency, integration, interoperability, and lifecycle service of technology systems. Moving these decisions to the earliest phase of the design process drives consensus, mitigates construction risk, results in fewer change orders during construction and systems installation, and delivers customer-defined outcomes.



Partner Ecosystem

Our Partner Ecosystem of manufacturers, distributors and value added resellers brings proven, repeatable, best-in-class technologies to your project. This network of industry leaders has the experience, expertise and innovative services and solutions that meet energy, technology and operational objectives, while reducing cost and risk.



Technology Navigation

This structured, interactive process allows you to quickly assess and prioritize technology needs and investments. Participants include a cross functional team from your enterprise, and the construction project team - architects, engineers and general contractor - as required. It results in a technology roadmap, process improvements and a direct path to addressing your most important needs with the most impact.



Integration Hub

We test the interoperability of building, business and specialty systems to create the connected environment that meets energy, technology and operational objectives. The controlled test and development environment of the Integration Hub leverages the Metasys® building automation system platform to validate potential use cases, resulting in tested integrations and interoperability that functions more securely, reliably, scales based upon need, and positively impacts outcomes.



Day 2 Services

After implementation, we resolve critical network issues via a combination of maintenance and warranty coverage for network equipment. We offer 24x7x365 customer support from the Johnson Controls Remote Operations Center (ROC). We'll proactively monitor your network to detect potential problems before they arise, troubleshoot and resolve problems remotely, or send a qualified technician onsite to fix, repair, or replace non-performing components.



Technology Refresh

Update your IT infrastructure during a building retrofit to ensure the latest technology, intelligent infrastructure and bandwidth are in place to handle future innovation.

**BUILDING WIDE SYSTEMS INTEGRATION
POWERED BY BRAINS**









BUILDING WIDE SYSTEMS INTEGRATION

Bringing technologies together to create efficiencies for the life of your building.







Building Systems & Equipment

Building Systems integrations are the key building blocks for creating a smart building and driving increased efficiency.

HVAC Controls	HVAC Equipment
	
Building Management	Air Systems
	
Security	Fire
	








Business Systems

Business Systems integrations provide an avenue to create more complex, automated workflows that positively impact energy utilization, staff efficiency and overall project cost.

Audio Visual	Networks, Wi-Fi, DAS, GPOS
	
VoIP	Power Management
	
Distributed Energy Storage	Digital Signage
	

Vertical Market Specialty Systems

Vertical Market Specialty Systems integrations combine the benefits of Building and Business Systems integrations with Vertical Market-specific Systems. Our vertical market expertise allows us to understand the unique opportunities, challenges, regulations and compliance issues within each market.

Healthcare	Higher Education	K-12
		
<ul style="list-style-type: none"> - Clinician Mobile Communications - Nurse Call - RTLS, Patient Wandering, Infant Protection - Patient Monitoring/Telemetry - Patient Engagement Systems - HEO 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
Transportation	Stadiums & Entertainment	Commercial Real Estate
		
<ul style="list-style-type: none"> - Ramp Service Management - Baggage Handling System - Flight Display System - RTLS/Wayfinding - Distributed Antenna Systems - Parking Systems 	<ul style="list-style-type: none"> - Command Center Solutions - Emergency Communications - Video Analytics - Broadcast/Production Systems - Distributed Antenna Systems - Scoreboards - Fan Experience Applications - Point of Sale - RTLS/Wayfinding - Kiosks 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
	Local Government	
		
	<ul style="list-style-type: none"> - Wireless VoIP - Distributed Antenna Systems - Shot Detection - Solar LED Lighting - Parking Systems - In-car Police Video - Public Wi-Fi 	

CONVERGED TECHNOLOGY SOLUTIONS TO PRODUCE SMARTER BUILDINGS

Printed on recycled paper. Johnson Controls, the Johnson Controls logo and Technology Contracting are registered trademarks of Johnson Controls or its affiliates, in the United States of America and/or other countries. ©2016 Johnson Controls, P.O. Box 423, Milwaukee, WI 53201. Printed in USA. MSC - 931 www.johnsoncontrols.com

Connected, safe, secure and sustainable buildings, campuses and cities.

Maximum Value Delivered

- Systems that work Day 1
- Reduction in first and lifecycle costs
- Sustainability
- Serviceability of all systems
- Desired outcomes – today and in the future





Johnson Controls RFP Response to The Interlocal Purchasing System (TIPS)

RFP 180203 Renewable Energy and Solar Solutions and Services

March 16, 2018

© 2018 Johnson Controls, Inc. Do not copy (physically, electronically, or in any other media) without the express written permission of Johnson Controls, Inc.



Johnson Controls, Inc.
5757 North Green Bay Ave P.O. Box 591
Milwaukee, WI 53201



The Interlocal Purchasing System (TIPS)
Region 8 Education Service Center
4845 US Hwy. 271 North
Pittsburg, Texas 75686

Dear TIPS Selection Committee,

TIPS members are well aware that the infrastructure and services required to meet the unprecedented demands of public facilities have been on the rise, while available funding has been heading in the opposite direction.

The last thing TIPS members need to worry about is the facilities that make their mission possible. That is where Johnson Controls can step in to help. As leaders in building efficiency, we provide many Renewable Energy and Solar Solutions and Services that can help TIPS members reduce energy costs and improve the energy efficiency of their facilities.

Johnson Controls can support TIPS members nationwide from over 140 branch locations, including 10 branch offices in Texas. Our Advanced Solutions Team can help TIPS members develop solar, wind power, energy storage, geothermal, or biomass projects at their facilities. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

Johnson Controls has supported **over** 20 TIPS customers through our current and recent contract awards. Because we view ourselves as partners with our customers, we provide them with more than a set of technological upgrades based on our own equipment. Instead, we provide them with options for improving their facilities that enable them to choose the combination of improvements that makes the most sense for their organization. In doing so, we leverage existing technological investments to the largest extent possible.

We thank you in advance for giving us the opportunity to be considered for this opportunity, and we look forward to working with TIPS members on future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Pergande".

Andrew Pergande

Group Purchasing Organization Manager

Andrew.Pergande@jci.com

1-414-524-6937

Table of Contents

- Executive Summary 2**
 - Unparalleled Experience2
 - We Are Where You Are.....2
 - Flexibility and Consistency3
 - Safety3
 - Commitment to Diversity.....3
 - Commitment to Sustainability3
 - Pricing4
 - Conclusion.....4
- Proposed Goods and Services 5**
 - Solar Photovoltaic6
 - Wind Power7
 - Alternative Energy Powered Heating and Cooling.....7
 - Lighting for Street and Parking Lights7
 - Pumping Systems8
 - Microgrid.....9
 - Energy Storage9
 - Waste Heat Recovery and Urban Biogas Utilization 11
 - Sewer Heat Recovery 11
 - Renewable Energy Services 12
 - Past Experience with TIPS 13
 - Conflicts of Interest..... 14
 - Deviations of Terms 14



Executive Summary

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members can engage an Original Equipment Manufacturer (OEM) that can provide a single point of contact and accountability for all of their Renewable Energy and Solar Solutions and service needs. Our expert level of expertise in solar, wind power, energy storage, geothermal, or biomass will help TIPS members ensure that their project produces significant energy savings and the highest return on investment.

Unparalleled Experience

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members will engage an industry leader that has been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies.

Additionally, we are the national leader in Energy Saving Performance Contracting (ESPC) with a greater market share and more experience than any of our competitors. We currently hold over \$6 billion in performance-based guarantees through approximately 615 projects across North America.

This experience ensures that TIPS members can realize a high-performance project that is designed, implemented, commissioned, and serviced by reliable experts that have successfully performed similar projects for other K-12, higher-education, state, and local government bodies.

We offer our customers the reliability and financial stability of a Fortune Global 500 company with over 121,000 employees. Our sales for fiscal year 2017 totaled \$30 billion. Our financial muscle is balanced by a strong code of ethics. For ten years in a row, Johnson Controls was named one of the “World’s Most Ethical Companies” by the Ethisphere Institute. Corporate Responsibility Magazine has also recognized Johnson Controls as the #14 company in its annual “100 Best Corporate Citizens” list.

Our long history and proven capabilities illustrate that we can perform all phases of any project and provide TIPS member entities with best value through a coordinated set of impactful Energy Conservation Measures (ECMs), infrastructure upgrades, equipment maintenance and service, IGAs, or any combination of service that they require.

We Are Where You Are

Although Johnson Controls has a large national and international footprint, we understand the importance of having a local presence in the communities we serve.

Our extensive branch network is 100% company owned and operated, which enables us to share resources, expertise, innovations, and our corporate values throughout the entire branch network. This enables all of our

branch employees to benefit from the experience and lessons learned on projects we perform across the nation and around the world. No other Energy Services Company (ESCO) has a similar network.

By investing in local branch locations, we enable local decision-making authority that makes it easier to respond to the needs of customers in a timely manner. Our investment also helps support the communities where we live and work.

Flexibility and Consistency

TIPS members can benefit from our established and uniform development and implementation approaches that provide a consistent level of service and expedited delivery. We will apply the same management approach at a small-town school district, as we will for a world-renowned University or large state customer with highly dispersed facilities. This ensures that each project meets our standards of quality, safety, and maximum return on investment for our customers.

With the large number of resources available to our teams, we are able to provide projects with additional staff to meet aggressive deadlines. Additionally, our ability to streamline the development, procurement, and implementation processes ensures faster upgrades of facilities so our customers will realize savings sooner.

Safety

At Johnson Controls, we realize safety is just as important to you as it is to us. From onsite field employees to corporate offices, safety is built into all the services we provide.

Compared to the industry averages for Total Recordable Injury Rate (TRIR) and Lost Time Injury Rate (LTIR), Johnson Controls is leading the way in safety. In fact, our current safety record surpasses the published future safety goals of most industrial leaders.

Commitment to Diversity

For any project we undertake, we endeavor to maximize participation from minority-owned and Historically Underutilized Businesses (HUBs). This is an increasingly important goal for many of our customers, and benefits Johnson Controls by expanding our pool of available talent in each marketplace.

Johnson Controls is committed to being a leader in supplier diversity. By incorporating certified minority-owned suppliers, as well as small or disadvantaged businesses, into our customer solutions, we economically equip entire communities and gain a competitive advantage. We have more than 700 diverse suppliers representing more than 50 product and service categories. Approximately 7% of Johnson Controls' outside purchases are made with diverse suppliers and contractors with minority purchases making up approximately 80% of the spend. The remaining external purchases are from woman-owned firms and firms designated by government agencies as small or disadvantaged businesses.

Because of these efforts, Johnson Controls has joined the elite Billion Dollar Roundtable, an organization comprised of only 24 U.S. corporations that spend more than \$1 billion annually with minority- and women-owned businesses.

Commitment to Sustainability

Sustainability is a cornerstone of our business. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our corporate headquarters campus in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.

Since 2002, we have publically reported various sustainability data, including safety, and environmental metrics. We published our first annual Business and Sustainability Report in 2003, which details our performance in accordance with the Global Reporting Initiative (GRI) guidelines – the most widely accepted global standard for reporting corporate responsibility. Our Sustainability Report is available for you to view online at:

<http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies/business-and-sustainability-report/environmental-leadership>

Pricing

Johnson Controls offers Cost Plus pricing for renewable technologies. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts.

For estimating, our teams mainly use Nx Gen for Service work and the Projects Development Tool for larger scale projects. These are the tools we have used for some time and have used previously with TIPS and TIPS customers. Johnson Controls is willing to engage TIPS in an approval process for these tools if necessary.

Conclusion

TIPS members can ensure the success of their projects by selecting an experienced firm with a local presence and a long record of accomplishment in K-12, higher education, and state and local government projects. As the national leader in Renewable Energy and Solar Solutions and Services, we are uniquely well positioned to partner with TIPS members on their projects because we can provide a single source of accountability for any project. Whether your project is a Microgrid, a small solar system, emergency service, or any combination of services or products, TIPS members will get the same reliable service, high-performance, and attention to detail without regard to the size of your project.



Proposed Goods and Services

Warren S. Johnson, a professor at the State Normal School in Whitewater, Wisconsin, received a patent for the electric room thermostat in 1883. His invention launched the building control industry and was the impetus for the Johnson Electric Service Company, which he founded to manufacture, install, and service automatic temperature regulation systems. This foundation ignited a culture of customer-focused innovation for 130 years.

That passion continues today as Johnson Controls is a global leader in delivering solar, wind power, energy storage, geothermal, or biomass solutions. To date, we have been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies. Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000.

Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000. Our renewable technologies customers include K-12 school districts, higher education customers, local governments, state government departments, and federal government agencies.

Renewable solutions are a major focus of our organization. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our Building Efficiency headquarters in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.



Our renewable energy team has the capability to evaluate, design, and develop a diverse array of renewable energy technologies, such as solar, wind, bio-mass, landfill gas, and geothermal. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

The following list shows a subset of our renewable energy system capabilities:

- Solar photovoltaic
- Wind turbines
- Thermal heating systems
- Alternative energy HVAC
- Geothermal heat pumps
- Street and parking lighting
- Pumping systems
- Microgrid
- Energy storage
- Solar daylighting
- Biomass plants
- Solar thermal domestic water heating
- Solar transpired walls

Solar Photovoltaic

The Solar PV team is responsible for engineering design or oversight of design on solar PV projects, including product selection, vendor relationships, output modeling for PV systems, and preliminary cost estimation. This team has implemented over 100 Solar projects, including projects at Tulare, CA where we installed a 30 Kw PV system in the carport and a 1 MW system on land that generates 1,860,000Kwh annually.

The **State of Utah** implemented a **Solar for Schools** program with Johnson Controls that provided 73 5-kilowatt, high efficiency solar modules with inverters, mounting racks, spec sheets, and full warranties. The goal of the program is to mount at least one module in each of the state's 41 districts. We also provided training in renewable energy to help school staff ensure performance.

Other projects include the State of Utah, Mount Wachusett Community College, the U.S. Bureau of Land Management, and the Marine Corps Air Ground Combat Center in Twentynine Palms, California.

At **Wyandotte Public Schools** in Michigan, Johnson Controls installed an 8.4 kW-AC photovoltaic system on the roof of Wilson Middle School. The PV array provides electricity directly to the school to reduce the amount of electricity purchased from the local utility.

This installation is part of a multi-phased performance contracting program implemented over several years to reduce operating costs and improve comfort throughout the school district. The improvements enabled all 11 facilities across the district to obtain ENERGY STAR certification, making Wyandotte Public Schools the first district in the state of Michigan to achieve this distinction.



Solar for Schools is expected to remove more than 8,000 tons of carbon dioxide from the atmosphere over 20 years, equivalent to the carbon offset that would be generated by planting 11,000 trees and letting them grow for ten years.



At San Juan College in Farmington, New Mexico, Johnson Controls provided a PV array, solar thermal floor heating, a geothermal heat pump, controls, and a monitoring system. The monitoring system was used for student instruction in the outdoor learning laboratory. The building received LEED Gold Certification.

Wind Power

Johnson Controls has experience with implementing power generating wind turbines.

At the Bureau of Land Management Field Office in Rawlins, Wyoming, we installed a new 120-foot wind turbine rated at 100 kW with an estimated output of 300,000 kW hours per year.

Johnson Controls provided a turnkey installation of a 100kW wind turbine for the Rawlins Field Office. Manufactured by Vermont based Northern Power Systems, the Northwind 100 wind turbine will replace the existing 20kW turbine with a high reliability direct drive (gearless) design.

An excellent wind resource exists at the site, and the Northwind 100 is expected to produce over 300,000 kWh per year (approximately 60% of the annual energy needs of the Rawlins Field Office).



Alternative Energy Powered Heating and Cooling

Ground-source geothermal heat pump system can provide a "green" solution to heating and cooling challenges, offset capital HVAC costs, and address lack of redundancy.

A geothermal system provides heat in the winter by tapping into the earth to capture its renewable energy. It provides cooling in the summer by removing heat from the home and placing it in the cooler earth.



At the Claremore Campus Rogers University we provided a 416 tons mono-loop central geothermal system.

Lighting for Street and Parking Lights

Johnson Controls brings the capabilities of **90 dedicated lighting professionals**, including six **NCQLP** certified lighting designers, who bring hundreds of years of experience designing and implementing lighting projects. As the largest non-OEM lighting retrofit contractor in the U.S. with more than **250,000 fixture replacements/retrofits each year**, we are at the forefront of new lighting technologies.

We can develop intelligent, adaptable and future ready designs so additional systems for parking management, traffic control, cameras/safety, digital signage and water/climate detection can easily be added. We also have an in-house material procurement team to get you the absolute best material pricing without additional layers of mark up.

Effective street lighting design and selection focused on extending lifecycles and reducing O&M costs requires specialized expertise. Johnson Controls brings the capabilities of in-house lighting experts, Johnson Controls Lighting Services, as well as specialized modeling, mapping and project management tools to keep you up to date on the project's progress. In all, we have worked with numerous municipalities across the country on similar street lighting design and technology selection projects, retrofitting or replacing more than 250,000 fixtures each year.



At the City of Binghamton, NY, we reviewed all municipal lighting, including GPS mapping of all lights, and an analysis to determine energy savings. We also used a pilot program in three locations to provide data before full installation. Energy and maintenance savings from this effort will offset project costs paid for through the City's capital bond.

Reduced Associated Carbon Footprint

Johnson Controls' lighting experts will help you select the right solution to significantly reduce the carbon footprint of your street or parking lights. As a leader in local government solutions, we can also expand this effort to your facilities. We can not only deliver this effort, but serve as your long-term energy partner, providing you with a comprehensive, holistic city-wide approach to carbon management and energy efficiency.

Reduce Costs Associated With Street Lighting Operations

We develop detailed and individualized maintenance programs in conjunction with clients and in coordination with your staff to achieve your organizational, operational, and financial goals. We are vendor neutral, focused only on getting the best technology option at the best price for the customer.

Reduce Light Pollution Associated With Street Lighting

Johnson Controls knows how to design optimal street lighting projects using photometrics that maximize safety and minimize light pollution, having implemented several dark sky compliant projects nationwide. In Hawaii, we effectively worked with State and community representatives to create a regulation-compliant design for 21,000 street lights that also had community input and acceptance.

Experience with Street Light Infrastructure Acquisition from Utilities

Johnson Controls has demonstrated experience and a proven process for working with municipalities and utility companies on street light acquisition. We worked closely with NYSEG on our street light project with the City of Binghamton, as well as with utilities across New York and Pennsylvania as part of numerous other municipal street lighting acquisition projects.

Experience Developing and Implementing Street Lighting Projects

We have worked with numerous municipalities across the country on street lighting design and technology selection projects, having recently installed 70,000 LED street lights. Our dedicated product testing and technology vetting group is continually testing new products and we only recommend those that have achieved approval through a technical, financial and commercial risk review for use in a long-term performance contract. We also test proven technologies to ensure they perform for cities over the equipment life cycle, and use GIS mapping to expedite the street light inventory process.

Pumping Systems

We have experience with HVAC, indoor air quality, chlorine management, chemical detection and measurement, lighting, locker room water improvements and related equipment in pool and recreational facilities. Our experience includes the implementation of several improvement measures such as swimming pool de-humidification systems and gymnasium ventilation improvements.



Meeting Your Dark Sky Goals

We have met similar dark sky requirements on our work with the Hawaii DOT. We accompanied State Highways representatives to meet with the Starlight Committee, the local dark sky organization, to discuss dark sky and other observatory needs. We were able to effectively work with State and community representatives to create not only a regulation-compliant design that also has community input and acceptance.

Microgrid

With our strong background in designing and building renewable applications, Johnson Controls develops or participates in many microgrid implementations.

For example, at **Isle Royale National Park** Johnson Controls installed Distributed Generation and Control Systems to operate as a remote microgrid. This project included three separate locations up to 40 miles apart from one another, including Mott Island, Windigo, and Rock Harbor.

Johnson Controls installed 23 solar thermal domestic hot water pre-heating systems including 61 collection panels across various facilities at the Rock Harbor and Windigo campuses. The solar thermal systems provide approximately 78% of the estimated annual energy required for domestic hot water at Windigo.

At the Rock Harbor site, the systems displace 87% of the estimated annual electricity use and 45.7% of estimated fuel oil use for domestic hot water. They conducted energy efficient lighting upgrades, and installed solar PV hybrid system, solar attic fans, and water conservation system.

The project will alleviate dependence on diesel and showcase the island as a model of sustainability for other Government agencies to follow. The total facility size for Phase 1 is 66,931 square feet. This will result in 2,724 million Btus saved annually and 19,000-gallon reduction in annual diesel fuel consumption.

“Johnson Controls was the most qualified ESCO to assist Isle Royale with our savings goals. Their ECM options are innovative and their strong local resources are unmatched. The Johnson Controls Team understands our objectives and is committed to building a relationship with us.”

Phyllis Green
Isle Royale Superintendent

Energy Storage

Batteries are a core business for Johnson Controls. We have 100+ years of experience delivering batteries that meet our customers’ evolving needs. We’re the world’s largest supplier of vehicle batteries, producing one-third of the industry’s total output every year. Our distributed energy storage systems include cell-level monitoring and control, as well as smart algorithms that promote long-term cell life.

The Stationary Energy Storage team helps customers realize savings through energy storage and peak shaving. They engineer, develop, manufacture, and sell stationary energy storage solutions that use smart technology to reduce energy costs by decreasing electric demand charges.

Johnson Controls provides the most efficient and reliable energy storage system for enabling grid optimization and renewable energy integration. The strength of our offering comes from the combination of our advanced Li-Ion battery technologies and our many decades of experience as a pioneer in the development of energy control systems.

Energy storage is the process of collecting and preserving energy for on-demand use and is accomplished through the introduction and use of devices or physical media that store energy to perform useful processes at a later time.



With this solution, Johnson Controls employs world-class battery technology, building systems expertise, and intelligent controls to facilitate energy storage at the lowest lifecycle cost. Johnson Controls' energy storage solutions include:

- Battery Power Stationary Storage
- Solar PV
- Thermal Energy Storage Systems
- Ice Storage
- Microgrids

By combining advanced energy technology with in-depth building knowledge, Johnson Controls provides clients with holistic energy storage solutions that work best based on specific application needs and requirements, in front of or behind the meter. Because each client's needs vary greatly, Johnson Controls' energy storage solutions have been designed with scalability in mind.

Battery Power Stationary Storage

Stationary Storage has improved to the point where customers are seeing significant economic benefit from employing battery systems to provide a hedge against spiking demand charges. Our stationary battery systems store excess energy when the power-generating systems are running, and provide power when the power-generating systems are offline.

Energy Storage System - In-Building

In-building distributed energy storage systems help to manage energy use, cut costs, and provide backup power for single buildings as well as entire campuses or enterprises.

Modular Container Distributed Energy Storage System

This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants. The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost.

Thermal Energy Storage Systems

Thermal Energy Storage systems reduce on-peak electrical demand and energy costs. With adequate access to unobstructed sunlight, solar thermal energy can be created by absorbing the sun's heat with devices such as flat-plate solar energy collectors. A heat transfer fluid passes through tubes within the solar collectors where it is warmed and then distributed to the heating system.



Ice Storage

Ice storage air conditioning is the process of using ice for thermal energy storage. This system provides efficient cooling during the day by circulating refrigerant through coils in its ice storage tank, eliminating the need to run an energy-intensive compressor during peak daytime hours. The system re-freezes ice each night when electricity generation is cleaner, more efficient, and less expensive.



L1000 In-Building Energy Storage System



Waste Heat Recovery and Urban Biogas Utilization

Many of our projects make use of waste heat recovery technology. For the **City of Baltimore Back River WWTP**, Johnson Controls developed a combined heat and power plant that uses the remainders of treated wastewater as fuel.

The plant will generate more than 2.4 megawatts of electricity per year, provide steam to offset process-heating requirements and produce hot water for boilers. As an added benefit, the digester gas cogeneration plant will reduce emissions, save taxpayer dollars, address workforce development, and support the local economy.



Johnson Controls also designed and constructed a 1,000 kW ground-mount PV system located at the Back River Waste Water Treatment Plant. Using SolarWorld modules and leveraging a grant from the Maryland Energy Administration, this project supports the City's objectives toward self-generation of 30% of all energy. This is a fixed-tilt, custom racking system suitable for the site's topography.



At the **City of Fort Worth**, Johnson Controls began an energy efficiency partnership in 2003 that has grown to seven phases of major infrastructure improvements in 107 city-owned facilities. The \$69 million investment will save the City \$93 million over a 15-year period. Johnson Controls guarantees these savings under the Energy Savings Performance Contract (ESPC) funding vehicle authorized by the State of Texas for public entities.

The largest of the seven projects occurred at the **Village Creek Water Reclamation Plant** – a \$35 million initiative that has significantly benefitted the City's goal to establish Village Creek as a Net Zero Energy Facility. This ESPC project reduced electrical consumption by 39%, which has taken more than \$2.5 million off the plant's electric bills each year. In addition, Oncor Electric provided \$1.3 million in rebates to the City due to electric demand reductions.

For this project, Johnson Controls developed and implemented a 50,000 lb/hour, 235-psig steam system. Heat was recovered from combustion turbine exhaust, and supplemented with heat created by burning biogas produced at the wastewater treatment plant in a duct burner. This project also involved improvements to increase the production of biogas through the addition of high-strength waste to the digesting bio solids.

Sewer Heat Recovery

Johnson Controls also has experience providing sewer heat recovery solutions. At the **Beaufort-Jasper Water & Sewer Authority** in South Carolina, Johnson Controls used finished water (i.e. potable or drinking water) as a heat sink via a plate and frame heat exchanger for controlling the environment within their administrative building.

This concept is similar to a Geothermal HVAC. By using reversible heat pump chillers to meet their heating/cooling needs, Johnson Controls was able to provide both heating and cooling for water source heat pumps in the older building section as well as newer VAV/Air Handling system in the newer part of the facility. This project qualified for local utility incentives of approximately \$132,000 and had an annual expected energy savings of approximately \$48,000 per year.

Renewable Energy Services

Every renewable energy project requires a process that includes:

- Onsite evaluation of energy consumption
- Return on investment analysis
- Consultation and recommendations
- Custom system design

We have performed this process for over 3,100 projects through our performance contracting. Each assessment considers the needs of the customer and project stakeholders, which can include a board of directors, local government departments, or the general public.

The Johnson Controls strategic planning process enables our customers to clearly identify their facility and operational strengths and weaknesses before construction begins. This allows facility and construction changes to focus on and address outlined deficiencies. Having these groups involved up-front in the process directly influences the final issues addressed in the construction phase. Some specific examples include the following:

- **Bagley School District** chose to add additional classrooms due to growing enrollment and feedback from community, teachers and staff.
- **Warren-Alvarado-Oslo School District** chose to engage in a more involved re-purpose of their elementary school classroom spaces, as well as mechanical upgrade, due to feedback from teachers and staff.
- **Thief River Falls School District** reviewed their math series as a result of feedback given by their student stakeholders.
- **Duluth School District** chose to add/revise the circulation path and design intent, based on specific feedback from students, teachers and staff.

Throughout our decades of experience in the energy efficiency industry, Johnson Controls has developed a four-phased approach to maximizing energy efficiency for our clients. The phases are: Preliminary Assessment, Project Development, Project Implementation, and Performance Period. The services outlined in the RFP occur during the first two phases of our process.

Onsite Evaluation of Energy Consumption

During the Preliminary Assessment phase of the project, Johnson Controls assesses the energy consumption at the site by interviewing the customer and surveying the utility bill history of the facility.

For projects with substantial technical and financial risk, this process helps mitigate the risks to the overall program by allowing the proponent and customer to avoid excessive investment of time or money early in the project when options are still being evaluated.

Johnson Controls employs a Life-cycle evaluation strategy when making long-term facility decisions. Studies have shown that first-cost centered evaluations often result in long-term cost problems, because much of the cost of building, operating, and maintaining the project falls outside of the initial first cost.

During the Project Development phase of the project, Johnson Controls conducts in-depth assessments of the facilities, which includes baseline development and a technical and economic feasibility analysis. We deploy data loggers to measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible.

Return on Investment Analysis

During the Project Development phase of the project, Johnson Controls develops a baseline, performs a technical and economic feasibility analysis, and performs a cost analysis of each improvement. We deploy data loggers to

measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible. This information help determine the potential return on investment.

Consultation and Consultation for the Right Decision

During the second phase of the project, we work closely with the project stakeholders at every major milestone to ensure the customer is aware of the project status and approve any major decision before we move forward. These meetings take place to decide on pricing, cash flow, selection of equipment, selection of subcontractors, determination of the project baseline methodology, and any other major decision.

During this phase, we meet with maintenance staff to assess the current equipment and get an understanding of the control metrics in place. We also gather existing schedules to determine how the customer uses their equipment and controls. This information helps us calculate a baseline. Working closely with customer staff, we use this phase to set an implementation timeline that fits the customer’s schedule. We understand that your facilities cannot shut down for maintenance or installation work.

Our in-house experts from all phases of the project (business and project development, engineering, commissioning, construction, operations and maintenance, as well as measurement and verification) are involved throughout the process to ensure continuity.

When designing our solutions, we consider the long-term impact (optimal learning conditions, safety, first cost, equipment selection, operational cost, energy savings, and reliability) that a specific FIM will have on facilities, staff, and students. In an education environment, the impact to safety and the learning environment is equally important. In all cases, we prioritize our work around our customer’s needs and their budget.

We present final designs and detailed project schedules for review and collaboratively determine final selection of improvements for the project.

Custom Designed System

Each system we implement is custom designed for your facility. The assessments we perform and meetings we hold all provide information to the design team. This level of information helps the design engineers create the most effective system with your budget.

Past Experience with TIPS

Johnson Controls has responded to two previous TIPS RFQs and have performed dozens of projects for TIPS member entities through the system. Since 2013, we have completed or are currently performing work through various TIPS contracts at the following locations.

TIPS Member Entities	Project Year	TIPS Member Entities	Project Year
Brownsville Public Utilities Board <i>(1 project)</i>	2017	Leander Independent School District <i>(1 project)</i>	2017
Texas State Technical Colleges – All Campuses <i>(1 project)</i>	2017	Texas State Technical College – Marshall <i>(1 project)</i>	2016
Alamo Community College District <i>(4 projects)</i>	2017	New Caney Independent School District <i>(1 project)</i>	2016
Lake Worth Independent School District <i>(4 projects)</i>	2017	Deer Park Independent School District <i>(2 projects)</i>	2016

Del Mar College District (1 project)	2017	Education Service Center Region XVII (1 project)	2016
Alief Independent School District (10 projects)	2017	Katy Independent School District (47 projects)	2016
Columbia-Brazoria ISD (6 projects)	2017	Dallas County Community College (4 projects)	2015-2016
Harlingen TX (City Of) (1 project)	2017	Pulaski Technical College (PTC) (3 projects)	2014-2016
Mesquite ISD (1 project)	2017	University of Texas – Tyler (1 project)	2014-2016
Texas State University (12 projects)	2017-2018	Stephen F. Austin State University (4 projects)	2013-2016
Texas Southmost College (1 project)	2017		

Conflicts of Interest

Johnson Controls is not aware of any relationships that might be considered a conflict of interest when doing business with Members in the TIPS program.

Deviations of Terms

In the Attributes section of the TIPS bid system, we have noted the following deviations.

#75 Acts or Omissions

JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.

#83 Agreement Deviation/Compliance

In the **PRICING** section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls Fire and Security domain only.

In the **INDEMNITY** section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to

the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

The Interlocal Purchasing System (TIPS Cooperative) Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Rick Powell General Counsel/Procurement Compliance Officer	Address	Region VIII Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686	Address
Email	rick.powell@tips-usa.com	Contact	Kristie Collins, Contracts Compliance Specialist	Contact
Phone	(903) 575-2689			Department
Fax				Building
Bid Number	180203			Floor/Room
Title	Renewable Energy and Solar Solutions and Services (2 PART)	Department		Telephone
		Building		Fax
Bid Type	RFP			Email
Issue Date	2/1/2018 08:02 AM (CT)	Floor/Room		
Close Date	3/16/2018 03:00:00 PM (CT)	Telephone	+1 (866) 839-8477	
		Fax	+1 (866) 839-8472	
		Email	bids@tips-usa.com	

Supplier Information

Company Johnson Controls, Inc.
 Address 10600 Colonel Glenn Road
 Suite 200
 Little Rock, AR 72204
 Contact
 Department
 Building
 Floor/Room
 Telephone (866) 630-6791
 Fax
 Email
 Submitted 3/16/2018 09:11:25 AM (CT)
 Total \$0.00

By submitting your response, you certify that you are authorized to represent and bind your company.

Signature Andrew Pergande

Email Andrew.Pergande@jci.com

Supplier Notes

Bid Notes

This is a two part solicitation for 180203 Renewable Energy and Solar Solutions and Services. Part 1 is for equipment and services including installations that are not considered a public work and Part 2 is for installation services that are public work construction related projects, such as, but not limited to, electrical or plumbing requiring engineering.

Bid Activities

Bid Messages

Bid Attributes

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the "Response Attachments" D/M/WBE CERTIFICATES section.	No
2	Yes - No	Historically Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB as defined by the State of Texas at https://comptroller.texas.gov/purchasing/vendor/hub/ or in a HUBZone as defined by the US Small Business Administration at https://www.sba.gov/offices/headquarters/ohp Proof of one or both may be submitted. Vendor must upload proof of certification to the "Response Attachments" HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	Yes
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	We provide services in all 50 states.
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	Johnson Controls delivers products, services and solutions that increase energy efficiency and lower 'operating costs in buildings for more than one million customers. Operating from 500 branch offices in more than 150 countries, we are a leading provider of renewable technologies, equipment, controls, and services for heating, ventilating, air-conditioning, refrigeration and security systems. We have been involved in more than 500 renewable energy projects including solar, wind and geothermal technologies. Our solutions have reduced carbon dioxide emissions by 16 million metric tons and generated savings of \$7.5 billion since 2000. For additional information, please visit www.johnsoncontrols.com .
6	Primary Contact Name	Primary Contact Name	Andrew Pergande
7	Primary Contact Title	Primary Contact Title	Group Purchasing Organization Manager
8	Primary Contact Email	Primary Contact Email	Andrew.Pergande@jci.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937

10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-708-6722
12	Secondary Contact Name	Secondary Contact Name	Thomas Staves
13	Secondary Contact Title	Secondary Contact Title	Sales Manager
14	Secondary Contact Email	Secondary Contact Email	thomas.staves@jci.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-443-676-8813
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	N/A
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Andrew Pergande
19	Admin Fee Contact Email	Admin Fee Contact Email	Andrew.Pergande@jci.com
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Andrew Pergande
22	Purchase Order Contact Email	Purchase Order Contact Email	Andrew.Pergande@jci.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	1-414-524-6937
24	Company Website	Company Website (Format - www.company.com)	www.johnsoncontrols.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	39-0380010
26	Primary Address	Primary Address	5757 North Green Bay Avenue P. O. Box 591
27	Primary Address City	Primary Address City	Milwaukee
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	Wisconsin
29	Primary Address Zip	Primary Address Zip	53202
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	renewable energy, solar, solar photovoltaic, solar panel, microgrid, wind turbine, energy storage, geothermal heat pump, solar daylighting, biomass plant, solar thermal pool heating, solar thermal domestic water heating, solar transpired walls, battery power stationary storage, solar PV, thermal energy storage systems, ice storage, sewer heat recovery, waste heat recovery, biogas, wind power, solar power

31	Yes - No	Most of our members receive Federal Government grants and they make up a significant portion of their budgets. The members need to know if your company is willing to sell to them when they spend federal budget funds on their purchase. There are attributes that follow that are provisions from the federal regulations in 2 CFR part 200. Your answers will determine if your award will be designated as Federal or Education Department General Administrative Regulations (EDGAR)compliant. Is it your intent to be able to sell to our members regardless of the fund source, whether it be local, state or federal?	Yes
32	Yes - No	Certification of Residency (Required by the State of Texas) The vendor's ultimate parent company or majority owner: (A) has its principal place of business in Texas; OR (B) employs at least 500 persons in Texas?	Yes
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Milwaukee
34	Company Residence (State)	Vendor's principal place of business is in the state of?	Wisconsin
35	Felony Conviction Notice:	(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37) Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice: State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district or ESC 8/TIPS must give advance notice to the district or ESC 8/TIPS if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	Yes
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony?	No
38	If your firm is owned or operated by the following individual(s) who has/have been convicted of a felony:	Please provide details of the conviction. This is not necessarily a disqualifying factor and the details of the conviction determines the eligibility. Providing false or misleading information about the conviction is illegal.	N/A
39	Pricing Information:	Pricing information section. (Questions 39 - 43)	(No Response Required)

40	Discount Offered	What is the MINIMUM percentage discount off of any item or service you offer to TIPS Members that is in your regular catalog (as defined in the RFP document), website, store or shelf pricing? This is a ceiling on your pricing and not a floor because, in order to be more competitive in the individual circumstance, you may offer a larger discount depending on the items or services purchased and the quantity at time of sale. Must answer with a number between 0% and 100%.	5%
41	TIPS administration fee	By submitting a proposal, I agree that all pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing and shall be remitted to TIPS by the Vendor as agreed in the Vendor agreement. I agree that the fee shall not and will not be added by the vendor as a separate line item on a TIPS member invoice, quote, proposal or any other written communications with the TIPS member.	(No Response Required)
42	Yes - No	Vendor agrees to remit to TIPS the required administration fee? TIPS/ESC Region 8 is required by Texas Government Code § 791 to be compensated for its work and thus, failure to agree shall render your response void and it will not be considered.	Yes
43	Yes - No	Do you offer additional discounts to TIPS members for large order quantities or large scope of work?	No
44	Start Time	Average start time after receipt of customer order is ____ working days?	15
45	Years Experience	Company years experience in this category?	117
46	Resellers:	Does the vendor have resellers that it will name under this contract? Resellers are defined as other companies that sell your products under an agreement with you, the awarded vendor of TIPS. EXAMPLE: Walmart is a reseller of Samsung Electronics. If Samsung were a TIPS awarded vendor, then Samsung would list Walmart as a reseller. (If applicable, vendor should download the Reseller/Dealers spreadsheet from the Attachments section, fill out the form and submit the document in the "Response Attachments" RESELLERS section.	No
47	Prices are guaranteed for?	Vendor agrees to honor the pricing discount off regular catalog (as defined in the RFP document), website, store or shelf pricing for the term of the award?	YES
48	Right of Refusal	Does the proposing vendor wish to reserve the right not to perform under the awarded agreement with a TIPS member at vendor's discretion?	Yes

49 NON-COLLUSIVE BIDDING CERTIFICATE

By submission of this bid or proposal, the Bidder certifies that: (No Response Required)

- 1) This bid or proposal has been independently arrived at without collusion with any other Bidder or with any Competitor;
- 2) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other Bidder, Competitor or potential competitor;
- 3) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal;
- 4) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the Bidder as well as to the person signing in its behalf. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.

50 Texas HB 89- Texas Government code §2270 compliance

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq. YES

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I verify by my "YES" response to this attribute that, as a company submitting a proposal to this solicitation, that I am authorized to respond for the company and affirm that the company (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that TIPS will be notified in writing by email to TIPS@TIPS-USA.com within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall result in a "no award" determination by TIPS and if a contract exists with TIPS, be grounds for immediate contract termination without penalty to TIPS and Education Service Center Region 8.

FAILURE TO RESPOND "YES" WILL RESULT IN NO CONSIDERATION OF YOUR PROPOSAL.

I swear and affirm that the above is true and correct by a "YES" response.

- 51 CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ If you have a conflict of interest as described in this form or the Local Government Code Chapter 176, cited therein- you are required to complete and file with TIPS, Richard Powell, 4845 US Highway 271 North, Pittsburg, Texas 75686 No
- You may find the Blank CIQ form on our website at:
- Copy and Paste the following link into a new browser or tab:
<https://www.tips-usa.com/assets/documents/docs/CIQ.pdf>
- Do you have any conflicts under this statutory requirement?
- 52 Filing of Form CIQ If yes (above), have you filed a form CIQ as directed here?
- 53 Regulatory Standing I certify to TIPS for the proposal attached that my company is in good standing with all governmental agencies Federal or state that regulate any part of our business operations. If not, please explain in the next attribute question. Yes
- 54 Regulatory Standing Regulatory Standing explanation of no answer on previous question. N/A
- 55 Antitrust Certification Statements (Tex. Government Code § 2155.005) By submission of this bid or proposal, the Bidder certifies that:

I affirm under penalty of perjury of the laws of the State of Texas that:
(1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
(2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
(3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law;
(4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company. (No Response Required)

Instructions for Certification:

1. By agreeing to the Attribute question #56, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this

transaction originated may pursue available remedies, including suspension and / or debarment.

57 Suspension or Debarment Certification

Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

By submitting this offer and certifying this section, this bidder:
Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract as described above.

58 Non-Discrimination Statement and Certification

In accordance with Federal civil rights law, all U.S. Departments, including the U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. (Title VI of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title 7 CFR Parts 15, 15a, and 15b; the Americans with Disabilities Act; and FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities) All U.S. Departments, including the USDA are equal opportunity provider, employer, and lender.

Not a negotiable term. Failure to agree will render your

proposal non-responsive and it will not be considered. I certify that in the performance of a contract with TIPS or its members, that our company will conform to the foregoing anti-discrimination statement and comply with the cited and all other applicable laws and regulations.

59 2 CFR PART 200 Contract Provisions Explanation

Required Federal contract provisions of Federal Regulations for Contracts for contracts with ESC Region 8 and TIPS Members:

(No Response Required)

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The ESC Region 8 and TIPS Members are the subgrantee or Subrecipient by definition. Most of the provisions are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200. Others are included within 2 CFR part 200 et al.

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

60 2 CFR PART 200 Contracts

Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.
Does vendor agree?

Yes

61 2 CFR PART 200 Termination

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

Yes

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.
Does vendor agree?

62	2 CFR PART 200 Clean Air Act	<p>Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p> <p>Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.</p> <p>Does vendor agree?</p>	Yes
63	2 CFR PART 200 Byrd Anti-Lobbying Amendment	<p>Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies to the terms included or referenced herein.</p> <p>Does vendor agree?</p>	Yes
64	2 CFR PART 200 Federal Rule	<p>Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$100,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).</p> <p>Does vendor certify that it is in compliance with the Clean Air Act?</p>	Yes

65	2 CFR PART 200 Procurement of Recovered Materials	<p>A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with</p> <p>maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.</p> <p>Does vendor certify that it is in compliance with the Solid Waste Disposal Act as described above?</p>	Yes
66	Indemnification	<p>The ESC Region 8 and TIPS is a Texas Political Subdivision and a local governmental entity; therefore, is prohibited from</p> <p>indemnifying third parties pursuant to the Texas Constitution (Article 3, Section 52) except as specifically provided by law or as</p> <p>ordered by a court of competent jurisdiction. A provision in a contract to indemnify or hold a party harmless is a promise to pay for</p> <p>any expenses the indemnified party incurs, if a specified event occurs, such as breaching the terms of the contract or negligently</p> <p>performing duties under the contract. Article III, Section 49 of the Texas Constitution states that "no debt shall be created by or on</p> <p>behalf of the State ... " The Attorney General has counseled that a contractually imposed obligation of indemnity creates a "debt" in</p> <p>the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Contract clauses which require the System or institutions to</p> <p>indemnify must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas." Liquidated</p> <p>damages, attorney's fees, waiver of vendor's liability, and waiver of statutes of limitations clauses should also be deleted or qualified</p> <p>with "to the extent permitted by the Constitution and laws of State of Texas."</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree</p> <p>to these terms?</p>	Yes

67	Remedies	<p>The parties shall be entitled to exercise any right or remedy available to it either at law or in equity, subject to the choice of law, venue and service of process clauses limitations agreed herein. Nothing in this agreement shall commit the TIPS to an arbitration resolution of any disagreement under any circumstances. Any Claim arising out of or related to the Contract, except for those specifically waived under the terms of the Contract, may, after denial of the Board of Directors, be subject to mediation at the request of either party. Any issues not resolved hereunder must be referred to non-binding mediation to be conducted by a mutually agreed upon mediator as a prerequisite to the filing of any lawsuit over such issue(s). The parties shall share the mediator's fee and any associated filing fee equally. Mediation shall be held in Camp or Titus County, Texas. Agreements reached in mediation shall be reduced to writing, and will be subject to the approval by the District's Board of Directors, signed by the Parties if approved by the Board of Directors, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Texas.</p> <p>Do you agree to these terms?</p>	Yes, I Agree
68	Remedies Explanation of No Answer		
69	Choice of Law	<p>This agreement and any addenda or other additions and all contracts or awards resulting from this procurement process, however described, shall be governed by, construed and enforced in accordance with the laws of the State of Texas, regardless of any conflict of laws principles.</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?</p>	Yes
70	Jurisdiction and Service of Process	<p>Any Proceeding arising out of or relating to this procurement process or any contract issued by TIPS resulting from or any contemplated transaction shall be brought in a court of competent jurisdiction in Camp County, Texas and each of the parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the Proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction in any other court. The parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the parties irrevocably to waive any objections to venue or to convenience of forum. Process in any Proceeding referred to in the first sentence of this Section may be served on any party anywhere in the world. Venue clauses in contracts with TIPS members may be determined by the parties.</p>	Yes

Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?

71	Alternative Dispute Resolution	Prior to filing of litigation, the parties may select non-binding mediation as a method of conflict resolution for issues arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction. The parties agree that if nonbinding mediation is chosen as a resolution process, the parties must agree to the chosen mediator(s) and that all mediation venue shall be at a location in Camp or Titus, County, Texas agreed by the parties. The parties agree to share equally the cost of the mediation process and venue cost. Do you agree to these terms?	Yes, I Agree
72	Alternative Dispute Resolution Explanation of No Answer		
73	Infringement(s)	The successful vendor will be expected to indemnify and hold harmless the TIPS and its employees, officers, agents, representatives, contractors, assignees and designees from any and all third party claims and judgments involving infringement of patent, copyright, trade secrets, trade or service marks, and any other intellectual or intangible property rights attributed to or claims based on the Vendor's proposal or Vendor's performance of contracts awarded and approved. Do you agree to these terms?	Yes, I Agree
74	Infringement(s) Explanation of No Answer		
75	Acts or Omissions	The successful vendor will be expected to indemnify and hold harmless the TIPS, its officers, employees, agents, representatives, contractors, assignees and designees from and against any and all liability, actions, claims, demands or suits, and all related costs, attorney's fees and expenses arising out of, or resulting from any acts or omissions of the vendor or its agents, employees, subcontractors, or suppliers in the execution or performance of any agreements ultimately made by TIPS and the vendor. Do you agree to these terms?	No
76	Acts or Omissions Explanation of No Answer		JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.
77	Contract Governance	Any contract made or entered into by the TIPS is subject to and is to be governed by Section 271.151 et seq, Tex Loc Gov't Code. Otherwise, TIPS does not waive its governmental immunities from suit or liability except to the extent expressly waived by other applicable laws in clear and unambiguous language.	Yes

78 Payment Terms and Funding Out Clause

Payment Terms:
TIPS or TIPS members shall not be liable for interest or late payment fees on past due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Yes

Funding Out Clause:
Vendor agrees to abide by the laws and regulations, including Texas Local Government Code § 271.903, or any statutory or regulatory limitations of the jurisdiction of any TIPS Member which governs contracts entered into by the Vendor and TIPS or a TIPS Member that requires all contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.
See statute(s) for specifics or consult your legal counsel. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.
Do you agree to these terms?

79 Insurance and Fingerprint Requirements Information

Insurance
If applicable and your staff will be on TIPS member premises for delivery, training or installation etc. and/or with an automobile, you must carry automobile insurance as required by law. You may be asked to provide proof of insurance.

Fingerprint
It is possible that a vendor may be subject to Chapter 22 of the Texas Education Code. The Texas Education Code, Chapter 22, Section 22.0834. Statutory language may be found at: <http://www.statutes.legis.state.tx.us/>
If the vendor has staff that meet both of these criterion:
(1) will have continuing duties related to the contracted services; and
(2) has or will have direct contact with students
Then you have "covered" employees for purposes of completing the attached form.
TIPS recommends all vendors consult their legal counsel for guidance in compliance with this law. If you have questions on how to comply, see below. If you have questions on compliance with this code section, contact the Texas Department of Public Safety Non-Criminal Justice Unit, Access and Dissemination Bureau, FAST-FACT at NCJU@txdps.state.tx.us and you should send an email identifying you as a contractor to a Texas Independent School District or ESC Region 8 and TIPS. Texas DPS phone number is (512) 424-2474.
See form in the next attribute to complete entitled: Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

(No Response Required)

80 Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

Introduction: Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district.

Definitions: Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students. Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school:

(a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

I certify that:

NONE (Section A) of the employees of Contractor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

OR

SOME (Section B) or all of the employees of Contractor and any subcontractor are covered employees. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.

(3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees.

(4) If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

81 Solicitation Deviation/Compliance

Does the vendor agree with the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation? Yes

82 Solicitation Exceptions/Deviations Explanation

If the bidder intends to deviate from the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation, all such deviations must be listed on this attribute, with complete and detailed conditions and information included or attached.

TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any bid based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Standard Terms and Conditions, Item Specifications, and all other information contained in this Solicitation.

83 Agreement Deviation/Compliance

Does the vendor agree with the language in the Vendor Agreement? No

If the proposing Vendor desires to deviate from the Vendor Agreement language, all such deviations must be listed on this attribute, with complete and detailed conditions and information included. TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any proposal based upon any deviations indicated below. In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Vendor Agreement.

In the PRICING section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls HVAC domain only.

In the INDEMNITY section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.

85 Texas Business and Commerce Code § 272
Requirements as of 9-1-2017

SB 807 prohibits construction contracts to have provisions requiring the contract to be subject to the laws of another state, to be required to litigate the contract in another state, or to require arbitration in another state. A contract with such provisions is voidable. Under this new statute, a "construction contract" includes contracts, subcontracts, or agreements with (among others) architects, engineers, contractors, construction managers, equipment lessors, or materials suppliers. "Construction contracts" are for the design, construction, alteration, renovation, remodeling, or repair of any building or improvement to real property, or for furnishing materials or equipment for the project. The term also includes moving, demolition, or excavation. BY RESPONDING TO THIS SOLICITATION, AND WHEN APPLICABLE, THE PROPOSER AGREES TO COMPLY WITH THE TEXAS BUSINESS AND COMMERCE CODE § 272 WHEN EXECUTING CONTRACTS WITH TIPS MEMBERS THAT ARE TEXAS GOVERNMENT ENTITIES. (No Response Required)

Line Items

Response Total: \$0.00

REFERENCES

Please provide three (3) references, preferably from school districts or other governmental entities who have used your services within the last three years. Additional references may be required. DO NOT INCLUDE TIPS EMPLOYEES AS A REFERENCE.

You may provide more than three (3) references.

Entity Name	Contact Person	Email	Phone
San Joaquin County Office of Education	Mr. Ronald Estes, Division Director, Operations and Support Services	restes@sjcoe.net	209-468-9061
Mount Wachusett Community College	Bill Swift, Director of Maintenance and Mechanical Systems	W_Swift@mwcc.mass.edu	978-630-9267
Case Western Reserve University	Chris Wilson, Director of Facilities	ckw39@case.edu	216-368-5093

Certification Regarding Lobbying

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds.

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Johnson Controls, Inc.

5757 North Green Bay Ave., P.O. Box 591, Milwaukee, WI 53201

Name/Address of Organization

Brandon Jackson, Vice President of Branch Sales

Name/Title of Submitting Official

Signature

3/9/2018

Date

FELONY CONVICTION NOTICE

FOR RESPONSE TO TIPS SOLICITATION

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice:

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

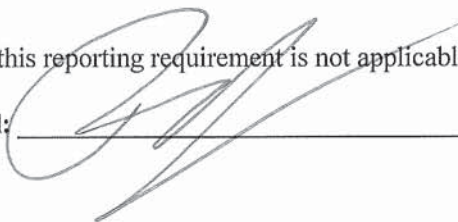
THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION

Complete only one of the three below: A or B or C.

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Official: Brandon Jackson
_____ **Print Authorized Company Official's Name**

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

Signature of Authorized Company Official: _____


OR

B. My firm is not owned nor operated by anyone who has been convicted of a felony:

Signature of Authorized Company Official: _____

OR

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): _____

Details of Conviction(s): _____

You may attach another sheet

Signature of Authorized Company Official: _____

CERTIFICATION BY CORPORATE OFFERER

IF OFFERER IS A CORPORATION,
THE FOLLOWING CERTIFICATE SHOULD BE EXECUTED AND INCLUDED AS PART OF
PROPOSAL FORM/PROPOSAL FORM.

OFFERER: Johnson Controls, Inc.
(Name of Corporation)

I, Michael R. Peterson certify that I am the ^{Assistant} Secretary of the Corporation
(Name of Corporate Secretary)

named as OFFERER herein above; that

Brandon Jackson
(Name of person who completed proposal document)

who signed the foregoing proposal on behalf of the corporation offerer is the authorized person that is acting as

Vice President of Branch Sales
(Title/Position of person signing proposal/offer document within the corporation)

of the said Corporation; that said proposal/offer was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

CORPORATE SEAL if available


SIGNATURE

March 13, 2018
DATE

Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

The Education Service Center Region 8 and TIPS Members anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

1. Will you be subcontracting any of your work under this award if you are successful? (Circle one)

YES or NO

2. If yes, do you agree to comply with the following federal requirements? (Circle one)

YES or NO

2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

Texas Government Code 2270 Verification Form

Texas 2017 House Bill 89 has been signed into law by the governor and as of September 1, 2017 will become law codified as Texas Government Code § 2270 and 808 et seq.

The relevant section addressed by this form reads as follows:

Texas Government Code Sec. 2270.002. PROVISION REQUIRED IN CONTRACT. A governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

I, Brandon Jackson as an authorized representative of

Johnson Controls, Inc., a contractor/vendor

Insert Name of Company

engaged by

ESC Region 8/The Interlocal Purchasing System (TIPS)
4845 Highway 271 North
Pittsburg, TX, 75686

verify by this writing that the above-named company affirms that it (1) does not boycott Israel; and (2) will not boycott Israel during the term of this contract, or any contract with the above-named Texas governmental entity in the future. I further affirm that if our company's position on this issue is reversed and this affirmation is no longer valid, that the above-named Texas governmental entity will be notified in writing within one (1) business day and we understand that our company's failure to affirm and comply with the requirements of Texas Government Code 2270 et seq. shall be grounds for immediate contract termination without penalty to the above-named Texas governmental entity.

AND

our company is not listed on and we do not do business with companies that are on the the Texas Comptroller of Public Accounts list of Designated Foreign Terrorists Organizations per Texas Gov't Code 2270.0153 found at <https://comptroller.texas.gov/purchasing/docs/foreign-terrorist.pdf>

I swear and affirm that the above is true and correct.


Signature of Named Authorized Company Representative

3/9/2018

Date

**Required Federal contract provisions of Federal Regulations for Construction Contracts
for contracts with TIPS OR TIPS MEMBERS**

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The TIPS OR TIPS MEMBERS is the subgrantee or Subrecipient by definition. The Rules are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (D) above, when federal funds are expended by TIPS OR TIPS MEMBERS, during the term of an award for all contracts and subgrants for construction or repair, when Federal Funds are expended, by the TIPS OR TIPS MEMBERS resulting for this procurement process the vendor will be in compliance with all provisions listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be

required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule above, when federal funds are expended by TIPS or TIPS Members, the proposer certifies that during the term of an award by the TIPS OR TIPS MEMBERS resulting from this procurement process for construction contracts awarded by grantees and subgrantees the proposer agrees to be in compliance with all requirements listed or referenced therein.

Does vendor agree? YES BJ Initial of Authorized Company Official

Company Name Johnson Controls, Inc.

Print name of authorized representative Brandon Jackson

Signature of authorized representative 

Date 3/9/2018

FAILURE TO PROPERLY COMPLETE THIS FORM AND SUBMIT WITH YOUR RESPONSE MAY RESULT IN A WAIVER OF YOUR RIGHTS UNDER THE LAW TO MAINTAIN CONFIDENTIALITY TREATMENT OF SUBMITTED MATERIALS.

CONFIDENTIAL INFORMATION SUBMITTED IN RESPONSE TO COMPETITIVE PROCUREMENT REQUESTS OF EDUCATION SERVICE CENTER REGION 8 AND TIPS IS GOVERNED BY TEXAS GOVERNMENT CODE, CHAPTER 552

If you consider any portion of your proposal to be confidential information and not subject to public disclosure pursuant to Chapter 552 Tex Gov't Code or other law(s), you **must** make a **copy** of all claimed confidential materials within your proposal and put this **COMPLETED** form as a cover sheet to said materials then scan, name "CONFIDENTIAL" and upload with your proposal submission. (You must include the confidential information in the submitted proposal as well, the copy uploaded is to indicate which material in your proposal, if any, you deem confidential in the event the District receives a Public Information Request.) Education Service Center Region 8 and TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law. Pricing of solicited product or service may be deemed as public information under Chapter 552 Tex Gov't Code. The Office of Texas Attorney General shall make the final determination whether the information held by Education Service Center Region 8 and TIPS is confidential and exempt from public disclosure.

If you claim that parts of your proposal are confidential, complete the top section below.

I DO NOT desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS. The attached contains material from our proposal that I classify and deem confidential under Texas Gov't Code Sec. 552 or other law(s) and I invoke my statutory rights to confidential treatment of the enclosed materials.

Name of company claiming confidential status of material

Printed Name and Title of authorized company officer claiming confidential status of material

City State ZIP Phone Address

ATTACHED ARE COPIES OF _____ PAGES OF CONFIDENTIAL MATERIAL FROM OUR PROPOSAL

Signature _____ Date _____

If you do not claim any of your proposal to be confidential, complete the section below only.

Express Waiver: I desire to expressly waive any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS.
Johnson Controls, Inc.

Name of company expressly waiving confidential status of material

Brandon Jackson, Vice President of Branch Sales

Printed Name and Title of authorized company officer expressly waiving confidential status of material

5757 North Green Bay Ave., PO Box 591, Milwaukee, WI 53201 1-414-524-1200

City State ZIP Phone Address

Signature _____ Date 3/9/2018

Typical Warranty Terms

Warranty terms vary. The following sample text shows our standard warranty terms. Extended or customized warranty terms are negotiable.

Parts Warranty: JCI warrants that original equipment, parts or components manufactured or labeled by JCI shall be free from defects in material and workmanship under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment. Equipment, parts or components not manufactured or labeled by JCI shall carry a warranty from defects in material and workmanship under normal usage and proper installation and maintenance for a period of ninety (90) days from the date of shipment. Notwithstanding the foregoing, in the event JCI is reasonably able to identify a warranty for a period longer than the ninety (90) days applicable to equipment, parts or components not manufactured or labeled by JCI, it will assign all assignable rights under such warranty to Customer and reasonably cooperate in the enforcement of any warranty claim. Recertified or replacement parts installed on equipment and still under the original equipment manufacturer's warranty are covered for ninety (90) days or the remainder of the original equipment manufacturer warranty period, whichever is longer. For large tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: screw compressors, motors, control panels and components, VFD's and components and Liquid Cooled Solid State Starters and components. For small tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: scroll compressors, condenser coils, control panels and components, screw compressors (DXS and Mustang), and fan motors. In the event of a valid warranty claim, the Customer's remedy shall, at JCI's sole discretion and subject to the exclusions herein, be limited to repair or replacement of the subject equipment, part or component conditioned upon the return to JCI of any defective equipment, part or component. This Parts Warranty does not cover any shipping, handling or transportation charges or any associated labor costs.

Labor Warranty: JCI warrants its workmanship or that of its agents in relation to installation of materials for a period of ninety (90) days from date of installation or with respect to service work for a period of ninety (90) days from the date of service. Customer acknowledges that re-performance shall be its exclusive and only remedy with regards to any services provided by JCI. Customer shall bear all labor costs associated with the repair or replacement of failed material that is outside the scope of this express labor warranty. All warranty labor shall be executed during JCI normal business hours.

These warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.

THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. UNDER NO CIRCUMSTANCES SHALL JCI BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO ANY DEFECT IN MATERIAL OR WORKMANSHIP OF EQUIPMENT OR THE PERFORMANCE OF SERVICES.

The following table provides an FAQ to our warranty terms.

Question	Information
Do your warranties cover all products, parts, and labor?	There is a parts warranty and a typically a manufacturer warranty that is passed on to the customer. Additionally there is a labor warranty provided by Johnson Controls
Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	The warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.
Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	Yes.
Are there any geographic regions of the United States for which you cannot provide a certified technician to perform warranty repairs?	We can provide warranty repairs in all geographic regions.
Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	We pass all manufacturer warranties on to the customer. If requested and negotiated into the contract, we can cover a manufacturer warranty or enable the customer to buy an extended warranty.
What are your proposed exchange and return programs and policies?	<p>If we are in the installation phase and the requested change is similar in price and operation to the planned equipment, we will make the change as requested.</p> <p>If the change is less expensive, we will refund the difference to the customer.</p> <p>If the change is more expensive, we implement the change with a formal Change Order.</p>



HUB Subcontracting Plan (HSP) QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

- If you will be awarding all of the subcontracting work you have to offer under the contract to only Texas certified HUB vendors, complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors

Section 2 c. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less meets or exceeds the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - Yes

Section 4 - Affirmation

GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you have a continuous contract in place for five (5) years or less does not meet or exceed the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - Yes, I will be subcontracting portions of the contract

Section 2 b. - List all the portions of work you will subcontract, and indicated the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors

Section 2 c. - No

Section 2 d. - No

Section 4 - Affirmation

GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.

- If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources, complete:

Section 1 - Respondent and Requisition Information

Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources

Section 3 - Self Performing Justification

Section 4 - Affirmation

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.



HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.13 are:

- **11.2 percent for heavy construction other than building contracts,**
- **21.1 percent for all building construction, including general contractors and operative builders' contracts,**
- **32.9 percent for all special trade construction contracts,**
- **23.7 percent for professional services contracts,**
- **26.0 percent for all other services contracts, and**
- **21.1 percent for commodities contracts.**

- - Agency Special Instructions/Additional Requirements - -

In accordance with 34 TAC §20.14(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only contracts that have been in place for five years or less shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.

SECTION-1: RESPONDENT AND REQUISITION INFORM

- a. Respondent (Company) Name: _____ State of Texas VID #: _____
 Point of Contact: _____ Phone #: _____
 E-mail Address: _____ Fax #: _____
- b. Is your company a State of Texas certified HUB? - Yes - No
- c. Requisition #: _____ Bid Open Date: _____
(mm/dd/yyyy)

Enter your company's name here: _____ Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, including goods and services, will be subcontracted. Note: In accordance with 34 TAC §20.11., an "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

- a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:
- **Yes**, I will be subcontracting portions of the contract. (If **Yes**, complete Item b, of this SECTION and continue to Item c of this SECTION.)
 - **No**, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources. (If **No**, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for five (5) years or less.	Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for more than five (5) years.	Percentage of the contract expected to be subcontracted to non-HUBs.
1		%	%	%
2		%	%	%
3		%	%	%
4		%	%	%
5		%	%	%
6		%	%	%
7		%	%	%
8		%	%	%
9		%	%	%
10		%	%	%
11		%	%	%
12		%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at <http://window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/>).

- c. Check the appropriate box (Yes or No) that indicates whether you will be using **only** Texas certified HUBs to perform **all** of the subcontracting opportunities you listed in SECTION 2, Item b.
- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to Item d, of this SECTION.)
- d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract **with Texas certified** HUBs with which you have a **continuous contract*** in place with for five (5) years or less **meets or exceeds** the HUB goal the contracting agency identified on page 1 in the "**Agency Special Instructions/Additional Requirements**".
- **Yes** (If **Yes**, continue to SECTION 4 **and** complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)
 - **No** (If **No**, continue to SECTION 4 **and** complete an "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed.)

***Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.

Enter your company's name here: _____

Requisition #: _____

SECTION-2: SUBCONTRACTING INTENTIONS RESPONDENT (CONTINUATION SHEET)

a. This page can be used as a continuation sheet to the HSP Form's page 2, Section 2, Item b. Continue listing the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for five (5) years or less.	Percentage of the contract expected to be subcontracted to HUBs with which you have a <u>continuous contract</u> * in place for more than five (5) years.	Percentage of the contract expected to be subcontracted to non-HUBs.
16		%	%	%
17		%	%	%
18		%	%	%
19		%	%	%
20		%	%	%
21		%	%	%
22		%	%	%
23		%	%	%
24		%	%	%
25		%	%	%
26		%	%	%
27		%	%	%
28		%	%	%
29		%	%	%
30		%	%	%
31		%	%	%
32		%	%	%
33		%	%	%
34		%	%	%
35		%	%	%
36		%	%	%
37		%	%	%
38		%	%	%
39		%	%	%
40		%	%	%
41		%	%	%
42		%	%	%
43		%	%	%
Aggregate percentages of the contract expected to be subcontracted:		%	%	%

**Continuous Contract: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: Johnson Controls, Inc

Requisition #: 180203

SECTION 3: SELF PERFORMING JUSTIFICATION (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4)

Check the appropriate box (Yes or No) that indicates whether your response/proposal contains an explanation demonstrating how your company will fulfill the entire contract with its own resources.

- **Yes** (If **Yes**, in the space provided below **list the specific page(s)/section(s)** of your proposal which explains how your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)
- **No** (If **No**, in the space provided below **explain how** your company will perform the entire contract with its own equipment, supplies, materials and/or employees.)

SECTION 4: AFFIRMATION

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.

	Brandon Jackson	Vice President of Branch Sales	3/4/2018
Signature	Printed Name	Title	Date <small>(mm/dd/yyyy)</small>

Reminder:

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.

HSP Good Faith Effort - Method B (Attachment B)

Enter your company's name here: _____	Requisition #: _____
---------------------------------------	----------------------

IMPORTANT: If you responded "Yes" to SECTION 2, Items c or d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION B-2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If *Yes*, to continue to SECTION B-4.)
- No / Not Applicable (If *No* or *Not Applicable*, continue to SECTION B-3 and SECTION B-4.)

SECTION B-3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you MUST comply with items a, b, c and d, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to your submitting your bid response to the contracting agency. When searching for Texas certified HUBs, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) and Historically Underutilized Business (HUB) Search directory located at <http://mycpa.state.tx.us/tpasscmblsearch/index.jsp>. HUB Status code "A" signifies that the company is a Texas certified HUB.
- b. List the three (3) Texas certified HUBs you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Vendor ID (VID) number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	VID Number	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
			- Yes - No
			- Yes - No
			- Yes - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.

- d. List two (2) trade organizations or development centers you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		- Yes - No
		- Yes - No

HSP Good Faith Effort - Method B (Attachment B) Cont.

Enter your company's name here: _____ Requisition #: _____

SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: Description:

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in SECTION B-1. Also identify whether they are a Texas certified HUB and their VID number, the approximate dollar value of the work to be subcontracted, the expected percentage of work to be subcontracted, and indicate whether the company is a Texas certified HUB.

Company Name	Texas certified HUB	VID Number <small>(Required if Texas certified HUB)</small>	Approximate Dollar Amount	Expected Percentage of Contract
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%
	- Yes - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in SECTION B-1 is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

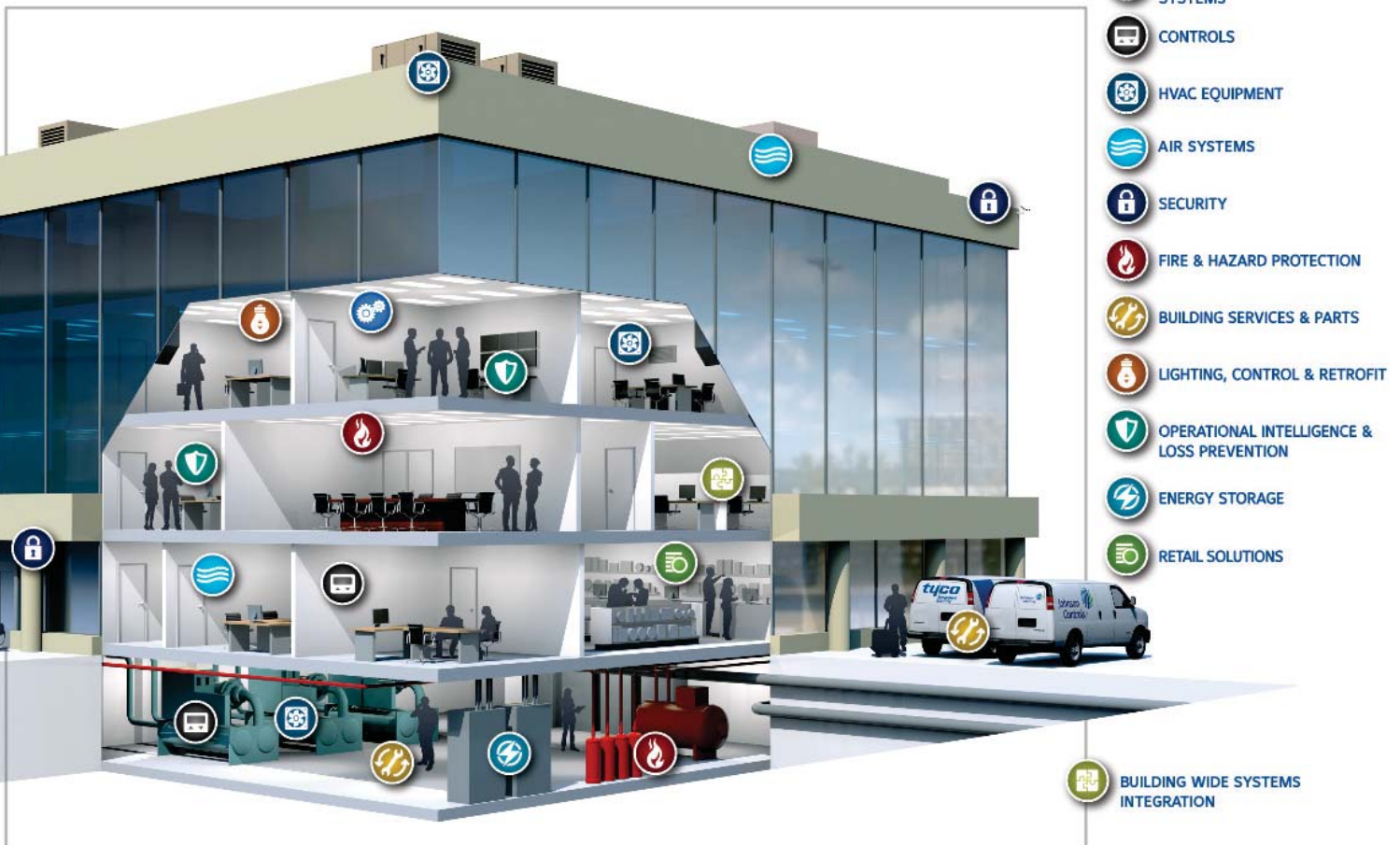
REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

SMARTER, SAFER, MORE SUSTAINABLE
BUILDINGS AND CITIES.



TAKE ADVANTAGE OF A BROADER RANGE OF CAPABILITIES.

Johnson Controls now provides a wider spectrum of innovative products, expert installation and services, and systems integration to help improve operational and energy outcomes for customers worldwide.



HVAC EQUIPMENT

Draw on the most comprehensive HVAC portfolio for commercial and residential buildings of all types, ages and sizes to enhance sustainability, energy use and the indoor environment.

- Chillers—air-cooled; water-cooled; connected
- Condensers and condensing units
- Dedicated outdoor air systems (DOAS)
- Duct-free mini-split systems
- Indoor packaged equipment
- Rooftop units
- Variable refrigerant flow (VRF) systems

SECURITY

Help protect and enhance working and living environments today and tomorrow with integrated, customer-specific solutions from the world's leading security company.

- 24/7 remote monitoring
- Access control
- Advanced video surveillance
- Intrusion detection
- Managed services

CONTROLS

Equip facilities with intelligent HVAC controls to keep occupants comfortable, run equipment efficiently and optimize operating budgets.

- Actuators
- Control panels
- Control sensors
- Current sensors and transducers
- Thermostats
- Valves
- Variable speed drives

FIRE, LIFE-SAFETY & HAZARD PROTECTION

Help keep people and assets safe with comprehensive solutions, design, installation, service and monitoring from a world leading fire and life-safety systems provider.

- Fire alarm systems
- Fire sprinkler systems
- Fire suppression systems
- Mass notification systems
- Special hazard solutions

OPTIMIZATION & RETROFIT SERVICES

Make the most of existing building and financial assets through cost-effective upgrades, central plant strategies, and financing solutions.

- Central chiller plant optimization
- Clean energy assessments
- Energy performance contracts
- Energy retrofits
- Equipment financing
- Healthcare environment optimization
- Public/private partnerships
- Technology refresh services
- Turnkey upgrades and retrofits

LIGHTING CONTROLS & RETROFIT

Save energy, minimize costs and meet organizational goals with a range of services, from business remodels, to new construction lighting design, to municipal street lights.

- Lighting retrofits
- Street and roadway lighting
- Turn-key lighting upgrades

ENERGY STORAGE

Rely on our innovative distributed energy storage products to better manage energy use, cut costs and ensure electrical back-up for a building, campus or enterprise.

- In-building distributed energy storage system
- Modular distributed energy storage system

RETAIL SOLUTIONS

Gain real-time insights into retail facilities, inventories, employees & customers to achieve maximum business performance in a digitally driven shopping world.

- Loss Prevention
- Inventory Intelligence
- Traffic Insights

OPERATIONAL INTELLIGENCE & LOSS PREVENTION

Helps minimize costs, maximize operational performance and enhance return on investment in security programs with business intelligence solutions.

- Information management solutions
- Real-time location systems (RTLS) for asset management
- Video and traffic analytics

BUILDING SERVICES & PARTS

Tap into resources of the industry's largest service network for HVAC, security and life-safety system installation and product support. More than 12,000 technicians working out of nearly 500 local offices can provide 24x7x365 proactive monitoring, remote and on-site service and repair, and replacement parts.

- Aftermarket parts
- Building remote monitoring
- Building system and HVAC repair
- Planned and preventive maintenance
- Predictive and diagnostic services
- Security and life-safety system repair

BUILDING AUTOMATION SYSTEMS

Connect commercial HVAC, lighting, security and protection systems on one platform. Vital data and insights improve efficiency, productivity, and occupants' comfort and safety.

- Metasys® building automation system
- Metasys Enterprise Optimization applications

AIR SYSTEMS

Use efficient air flow building-wide to create healthy, comfortable and visually appealing environments that increase work productivity and occupant satisfaction.

- Air handling units
- Air measuring
- Chilled beams
- Dampers
- EcoAdvance™ HVAC load reduction (HLR) module
- Energy recovery ventilators
- Fan and blower
- Fans
- Filtration
- Grilles and diffusers
- Heating coils and cooling coils
- Louvers
- Under floor air distribution
- Unit ventilators
- Variable air volume (VAV) terminals
- Variable speed drives

BUILDING WIDE SYSTEMS INTEGRATION

Construct a smarter building by converging building, business/IT and specialty systems on an intelligent infrastructure. Let us streamline the process to measurably improve initial and lifecycle costs, enhance function, ensure connectivity and create an innovative, optimized, sustainable environment.



MEET THE WORLD LEADER IN
**INTEGRATED BUILDING TECHNOLOGY
AND ENERGY STORAGE.**

Bringing you the best of Johnson Controls.

More comprehensive products, technologies and services.

More innovation and efficiency over the life of a facility.

More holistic, integrated solutions to help make buildings, campuses and cities increasingly safe, smart and sustainable.

DISCOVER COMPLETE, CONNECTED SOLUTIONS TO HELP

BUILDING SYSTEMS, SERVICES & SOLUTIONS

SERVICES & SOLUTIONS



MAINTENANCE & REPAIR SERVICES

With 418 locations and more than 12,000 highly skilled technicians across North America, we help facilities perform at optimum levels, extend asset life, reduce repair costs, and realize energy savings.



BUILDING WIDE SYSTEMS INTEGRATION (BWSI)

We integrate building systems (HVAC, BAS, security), business systems (finance, IT, communications) and specialty systems (nurse call, distance learning, scheduling) onto a unified, intelligent infrastructure.



TECHNOLOGY CONTRACTING™

We are responsible for managing design, integration, installation and service of all technology. Along with innovative partners, we reduce risk, minimize change orders and meet budgets and deadlines.



ENERGY SOLUTIONS

We assess facilities and design a plan to prioritize repairs, upgrade equipment, reduce energy use and improve overall efficiency. Use tomorrow's energy savings to pay for today's upgrades.

OPTIMIZATION



CENTRAL PLANT OPTIMIZATION (CPO 10 / CPO 30)

CPO 10 uses standardized software in *Metasys* to leverage ASHRAE standards, best practices & equipment data to save 5-15% in energy.

CPO 30 uses engineered software to save 15-20% in energy (up to 60% when retrofitting), with real-time analytics to assure performance.



DEMAND RESPONSE

Optimize building energy usage to reduce load during key periods of high prices, high demand charges and electric grid events to maximize electric bill savings and incentive payments from grid and utility based programs.



HEALTHCARE ENVIRONMENT OPTIMIZATION

Optimize the operating room and improve the patient care environment by linking building automation with surgical scheduling.



METASYS ENTERPRISE OPTIMIZATION

Simplify data collection from a variety of building systems to provide a single, integrated view of building and system performance.

CHILLED WATER SYSTEMS

YORK® WATER-COOLED CHILLERS



ELECTRIC

SCROLL (YCWL) • 50–200 tons
HFC-410A refrigerant



VARIABLE-SPEED SCREW (YVWA) • 125–300 tons
HFC-134a refrigerant



MAGNETIC BEARING VARIABLE SPEED CENTRIFUGAL (YMC²) • 165–1,000 tons
Permanent magnet motor, HFC-134a refrigerant



VARIABLE SPEED CENTRIFUGAL (YK) • 250–3,000 tons
HFC-134a refrigerant



CENTRIFUGAL WITH ECONOMIZER (YK-EP) • 2,500–3,500 tons
Variable-speed drive, HFC-134a refrigerant



CENTRIFUGAL (YD) • 1,500–6,000 tons
Smallest footprint per cooling ton, HFC-134a refrigerant, VSD



COMPOUND CENTRIFUGAL (CYK) • 300–2,500 tons
High-head, HFC-134a refrigerant



CUSTOM-DESIGNED CENTRIFUGAL (OM)

• 3,000–5,500 tons
Electric-motor, steam-turbine or gas-engine drive,
HFC-134a refrigerant



THERMALLY DRIVEN

STEAM-TURBINE DRIVEN CENTRIFUGAL (YST) • 700–2,800 tons
HFC-134a refrigerant



SINGLE-STAGE ABSORPTION (YIA) • 120–1,380 tons
Low-pressure-steam or hot-water driven, water refrigerant



TWO-STAGE ABSORPTION (YPC) • 200–700 tons
Gas, oil, or high-pressure-steam driven, water refrigerant

YORK AIR-COOLED CHILLERS



SCROLL (YCAL & YLAA) • 15–175 tons
HFC-410A refrigerant



HEAT PUMP SCROLL (YLPA) • 1,390–2,040 MBH
HFC-410A refrigerant, chiller duty also available (115–170 tons)



VARIABLE-SPEED SCREW (YVAA/YCIV/YCAV) • 150–500 tons
HFC-134a refrigerant, free cooling options available

DUCTLESS & VRF SYSTEMS

YORK VARIABLE REFRIGERANT FLOW (VRF) SYSTEMS



OUTDOOR UNITS

• 6–30 tons
Both heat recovery and heat pump types, air cooled condensing units with inverter scroll compressors; up to 29.5 SCHE and 25.2 IEER



INDOOR UNITS

• 0.5–4 tons
Fan coil units in multiple styles (concealed, wall mount, ceiling cassette); ducted and non-ducted; sensor options

YORK MINI-SPLIT SYSTEMS



SINGLE ZONE

• 0.75–4 tons
A single condensing unit paired with a single wall mount indoor unit. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star® rated.



MULTI ZONE

• 1.5–3.5 tons
Single condensing unit with 2–5 indoor units per system. Multiple styles, capacities, operating ranges and efficiency ratings. Wi-Fi capable; Energy Star rated.

HOW YOU INCREASE COMFORT, SECURITY AND EFFICIENCY

SOLUTIONS

METASYS® BUILDING AUTOMATION SYSTEMS



NETWORK SERVERS, ENGINES & CONTROLLERS

Intuitive, mobile-optimized user interface. Adapts legacy and proprietary systems to current open system architecture. Support of IT standards and technologies.



WIRELESS COMPONENTS

Field buses and room environment sensing systems designed with the latest wireless technologies.



VALVES, ACTUATORS & DAMPERS

Global product family, broad selection, easy installation.



SENSORS, THERMOSTATS & AIRFLOW MEASURING SYSTEM

Temperature, humidity and CO₂ sensors including analog, network, wireless and pneumatic-to-digital.



VARIABLE-SPEED DRIVES • 1-250 HP

Open, enclosed and bypass drives, optional factory mounting.

ENERGY STORAGE



L1000 IN-BUILDING DISTRIBUTED ENERGY STORAGE SYSTEM

The benefits of advanced battery technology and in-depth building expertise in a small, flexible footprint. Configurable storage capacity in increments of 43 and 65 kWh.



L2000 MODULAR DISTRIBUTED ENERGY STORAGE SYSTEM

Scalable system builds on proven design and environmental controls to ensure economical, reliable performance. Storage capacity configured in 500kWh increments.

LIGHTING



LED RETROFIT KITS

- Utilize existing housing and lens
- Utilize existing housing with updated lens/look



AREA AND STREET LIGHTS

- New fixtures to replace existing HID fixtures

AIR SYSTEMS

YORK AIR HANDLING UNITS, COILS & FANS



AIR HANDLING UNITS (SOLUTION™) • 2,000-120,000 CFM

Indoor and outdoor, 2" foam double-wall panels with external frame, variable aspect, flexible factory-packaged controls



CUSTOM AIR HANDLING UNITS • 2,000-200,000 CFM

Indoor and outdoor, 2", 3" or 4" foam double-wall panels with integral frame, full thermal break options, fully customizable



COILS • Maximum 96" Finned Height and 168" Finned Length
Hot water, chilled water, glycol, steam, refrigerant, aluminum or copper fins, special coatings available



BLOWER COILS • 800-4,000 CFM

Small air handling and large fan coil applications; various configurations



FANS • 75-100,000+ CFM

Commercial and industrial supply and exhaust fans

UNDERFLOOR AIR DISTRIBUTION (UFAD) SYSTEMS



UNDERFLOOR TERMINAL UNITS • 15-1,500 CFM

VAV or manual diffusers, linear trough, UFAD fan powered terminal units, underfloor chilled beams

CHILLED BEAMS



OVERHEAD CHILLED BEAMS • Up to 1,700 BTU/h and 40 CFM per LF • Active and passive chilled beam products available in 2 - 10 foot lengths

TERMINAL UNITS



FAN-COIL UNITS • 250-2,000 CFM

Exposed and concealed, horizontal and vertical, vertical stack, variable cabinet sizing, direct-drive, flexible factory-packaged controls



UNIT VENTILATORS • 500-2,000 CFM

Horizontal and vertical units, flexible factory-packaged controls



VAV TERMINAL BOXES • 75-8,000 CFM

Single or dual-duct, series or parallel fan-powered, flexible factory-packaged controls, water and electric heat options

PACKAGED & SPLIT DX SYSTEMS



PACKAGED ROOFTOP UNITS • 2-150 tons

VAV and single-zone VAV applications, direct replacement options



DEDICATED OUTSIDE AIR SYSTEMS (DOAS) • 50-100% outside air

High efficiency DX, energy recovery wheel and hot gas reheat options



COMMERCIAL SPLIT SYSTEMS • 1.5-50 tons

Cooling only or heat pump outdoor units with matching cooling only, heat pump or electric heat indoor air handling units



WATER SOURCE HEAT PUMPS • 0.5-30 tons

Vertical and horizontal (standard, high and premium efficiency), console, vertical stacked (high and premium efficiency), geothermal capable



REVERSIBLE CHILLERS • 2-50 tons

Water-to-water heat pumps, (2-5 tons & 10-50 tons), modular application, geothermal capable



WATER-COOLED SELF-CONTAINED UNITS • 5-105 tons

Indoor, VAV application (> 8 tons), various heating options



AIR-COOLED SELF-CONTAINED UNITS • 2-25 tons

Indoor, VAV application (> 8 tons), rooftop alternative for dense building landscapes



AIR-COOLED CONDENSERS & FLUID COOLERS • 65-2,890 MBH

Water or glycol, multiple refrigerant options

ENERGY RECOVERY SYSTEMS



ENERGY RECOVERY VENTILATORS (ERV) • 200-12,000 CFM

Energy efficient ventilation including many heating and cooling options



HVAC LOAD REDUCTION UNITS (HLR) • Replaces up to 4,000 CFM of OA

ASHRAE 62.1 compliant product, up to 80% reduction in outside air replacement

INTEGRATED SECURITY & FIRE, LIFE-SAFETY PROTECTION

FIRE HAZARD PROTECTION



FIRE DETECTION AND ALARM

Flexible, reliable, cost-effective and highly scalable systems that can grow and expand as buildings change.



WATER FIRE SUPPRESSION

High-performance sprinkler, deluge & water mist systems.



SPECIAL HAZARD FIRE SUPPRESSION

Foam, clean agent and inert gas systems provide unique answers to unique challenges.



MASS NOTIFICATION SYSTEMS

Customizable, multi-tiered technology helps improve situational awareness and response time.



MECHANICAL PRODUCTS

Cost-effective grooved piping solutions for a full range of fire, mechanical, HVAC and industrial applications.



GAS AND FLAME DETECTION

Advanced sensor technology for multiple flame and toxic gas detection.

LIFE-SAFETY AND PERSONAL PROTECTION



RESPIRATORY PROTECTION SYSTEMS

Supplied air respirators, cylinders, air purifying respirators (APR), and many more solutions that address broad hazardous and industrial applications.



THERMAL IMAGING PRODUCTS

NFPA compliant technology offers comprehensive capabilities to maximize situational awareness.



PERSONAL PROTECTIVE EQUIPMENT

Innovative, industry specific equipment for first responders, firefighters, law enforcement, military and industrial personnel.



COMPRESSORS

Vertical and horizontal units are designed as free standing modules.



COMMUNICATION SYSTEMS

Robust person-to-person communications, advanced audio and wireless technologies, and two-way radio interoperability.

INTEGRATED SECURITY



SECURITY, FIRE & LIFE-SAFETY INTEGRATION

We are a security integrator with a vast product ecosystem specializing in the design, installation and service of security and life-safety solutions for the most complex, mission critical environments.



SECURITY MANAGEMENT SYSTEM (P2000)

Open security management platform with integrated access control, embedded video management and industry-wide third-party integrations.



ACCESS CONTROL / BIOMETRICS

Access control readers, doors, gates and devices help control, track and manage access to any facility.



INTRUSION DETECTION

Solutions customized for each customer leveraging contact devices, motion and glass break detection, panic buttons, photo beam and much more.



PERIMETER PROTECTION

Help achieve a more secure perimeter with ground based radar systems, video surveillance and monitored alarm systems.



VIDEO SURVEILLANCE, VIDEO MANAGEMENT & STORAGE

Robust surveillance systems with video cameras, monitors, CCTV and remote management tools. Scalable, integrated solutions and advanced video analytics.



SECURITY MONITORING

Fully redundant, UL®-listed Customer Care Centers provide 24/7/365 security monitoring.



COMMAND & CONTROL

Physical security information management (PSIM) helps manage all integrated physical security from one streamlined interface.



VEHICLE & GATE MANAGEMENT

K-rated fences and gates, pop-up vehicle barriers, traffic barricades and more to help protect against unauthorized people, vehicles, explosives and other threats.



DURESS & NOTIFICATION SYSTEMS

Broadcast critical messages quickly, all from a simplified web-based interface.



MANAGED SERVICES

Managed video, access control, mobile management, video guard and cloud-based video connected across a variety of platforms to help maintain secured environments in real-time.

RETAIL SOLUTIONS



LOSS PREVENTION

Integrated solutions to help reduce theft and fraud. Key components include store front detection systems (EAS, RFID), tags and labels for products, and camera systems. Software and analytic solutions help efficiency and provide insight.



INVENTORY INTELLIGENCE

TrueVue leverages item-level RFID-enabled technology enabling real-time item-level inventory visibility through the supply chain and into stores.



TRAFFIC INSIGHTS

ShopperTrak provides insights into more than 40B shopper visits per year, including store perimeter traffic counts, interior shopper analytics, labor analytics and market intelligence dashboards to help retailers increase traffic, conversion rates and transaction size.

OPERATIONAL INTELLIGENCE & ASSET PROTECTION



VIDEO BASED ANALYTICS

Video analytics software, web-based video analytics, servers, video audits and more help to analyze the data that matters across many industries.



REAL-TIME LOCATION SYSTEMS (RTLS)

Help keep staff and equipment safe with an RTLS that monitors equipment, medications, temperature sensitive products and staff



INFORMATION MANAGEMENT SOLUTIONS

Integrate multiple systems from multiple vendors, across multiple locations to more effectively manage overall security.

MAKING PROGRESS TOGETHER

Johnson Controls Building Technologies & Solutions partners with customers all over the world, in all market segments: education, healthcare, retail and commercial buildings, institutional and government facilities. We're thinking about your future, and the world's future, to create smarter, safer, more sustainable buildings for today and tomorrow. Our team delivers the technology and expertise that helps the world progress.

Let's talk about the connected building systems, services and solutions we offer to help you achieve your goals.

Call today or learn more at: 844.722.1269

Some of the renowned brands from Johnson Controls include:

tyco

 **YORK**®  **METASYS**®

 **Simplex**  **Grinnell**

Sensormatic®  **ShopperTrak** **TrueVUE**®

exacq  **ANSUL**® **DSC**®  **Visonic**

 **American Dynamics** **KANTECH** **SOFTWARE HOUSE**

JOHNSON CONTROLS AND THE JOHNSON CONTROLS LOGO, METASYS, YORK, TYCO, SIMPLEX AND GRINNELL are marks and/or registered marks. Unauthorized use is strictly prohibited.

Technology Contracting™, Solution™, and EcoAdvance™ are trademarks of Johnson Controls, Inc. in the United States of America and other countries. Other trademarks used herein may be trademarks or registered trademarks of other companies.

ENERGY STAR® and the ENERGY STAR® mark are registered trademarks owned by the U.S. Environmental Protection Agency.

UL™ and the UL logo are trademarks of UL LLC.

© 2016 Johnson Controls. All Rights Reserved.
P.O. Box 423, Milwaukee, WI 53201
Printed in USA
MISC-939 LT1313-00 MC100-2016-008
www.johnsoncontrols.com



Distributed Energy Storage System

L1000 In-Building

Manage energy use, cut costs and provide backup power for a building, campus or enterprise with the L1000 In-Building Distributed Energy Storage System from Johnson Controls. We combine world-class battery technology, in-depth buildings expertise and intelligent controls to deliver the solution that performs best with your specific building systems.

Controls go beyond the battery to optimize whole-building performance and simplify participation in energy markets. Adaptive algorithms and premium battery composition help you realize the lowest total lifecycle cost.

As a global multi-industrial leader emphasizing manufacturing excellence, Johnson Controls is perfectly positioned to partner with you on state-of-the-art energy storage. Learn how you can store and distribute power off the grid with the L1000 small container solution.

Economic Value

The system provides the ability to save money as well as participate in energy markets to deliver economic value to buildings.

Short-Term Energy Backup

The system can be configured to provide short-term electrical backup to the facility while a generator is ramping.

Multiple Power Options

The system output can be configured based upon customer needs from 50kW up to 250kW.

Modular Capacity Options

The system capacity can be configured in increments of 43 and 65 kWh.



Metasys® Compatible

The system integrates seamlessly into the *Metasys*® Building Automation System for local monitoring and control.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Small Footprint

The system can be installed in any electrical room connected to the facility grid.

Distributed Energy Storage System

L1000 In-Building

Product Specifications

	BU-43	BU-65
Minimum Storage Capacity	43 kWh	65 kWh
Storage Capacity Increment	43 kWh	65 kWh
Power Rating	Dependent upon PCS	
Applications	Frequency Regulation, Peak Shaving, Load Shifting, Backup, Volt/Var Support	
DC Voltage	518 VDC	778 VDC
Seismic	Zone 4 (California)	
Market Interface	Johnson Controls	
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet	
Monitoring	Local and Remote	
Battery Cells	VL41M 41Ah Li-Ion Cylindrical Battery	
Certification	Pending	Pending
Expected Life	Up to 20 years*	
Dimensions (W x D x H)	37 x 23 x 74 in.	37 x 23 x 74 in.
Weight (lbs)	1950 lbs.	2600 lbs.

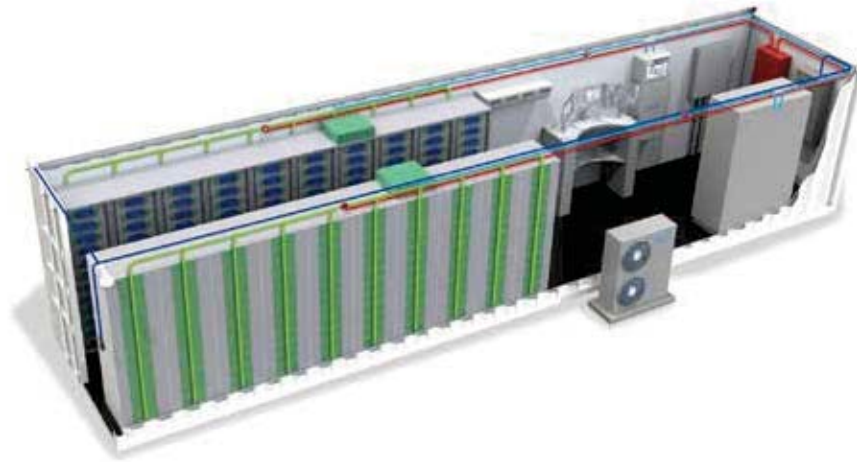
*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Battery Units	
BU-43	43 kWh Li-ion battery storage
BU-65	65 kWh Li-ion battery storage

Distributed Energy Storage System

L2000 Modular Container



Discover state-of-the-art distributed energy storage for utilities and large commercial customers. The L2000 Modular Container Distributed Energy Storage System from Johnson Controls draws on our world-class battery technology, facilities expertise and intelligent controls to handle multiple, concurrent applications. This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants.

Multiple Application Support

The system can be programmed to perform multiple, concurrent applications including transmission and distribution deferral, capacity, voltage support, renewable integration, frequency regulation, and other ancillary services.

Multiple Power Options

The system output can be configured based upon customer needs from 500kW up to 2MW.

Modular Capacity Options

System capacity can be configured based upon customer needs in 500kWh increments.

Utility and Building Compatible

The system integrates seamlessly into the utility or building energy management system using standard protocols.

The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost. As a global multi-industrial leader, we have the manufacturing excellence, innovation focus and customer insight to deliver leading-edge distributed energy storage products. Learn how the L2000 modular system brings new opportunities to regulate, store and distribute power.

Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

Separable Power Conversion

For customers with their own power conversion system, the battery units can be ordered separately.

Modular Footprint

Batteries are housed in custom 20ft or 40ft containers to ISO shipping container dimensions.

Distributed Energy Storage System

L2000 Modular Container

Product Specifications

Minimum Storage Capacity	500 kWh
Storage Capacity Increment	500 kWh
Power Rating	Dependent upon PCS
Applications	Transmission and Distribution Deferral, Capacity, Frequency Regulation, Voltage Support, Renewable Integration, and Other Ancillary Services
DC Voltage	778 VDC (nominal)
AC Voltage	Dependent upon PCS
Seismic	Zone 4 (California)
Market Interface	Johnson Controls
Utility Interface	DNP3
Building Interface	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet
Monitoring	Local and Remote
Fire Alarm Detection	Potter
Fire Suppression	Stat-X Aerosol
HVAC	18,000 BTU York
Network Security	SSL/X509
Battery Cells	VL41M, 41Ah Li-Ion Large Format Cylindrical
Expected Life	Up to 20 years*
Dimensions (W x D x H)	8 feet (2.438 m) x 20-feet (6.95 m) x 8 feet (2.438 m) 8 feet (2.438 m) x 40-feet (12.19 m) x 8 feet (2.438 m)
Weight (lbs)	PCS-500 = 3500 lbs., PCS-2000 = 7000 lbs., BU-1000 = 50,000 lbs.

*Actual may vary—dependent on environmental conditions and application. More details are available on our website: www.johnsoncontrols.com/DES.

Ordering Information

Power Conditioning Systems	
PCS-500	500 KW Inverter
PCS-1000	1 MW Inverter
PCS-2000	2 MW Inverter
Battery Units	
BU-500	500 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1000	1000 kWh Li-ion battery storage with DNP3 / BACnet interface
BU-1500	1500 kWh Li-ion battery storage with DNP3 / BACnet interface
Remote Monitoring Units	
RMU-CELL	4G LTE remote monitoring interface
RMU-WIFI	Wireless Internet monitoring interface
RMU-ETH	1G Ethernet interface

Lighting Design Considerations for K-12

Students who are comfortable and happy in their physical environments actually have a better chance of doing well in school. In fact, reports show that **students in well-maintained facilities score up to 10 percent higher on standardized tests.**

You may know Johnson Controls for building systems and equipment, but we also provide lighting solutions and financing expertise to help you build a brighter future for your school.

Depending on the standards that apply, the following indicates the controls required in a school. The ASHRAE 90.1 2010 version expands the list of control requirements: occupancy sensors (or timer switches, per approval by the authority having jurisdiction) that turn the lights off within 30 minutes of the space becoming unoccupied are required in:

- Classrooms and lecture halls
- Conference, meeting and training rooms
- Lunch and break rooms
- Storage and supply rooms between 50 and 1,000 sq. ft. in size
- Rooms used for document copying and printing
- Office spaces up to 250 sq. ft.
- Restrooms
- Dressing and locker rooms

Exceptions include shop and laboratory classrooms, spaces with multi-scene (e.g., dimming) control systems, lighting required for 24-hour operation and spaces where automatic shut off would endanger safety or security of people or property.

Design Considerations

Determine what "standards" need to be followed for light levels, controls, lighting power density, etc.

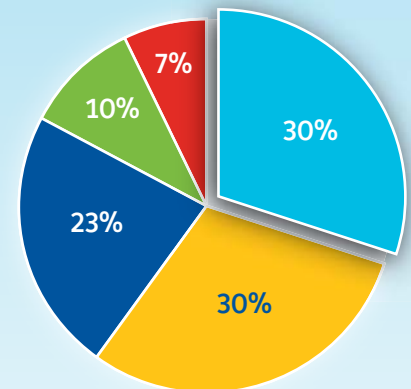
Depending on the standards that apply, the following table indicates the maximum lighting power density (watts/sq. ft.) allowed in a school.

Building Type	Maximum Lighting Power Density (W/sq. ft.) allowed per version of the ASHRAE/IES 90.1 Standard			
	1989	1999/2001	2004/2007	2010
School/University	1.29	1.5	1.2	.99



According to the U.S. Department of Energy, lighting is 30% of the total energy consumed in a typical school.

Typical School Energy Use Distribution
(varies by climate zone)



- Lighting
- Cooling
- Space heating
- Water heating
- Other



Classrooms

In order to provide the most efficient system to meet the adopted codes for classrooms, the following information should be captured:

- Typical layout of the fixture spacing in the classroom
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/outboard switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

CLASSROOM FOOT CANDLE (FC) REQUIREMENTS			
General	20 FC	Art	25 FC
Music	15 FC	Home EC	50 FC
Science Lab	50 FC	Shop	50 FC
Study Hall	15 FC	Multipurpose	25 FC

Gymnasiums

In order to provide the most efficient system to meet the adopted codes for gymnasiums, the following information should be captured:

- Typical layout of the fixture spacing in the gymnasium
 - Allows for light level verification of proposed upgrade
 - Fixture spacing patterns over the court and mounting heights
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for fixture control patterns and light level selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with new fluorescent high bay fixtures.
 - Consider dimming or stepdown options for light level options for recreation and/ or competition play. Refer to IES requirements below.
- Maximize energy savings by performing sample light level calculations using software design programs for new fixture options.
- Work with lighting controls' manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of "scenes" required.
- Determine the proper required light levels based on the class of play and activities. See the chart below to determine the correct foot candle requirements.



GYMNASIUM FOOT CANDLE (FC) REQUIREMENTS			
Physical Education	25 FC	HS Competition	50 FC





Hallways/Stairs

In order to provide the most efficient system to meet the adopted codes for hallways and stairs, the following information should be captured:

- Typical layout of the fixture spacing in the hallways and location of fixtures in the stairs
 - Allows for light level verification of proposed upgrade
 - Information required for daylight harvesting controls if required by code
- Switching and number of circuits controlling the fixtures
 - Required for proper sensor selection
 - Required for quantity of power packs required
 - Required for fixture control patterns and scene selection
- Existing light levels – multiple readings on a grid pattern

Based on the information captured, select the appropriate fixture upgrades or replacements to meet the required lighting levels and controls.

- Select appropriate retrofits and/or new fixtures based on existing fixture types.
 - Consider options for new LED fixtures along with fluorescent upgrades
 - Consider dimming options to replace in-board/out-board switching
- Maximize energy savings by performing sample light level calculations using software design programs for upgrade or new fixture options.
- Work with lighting controls’ manufacturer to maximize energy savings and meet standards with the appropriate controls.
 - Consider wireless control options and potential networked controls for additional scheduling and fine-tuning applications.
 - Verify correct components required for the number of circuits in the space and the number of “scenes” required.
- Determine the proper required light levels based on the type of classroom and activities. See the chart below to determine the correct foot candle requirements.

HALLWAYS/STAIRS FOOT CANDLE (FC) REQUIREMENTS			
Hallways	2.5 FC	Stairs	5 FC

Let us help you build a brighter school and improve student achievement. Visit www.johnsoncontrols.com/k12 to find your local expert.

REFERENCE:
Illuminating Engineering Society, *The Lighting Handbook* – Tenth Edition, Reference and Application

Johnson Controls and the Johnson Controls logo are registered trademarks of Johnson Controls, Inc., or its affiliates, in the United States of America and/or other countries.



ELEVATE PORTFOLIO PERFORMANCE WITH METASYS® ENTERPRISE ENERGY OPTIMIZATION

A family of applications designed to help drive asset uptime, lower energy costs and increase productivity

Today's well-designed building automation systems produce a wealth of data, events and alerts that can be overwhelming. Stretched for time and short on resources, you frequently don't have the capacity to sift through volumes of data to identify critical, costly issues. Metasys Enterprise Energy Optimization helps to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise.

BRINGING IT ALL TOGETHER IN ONE COMPREHENSIVE VIEW.

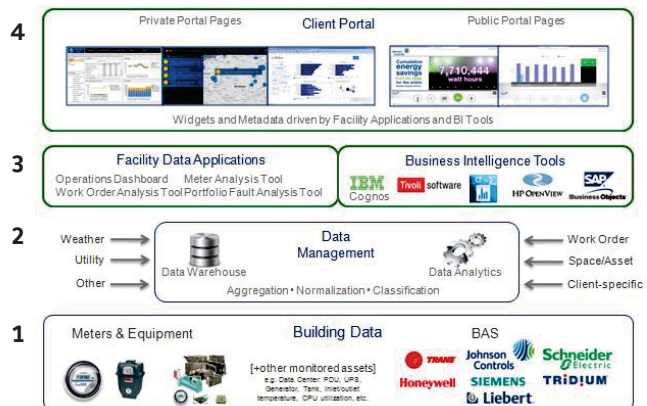
Metasys Enterprise Energy Optimization is a family of dashboards, metering and workflow tools that combine to help you cut through the data clutter with clarity and insight. The applications aggregate and normalize data, analyze it based on standard and client-specific priorities, and then deliver it through visually rich and easy-to-understand maps, charts and graphs. Together, these tools give you an unprecedented view into the performance of your portfolios, allowing you to ensure asset uptime, lower energy costs, increase productivity and report return on investment. Metasys Enterprise Energy Optimization applications combine to deliver value through a four-step process:

1. Gather. The applications are designed to integrate data from countless programs and systems including real estate, work order, energy spend, utilities use and building automation systems (BAS), including Johnson Controls Metasys and other BAS brands. From these various sources, standard data sets are gathered, along with any other customer-specific data that may be valuable based on the customer's goals and priorities.

2. Normalize. The data is then brought together in one place and normalized so it can be used by various applications across multiple vendors and types of devices. The full, normalized data set will then be analyzed to look for anomalies and potential problems, and to identify opportunities for improvement or optimization.

3. Deliver. The analyzed data is then delivered to two types of applications: Facility data applications and business intelligence tools. The facility data applications include dashboards and tools that will further analyze the data to uncover hidden insights, identify faults, prioritize them and allow building professionals to respond to events and alerts. By feeding the normalized data into business intelligence tools, organizations can track building performance against other business goals, such as measuring the amount of energy used per manufactured unit.

4. Visualize. Analyzed, prioritized data is only valuable if it can be easily interpreted. Metasys Enterprise Energy Optimization applications translate data into visual cues that are displayed two ways: A public portal, also known as a "Green Kiosk", displays metrics on things like energy and water use in a way that can be easily understood by the general public. And private portal pages are used by facility staff to assess situations and respond to events and alerts.



METASYS ENTERPRISE ENERGY OPTIMIZATION APPLICATIONS

VIEW & ANALYZE PORTFOLIO PERFORMANCE IN REAL TIME

The **ENTERPRISE DASHBOARD** provides a map-based, high-level overview of your entire real estate portfolio, along with the ability to drill down to individual regions or facilities for more focused views of performance. With the Enterprise Dashboard, you can:

Navigate your way. What's intuitive for one user may not work well for another. On the Enterprise Dashboard, you can drill down to levels of detail using whatever method you prefer, from a scrolling list of facilities, a text search or by zooming in from a map of your real estate portfolio.

Easily identify key performance indicators. Across the vast sources of data being pulled into the dashboard, selected, key metrics can be aggregated for the entire portfolio. The data can be displayed as either graphics or text, and can be exported for use in spreadsheets or other third-party applications.



INCREASE PRODUCTIVITY WITH SIMPLE, EFFICIENT WORKFLOW

The **OPERATIONS DASHBOARD** is designed to help you cut through the clutter, by displaying information in a way that's relevant, meaningful and actionable. With it, you can:

Prioritize response. The Operations Dashboard organizes performance information in priority order so you can easily see which efforts will have the greatest impact tied to your specific goals, and with the least amount of hands-on effort.

Eliminate duplication of effort. On the Operations Dashboard, priority issues are placed atop a stack of event banners, allowing authorized operators to simply drag events from the stack and into their workspace. Once an operator has 'claimed' an event banner, that event is removed from the public stack, eliminating the conflict of multiple operators working on the same problem.

Take appropriate action. The Operations Dashboard offers a simple workflow to respond to events and alerts. It presents detailed information on the event, a work order history related to the event, and large decision buttons to Suppress (hide for now), Abandon (return it to the queue), or Create Work Order (act on it). The Create Work Order action is tied to a maintenance management system, such as Maximo, to automatically generate work orders in that system.



SHOW OFF YOUR EFFORTS TO FOSTER GOOD WILL AND FURTHER SUCCESS

Most people have no idea if the buildings they occupy are well run or highly inefficient. The **GREEN KIOSK DASHBOARD** is designed to help you spread the word about your sustainability efforts. The public-facing, dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors. With it, you can:

Tell relatable story. The Green Kiosk displays metrics on things like energy and water use in a way that can be easily understood by the general public. For example, would occupants or visitors to your facility know what it means to reduce CO2 emissions by 24 tons in one week? They may have a greater appreciation for your efforts if the result – a reduction of 24 tons – was displayed with an interpretation such as, “That’s the equivalent of taking XX cars off the road.”



Foster good will and accelerate results. As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

EXPOSE ANOMALIES AND INEFFICIENCIES

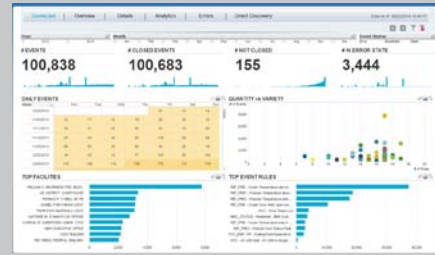
The **METER ANALYSIS TOOL** application includes a collection of visualization widgets to explore and uncover irregularities within energy and other metered utilities. Widgets include energy intensity, campus view, facility comparisons, utility-use heat map, and usage profiles mapped to calendar days. With the Meter Analysis Tool widgets, you can:

- Uncover anomalies.
- Incorporate weather data such as outside temperature and humidity.
- Explain past performance.
- Direct attention to areas of importance.
- Benchmark utility usage.



UNCOVER HIDDEN INSIGHTS WITH AUTOMATED ANALYTICS

The **FAULT ANALYSIS TOOL** is designed to help you proactively discover anomalies and equipment performance issues before they lead to alarms, occupant discomfort or even system failure. By taking a proactive approach to fault detection, you can operate buildings more efficiently and competitively. The Fault Analysis Tool automates detection of faults and other conditions of interest based on priorities you establish. With it, you can:



Customize rules. Rules can be configured to monitor and alert on faults or other conditions of interest in real time, 24/7, or can be applied to historical data to look for past events.

Minimize rule entry. Data from building management systems are automatically imported and grouped by system. A single rule definition can then be applied to a class of system, providing wide coverage with minimal effort.

Avoid costs. Critical events can be tagged for escalation and all events can be optionally monetized to focus priorities.

Analyze root causes. By analyzing the frequency of events and their escalation rates over time, the tool helps you gain insight into the overall performance of key systems and patterns of activity, which may provide clues to root causes.

Add analytics. New areas of interest can be added to the rule set over time, creating an even more powerful capability. And because they can be customized, the rules are aligned with the operational interests of each facility.

Expand surveillance. Initially, rules may be created to uncover problems and suggest root causes and remedies. Later, these same rules guard against reoccurrence of faults as equipment and systems age, or from previously unidentified causes.

The **WORK ORDER ANALYSIS TOOL** is designed to track the status of work orders generated through the Operations Dashboard.

With it, you can:

- View, at-a-glance, the number of work orders reported, closed and the total number of hours worked.
- Track work orders by day, type and location.
- Drill down to view the details of any metric.



GAIN UNPRECEDENTED VISION AND CONTROL

Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give facility professionals' unprecedented control over the operation of their portfolios, with easy-to-use tools designed to help them ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information visit johnsoncontrols.com/metasys or talk to a Johnson Controls representative at (844) 883-1291.



REINFORCE YOUR PUBLIC IMAGE *as a sustainability leader with the METASYS® GREEN KIOSK DASHBOARD*

Put your energy efficiency efforts on display

Part of your commitment to energy efficiency and sustainability is demonstrating how your efforts are benefiting the environment. The Metasys Green Kiosk ensures your energy efficiency efforts get noticed by displaying the impact of your initiatives in real time – on a touch-screen kiosk and online. The Metasys Green Kiosk uses maps, charts, graphs and videos to communicate performance in ways that are easily understood by your facility’s occupants and visitors.

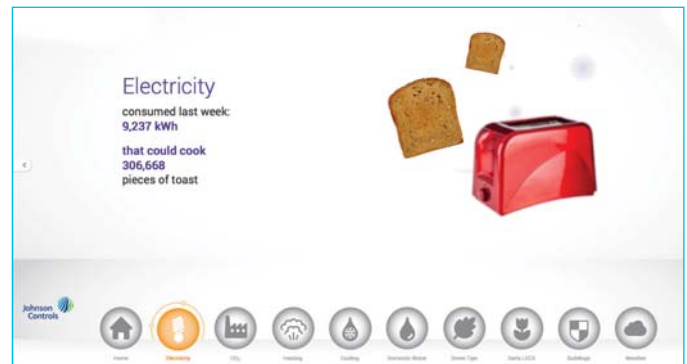
CHOOSE THE INFORMATION YOU WANT *to display*

The Green Kiosk makes use of the Johnson Controls Metasys building automation system to gather data on building performance. And because Metasys integrates with so many different devices, there’s almost no limit to the amount and type of information you can collect and present at the kiosk. Most Green Kiosk users choose to display standard metrics such as electricity usage and water consumption. But it’s possible, for example, to measure how much water is being used specifically by lawn sprinklers or how much energy is used to charge someone’s electric car. If it can be measured, it can be displayed.



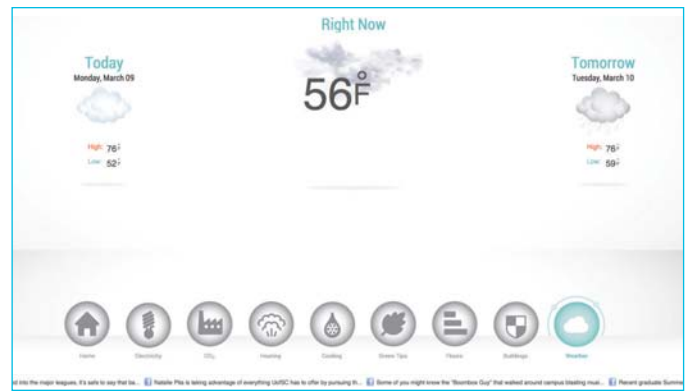
TELL A RELATABLE *story*

Because the Green Kiosk is a public-facing tool, it’s designed to display information in a way that’s easily understood by your facility’s occupants and visitors. For example, instead of just displaying the number of kWh consumed during the previous week, the Green Kiosk also translates electricity use into terms that are relatable: “That’s enough energy to cook 1,922,711 pieces of toast.” The ‘equivalents’ – as they’re called – can also be customized to make them even more meaningful to your audience. On a college campus, an ‘equivalent’ might read, “The cost of last week’s electricity could buy 1,642 slices of pizza.”



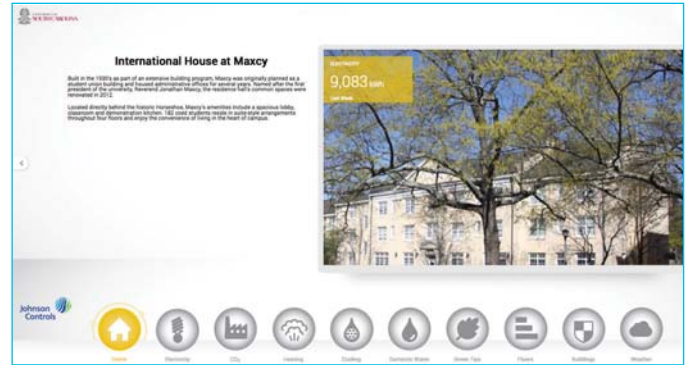
INTEGRATE NON-BUILDING DATA

Green Kiosks are often located in the lobby of a facility, where monitors may already display information such as news, weather, traffic and the company's stock price. If you're currently using monitors to display information in a public space such as a lobby, the Green Kiosk can also pull and display that kind of non-building data within its interface, allowing you to maximize the investment you've made to generate the data.



MANAGE YOUR OWN CONTENT

With the Green Kiosk, you can authorize users within your organization to update the content, eliminating the need to pay (and wait for) a third party to make a change when it's needed. Managing your own kiosk content not only saves time and money, it allows you to easily keep the content fresh and relevant, which will in turn, help to engage occupants and visitors.



FOSTER GOOD WILL *and* ACCELERATE RESULTS

As you help occupants and visitors understand the impact of your efforts, they may be more likely to take pride in the facility and in the organization. Plus, by gaining a deeper appreciation of how buildings operate, they may be encouraged to adopt energy-saving habits on their own, which can lead to even greater efficiencies.

Most people have no idea if the buildings they occupy are well run or highly inefficient. The Green Kiosk's dynamic display of real-time building performance highlights accomplishments that might otherwise go unnoticed by occupants and visitors.



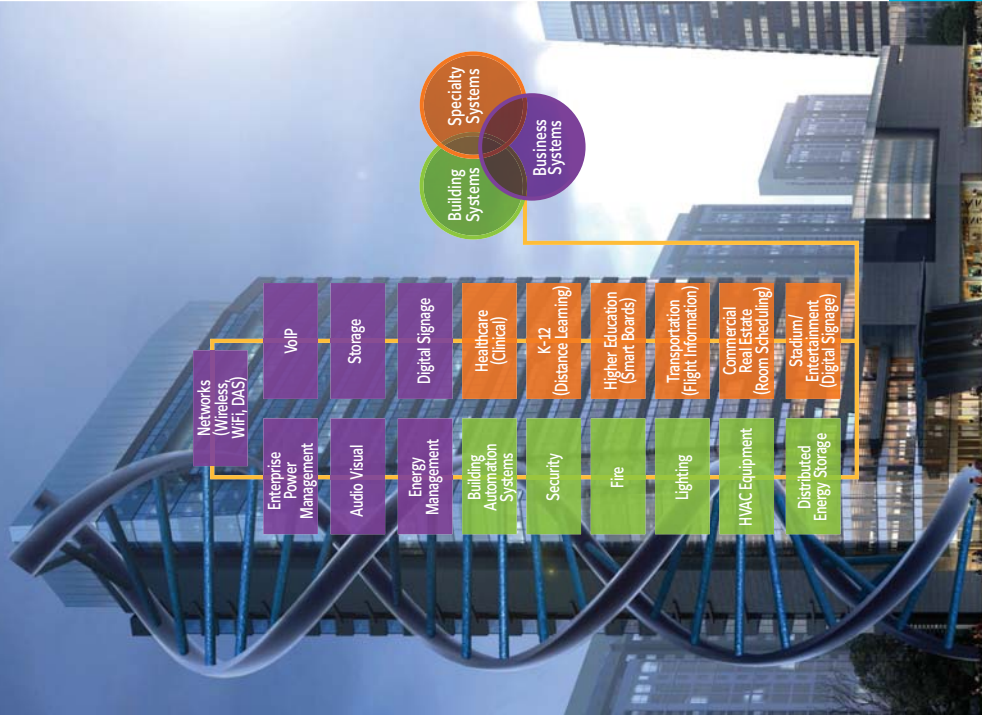
AND THAT'S JUST THE BEGINNING

The Metasys Green Kiosk is part of a family of dashboards, metering and workflow tools designed to help you to rationalize and organize information so that you can more effectively optimize facility performance and efficiency across the enterprise. Metasys Enterprise Energy Optimization offers a view of portfolio performance unmatched in the industry. With clarity and insight, the applications give you unprecedented control over the operation of your portfolio, with easy-to-use tools designed to help ensure asset uptime, lower energy costs, increase productivity and report return on investment.

For more information about the Metasys Green Kiosk or Metasys Enterprise Energy Optimization, visit johnsoncontrols.com/metasys, or talk to a Johnson Controls representative at (844) 883-1291.

WE ENGINEER GENIUS INTO A BUILDING'S DNA

Building Wide Systems Integration brings technologies together to create efficiencies for the life of your building.



Building Wide Systems Integration

There's a better way to construct a smarter building. By leveraging convergence of building, business/IT and specialty systems from the beginning you can have a bigger impact on first and lifecycle costs and enhance the functional capabilities for your business. By simplifying and optimizing the process, you'll create an innovative, optimized, efficient and sustainable environment that delivers connected experiences for the people who work there.



Intelligent Building Integration Framework

The Intelligent Building Integration Framework (IBIF) is our process for designing and implementing integrated systems. IBIF consists of a catalog of technologies and use cases across the building, business and specialty system domains. IBIF allows you to implement a proven set of technology designs to meet building and business needs.



Technology Contracting

Save time, reduce risk and decrease construction and operating costs while ensuring that technology is deployed and integrated in an orderly manner with Johnson Controls as the single point of responsibility for technology implementation. Along with an innovative Partner Ecosystem, we provide critical continuity from start to finish. The result is an optimized, intelligent and secure infrastructure that delivers the outcomes you require.



Design Assist

We'll collaborate with the design and construction teams at the earliest phase of the project to optimize the layout and integration of systems and technologies. In partnership with the design team, Johnson Controls makes recommendations for product selections that maximize the efficiency, integration, interoperability, and lifecycle service of technology systems. Moving these decisions to the earliest phase of the design process drives consensus, mitigates construction risk, results in fewer change orders during construction and systems installation, and delivers customer-defined outcomes.



Partner Ecosystem

Our Partner Ecosystem of manufacturers, distributors and value added resellers brings proven, repeatable, best-in-class technologies to your project. This network of industry leaders has the experience, expertise and innovative services and solutions that meet energy, technology and operational objectives, while reducing cost and risk.



Technology Navigation

This structured, interactive process allows you to quickly assess and prioritize technology needs and investments. Participants include a cross functional team from your enterprise, and the construction project team - architects, engineers and general contractor - as required. It results in a technology roadmap, process improvements and a direct path to addressing your most important needs with the most impact.



Integration Hub

We test the interoperability of building, business and specialty systems to create the connected environment that meets energy, technology and operational objectives. The controlled test and development environment of the Integration Hub leverages the Metasys® building automation system platform to validate potential use cases, resulting in tested integrations and interoperability that functions more securely, reliably, scales based upon need, and positively impacts outcomes.



Day 2 Services

After implementation, we resolve critical network issues via a combination of maintenance and warranty coverage for network equipment. We offer 24x7x365 customer support from the Johnson Controls Remote Operations Center (ROC). We'll proactively monitor your network to detect potential problems before they arise, troubleshoot and resolve problems remotely, or send a qualified technician onsite to fix, repair, or replace non-performing components.



Technology Refresh

Update your IT infrastructure during a building retrofit to ensure the latest technology, intelligent infrastructure and bandwidth are in place to handle future innovation.

**BUILDING WIDE SYSTEMS INTEGRATION
POWERED BY BRAINS**









BUILDING WIDE SYSTEMS INTEGRATION

Bringing technologies together to create efficiencies for the life of your building.







Building Systems & Equipment

Building Systems integrations are the key building blocks for creating a smart building and driving increased efficiency.

HVAC Controls	HVAC Equipment
	
Building Management	Air Systems
	
Security	Fire
	








Business Systems

Business Systems integrations provide an avenue to create more complex, automated workflows that positively impact energy utilization, staff efficiency and overall project cost.

Audio Visual	Networks, Wi-Fi, DAS, GPOS
	
VoIP	Power Management
	
Distributed Energy Storage	Digital Signage
	

Vertical Market Specialty Systems

Vertical Market Specialty Systems integrations combine the benefits of Building and Business Systems integrations with Vertical Market-specific Systems. Our vertical market expertise allows us to understand the unique opportunities, challenges, regulations and compliance issues within each market.

Healthcare	Higher Education	K-12
		
<ul style="list-style-type: none"> - Clinician Mobile Communications - Nurse Call - RTLS, Patient Wandering, Infant Protection - Patient Monitoring/Telemetry - Patient Engagement Systems - HEO 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
Transportation	Stadiums & Entertainment	Commercial Real Estate
		
<ul style="list-style-type: none"> - Ramp Service Management - Baggage Handling System - Flight Display System - RTLS/Wayfinding - Distributed Antenna Systems - Parking Systems 	<ul style="list-style-type: none"> - Command Center Solutions - Emergency Communications - Video Analytics - Broadcast/Production Systems - Distributed Antenna Systems - Scoreboards - Fan Experience Applications - Point of Sale - RTLS/Wayfinding - Kiosks 	<ul style="list-style-type: none"> - Command and Control Centers - Visitor Management - Conference Room Scheduling - Office Hoteling - Digital Signage - Distributed Antenna Systems - Parking Systems - Point of Sale - RTLS/Wayfinding
		Local Government
		
		<ul style="list-style-type: none"> - Wireless VoIP - Distributed Antenna Systems - Shot Detection - Solar LED Lighting - Parking Systems - In-car Police Video - Public Wi-Fi

CONVERGED TECHNOLOGY SOLUTIONS TO PRODUCE SMARTER BUILDINGS

Printed on recycled paper. Johnson Controls, the Johnson Controls logo and Technology Contracting are registered trademarks of Johnson Controls or its affiliates, in the United States of America and/or other countries. ©2016 Johnson Controls, P.O. Box 423, Milwaukee, WI 53201. Printed in USA. MSC - 931 www.johnsoncontrols.com

Connected, safe, secure and sustainable buildings, campuses and cities.

Maximum Value Delivered

- Systems that work Day 1
- Reduction in first and lifecycle costs
- Sustainability
- Serviceability of all systems
- Desired outcomes – today and in the future





Johnson Controls RFP Response to The Interlocal Purchasing System (TIPS)

RFP 180203 Renewable Energy and Solar Solutions and Services

March 16, 2018

© 2018 Johnson Controls, Inc. Do not copy (physically, electronically, or in any other media) without the express written permission of Johnson Controls, Inc.



Johnson Controls, Inc.
5757 North Green Bay Ave P.O. Box 591
Milwaukee, WI 53201



The Interlocal Purchasing System (TIPS)
Region 8 Education Service Center
4845 US Hwy. 271 North
Pittsburg, Texas 75686

Dear TIPS Selection Committee,

TIPS members are well aware that the infrastructure and services required to meet the unprecedented demands of public facilities have been on the rise, while available funding has been heading in the opposite direction.

The last thing TIPS members need to worry about is the facilities that make their mission possible. That is where Johnson Controls can step in to help. As leaders in building efficiency, we provide many Renewable Energy and Solar Solutions and Services that can help TIPS members reduce energy costs and improve the energy efficiency of their facilities.

Johnson Controls can support TIPS members nationwide from over 140 branch locations, including 10 branch offices in Texas. Our Advanced Solutions Team can help TIPS members develop solar, wind power, energy storage, geothermal, or biomass projects at their facilities. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

Johnson Controls has supported **over** 20 TIPS customers through our current and recent contract awards. Because we view ourselves as partners with our customers, we provide them with more than a set of technological upgrades based on our own equipment. Instead, we provide them with options for improving their facilities that enable them to choose the combination of improvements that makes the most sense for their organization. In doing so, we leverage existing technological investments to the largest extent possible.

We thank you in advance for giving us the opportunity to be considered for this opportunity, and we look forward to working with TIPS members on future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Pergande".

Andrew Pergande

Group Purchasing Organization Manager

Andrew.Pergande@jci.com

1-414-524-6937

Table of Contents

- Executive Summary 2**
 - Unparalleled Experience2
 - We Are Where You Are.....2
 - Flexibility and Consistency3
 - Safety3
 - Commitment to Diversity.....3
 - Commitment to Sustainability3
 - Pricing4
 - Conclusion.....4
- Proposed Goods and Services 5**
 - Solar Photovoltaic6
 - Wind Power7
 - Alternative Energy Powered Heating and Cooling.....7
 - Lighting for Street and Parking Lights7
 - Pumping Systems8
 - Microgrid.....9
 - Energy Storage9
 - Waste Heat Recovery and Urban Biogas Utilization 11
 - Sewer Heat Recovery 11
 - Renewable Energy Services 12
 - Past Experience with TIPS 13
 - Conflicts of Interest..... 14
 - Deviations of Terms 14



Executive Summary

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members can engage an Original Equipment Manufacturer (OEM) that can provide a single point of contact and accountability for all of their Renewable Energy and Solar Solutions and service needs. Our expert level of expertise in solar, wind power, energy storage, geothermal, or biomass will help TIPS members ensure that their project produces significant energy savings and the highest return on investment.

Unparalleled Experience

By selecting Johnson Controls, Inc. (Johnson Controls), TIPS members will engage an industry leader that has been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies.

Additionally, we are the national leader in Energy Saving Performance Contracting (ESPC) with a greater market share and more experience than any of our competitors. We currently hold over \$6 billion in performance-based guarantees through approximately 615 projects across North America.

This experience ensures that TIPS members can realize a high-performance project that is designed, implemented, commissioned, and serviced by reliable experts that have successfully performed similar projects for other K-12, higher-education, state, and local government bodies.

We offer our customers the reliability and financial stability of a Fortune Global 500 company with over 121,000 employees. Our sales for fiscal year 2017 totaled \$30 billion. Our financial muscle is balanced by a strong code of ethics. For ten years in a row, Johnson Controls was named one of the “World’s Most Ethical Companies” by the Ethisphere Institute. Corporate Responsibility Magazine has also recognized Johnson Controls as the #14 company in its annual “100 Best Corporate Citizens” list.

Our long history and proven capabilities illustrate that we can perform all phases of any project and provide TIPS member entities with best value through a coordinated set of impactful Energy Conservation Measures (ECMs), infrastructure upgrades, equipment maintenance and service, IGAs, or any combination of service that they require.

We Are Where You Are

Although Johnson Controls has a large national and international footprint, we understand the importance of having a local presence in the communities we serve.

Our extensive branch network is 100% company owned and operated, which enables us to share resources, expertise, innovations, and our corporate values throughout the entire branch network. This enables all of our

branch employees to benefit from the experience and lessons learned on projects we perform across the nation and around the world. No other Energy Services Company (ESCO) has a similar network.

By investing in local branch locations, we enable local decision-making authority that makes it easier to respond to the needs of customers in a timely manner. Our investment also helps support the communities where we live and work.

Flexibility and Consistency

TIPS members can benefit from our established and uniform development and implementation approaches that provide a consistent level of service and expedited delivery. We will apply the same management approach at a small-town school district, as we will for a world-renowned University or large state customer with highly dispersed facilities. This ensures that each project meets our standards of quality, safety, and maximum return on investment for our customers.

With the large number of resources available to our teams, we are able to provide projects with additional staff to meet aggressive deadlines. Additionally, our ability to streamline the development, procurement, and implementation processes ensures faster upgrades of facilities so our customers will realize savings sooner.

Safety

At Johnson Controls, we realize safety is just as important to you as it is to us. From onsite field employees to corporate offices, safety is built into all the services we provide.

Compared to the industry averages for Total Recordable Injury Rate (TRIR) and Lost Time Injury Rate (LTIR), Johnson Controls is leading the way in safety. In fact, our current safety record surpasses the published future safety goals of most industrial leaders.

Commitment to Diversity

For any project we undertake, we endeavor to maximize participation from minority-owned and Historically Underutilized Businesses (HUBs). This is an increasingly important goal for many of our customers, and benefits Johnson Controls by expanding our pool of available talent in each marketplace.

Johnson Controls is committed to being a leader in supplier diversity. By incorporating certified minority-owned suppliers, as well as small or disadvantaged businesses, into our customer solutions, we economically equip entire communities and gain a competitive advantage. We have more than 700 diverse suppliers representing more than 50 product and service categories. Approximately 7% of Johnson Controls' outside purchases are made with diverse suppliers and contractors with minority purchases making up approximately 80% of the spend. The remaining external purchases are from woman-owned firms and firms designated by government agencies as small or disadvantaged businesses.

Because of these efforts, Johnson Controls has joined the elite Billion Dollar Roundtable, an organization comprised of only 24 U.S. corporations that spend more than \$1 billion annually with minority- and women-owned businesses.

Commitment to Sustainability

Sustainability is a cornerstone of our business. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our corporate headquarters campus in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.

Since 2002, we have publically reported various sustainability data, including safety, and environmental metrics. We published our first annual Business and Sustainability Report in 2003, which details our performance in accordance with the Global Reporting Initiative (GRI) guidelines – the most widely accepted global standard for reporting corporate responsibility. Our Sustainability Report is available for you to view online at:

<http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies/business-and-sustainability-report/environmental-leadership>

Pricing

Johnson Controls offers Cost Plus pricing for renewable technologies. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts.

For estimating, our teams mainly use Nx Gen for Service work and the Projects Development Tool for larger scale projects. These are the tools we have used for some time and have used previously with TIPS and TIPS customers. Johnson Controls is willing to engage TIPS in an approval process for these tools if necessary.

Conclusion

TIPS members can ensure the success of their projects by selecting an experienced firm with a local presence and a long record of accomplishment in K-12, higher education, and state and local government projects. As the national leader in Renewable Energy and Solar Solutions and Services, we are uniquely well positioned to partner with TIPS members on their projects because we can provide a single source of accountability for any project. Whether your project is a Microgrid, a small solar system, emergency service, or any combination of services or products, TIPS members will get the same reliable service, high-performance, and attention to detail without regard to the size of your project.



Proposed Goods and Services

Warren S. Johnson, a professor at the State Normal School in Whitewater, Wisconsin, received a patent for the electric room thermostat in 1883. His invention launched the building control industry and was the impetus for the Johnson Electric Service Company, which he founded to manufacture, install, and service automatic temperature regulation systems. This foundation ignited a culture of customer-focused innovation for 130 years.

That passion continues today as Johnson Controls is a global leader in delivering solar, wind power, energy storage, geothermal, or biomass solutions. To date, we have been involved in more than **500 renewable energy projects** including biomass, solar, and geothermal technologies. Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000.

Our solutions have reduced carbon dioxide emissions by **17.4 million metric tons** and generated savings of **\$7.5 billion** since 2000. Our renewable technologies customers include K-12 school districts, higher education customers, local governments, state government departments, and federal government agencies.

Renewable solutions are a major focus of our organization. We create sustainable solutions through all of our workstreams and practice what we preach as a corporation. Our Building Efficiency headquarters in Glendale, Wisconsin represents the largest concentration of LEED Platinum buildings with four awarded buildings in one site.



Our renewable energy team has the capability to evaluate, design, and develop a diverse array of renewable energy technologies, such as solar, wind, bio-mass, landfill gas, and geothermal. We have made a significant investment in expert resources to develop this critical technology in all of our energy projects.

The following list shows a subset of our renewable energy system capabilities:

- Solar photovoltaic
- Wind turbines
- Thermal heating systems
- Alternative energy HVAC
- Geothermal heat pumps
- Street and parking lighting
- Pumping systems
- Microgrid
- Energy storage
- Solar daylighting
- Biomass plants
- Solar thermal domestic water heating
- Solar transpired walls

Solar Photovoltaic

The Solar PV team is responsible for engineering design or oversight of design on solar PV projects, including product selection, vendor relationships, output modeling for PV systems, and preliminary cost estimation. This team has implemented over 100 Solar projects, including projects at Tulare, CA where we installed a 30 Kw PV system in the carport and a 1 MW system on land that generates 1,860,000Kwh annually.

The **State of Utah** implemented a **Solar for Schools** program with Johnson Controls that provided 73 5-kilowatt, high efficiency solar modules with inverters, mounting racks, spec sheets, and full warranties. The goal of the program is to mount at least one module in each of the state's 41 districts. We also provided training in renewable energy to help school staff ensure performance.

Other projects include the State of Utah, Mount Wachusett Community College, the U.S. Bureau of Land Management, and the Marine Corps Air Ground Combat Center in Twentynine Palms, California.

At **Wyandotte Public Schools** in Michigan, Johnson Controls installed an 8.4 kW-AC photovoltaic system on the roof of Wilson Middle School. The PV array provides electricity directly to the school to reduce the amount of electricity purchased from the local utility.

This installation is part of a multi-phased performance contracting program implemented over several years to reduce operating costs and improve comfort throughout the school district. The improvements enabled all 11 facilities across the district to obtain ENERGY STAR certification, making Wyandotte Public Schools the first district in the state of Michigan to achieve this distinction.



Solar for Schools is expected to remove more than 8,000 tons of carbon dioxide from the atmosphere over 20 years, equivalent to the carbon offset that would be generated by planting 11,000 trees and letting them grow for ten years.



At San Juan College in Farmington, New Mexico, Johnson Controls provided a PV array, solar thermal floor heating, a geothermal heat pump, controls, and a monitoring system. The monitoring system was used for student instruction in the outdoor learning laboratory. The building received LEED Gold Certification.

Wind Power

Johnson Controls has experience with implementing power generating wind turbines.

At the Bureau of Land Management Field Office in Rawlins, Wyoming, we installed a new 120-foot wind turbine rated at 100 kW with an estimated output of 300,000 kW hours per year.

Johnson Controls provided a turnkey installation of a 100kW wind turbine for the Rawlins Field Office. Manufactured by Vermont based Northern Power Systems, the Northwind 100 wind turbine will replace the existing 20kW turbine with a high reliability direct drive (gearless) design.

An excellent wind resource exists at the site, and the Northwind 100 is expected to produce over 300,000 kWh per year (approximately 60% of the annual energy needs of the Rawlins Field Office).



Alternative Energy Powered Heating and Cooling

Ground-source geothermal heat pump system can provide a "green" solution to heating and cooling challenges, offset capital HVAC costs, and address lack of redundancy.

A geothermal system provides heat in the winter by tapping into the earth to capture its renewable energy. It provides cooling in the summer by removing heat from the home and placing it in the cooler earth.



At the Claremore Campus Rogers University we provided a 416 tons mono-loop central geothermal system.

Lighting for Street and Parking Lights

Johnson Controls brings the capabilities of **90 dedicated lighting professionals**, including six **NCQLP** certified lighting designers, who bring hundreds of years of experience designing and implementing lighting projects. As the largest non-OEM lighting retrofit contractor in the U.S. with more than **250,000 fixture replacements/retrofits each year**, we are at the forefront of new lighting technologies.

We can develop intelligent, adaptable and future ready designs so additional systems for parking management, traffic control, cameras/safety, digital signage and water/climate detection can easily be added. We also have an in-house material procurement team to get you the absolute best material pricing without additional layers of mark up.

Effective street lighting design and selection focused on extending lifecycles and reducing O&M costs requires specialized expertise. Johnson Controls brings the capabilities of in-house lighting experts, Johnson Controls Lighting Services, as well as specialized modeling, mapping and project management tools to keep you up to date on the project's progress. In all, we have worked with numerous municipalities across the country on similar street lighting design and technology selection projects, retrofitting or replacing more than 250,000 fixtures each year.



At the City of Binghamton, NY, we reviewed all municipal lighting, including GPS mapping of all lights, and an analysis to determine energy savings. We also used a pilot program in three locations to provide data before full installation. Energy and maintenance savings from this effort will offset project costs paid for through the City's capital bond.

Reduced Associated Carbon Footprint

Johnson Controls' lighting experts will help you select the right solution to significantly reduce the carbon footprint of your street or parking lights. As a leader in local government solutions, we can also expand this effort to your facilities. We can not only deliver this effort, but serve as your long-term energy partner, providing you with a comprehensive, holistic city-wide approach to carbon management and energy efficiency.

Reduce Costs Associated With Street Lighting Operations

We develop detailed and individualized maintenance programs in conjunction with clients and in coordination with your staff to achieve your organizational, operational, and financial goals. We are vendor neutral, focused only on getting the best technology option at the best price for the customer.

Reduce Light Pollution Associated With Street Lighting

Johnson Controls knows how to design optimal street lighting projects using photometrics that maximize safety and minimize light pollution, having implemented several dark sky compliant projects nationwide. In Hawaii, we effectively worked with State and community representatives to create a regulation-compliant design for 21,000 street lights that also had community input and acceptance.

Experience with Street Light Infrastructure Acquisition from Utilities

Johnson Controls has demonstrated experience and a proven process for working with municipalities and utility companies on street light acquisition. We worked closely with NYSEG on our street light project with the City of Binghamton, as well as with utilities across New York and Pennsylvania as part of numerous other municipal street lighting acquisition projects.

Experience Developing and Implementing Street Lighting Projects

We have worked with numerous municipalities across the country on street lighting design and technology selection projects, having recently installed 70,000 LED street lights. Our dedicated product testing and technology vetting group is continually testing new products and we only recommend those that have achieved approval through a technical, financial and commercial risk review for use in a long-term performance contract. We also test proven technologies to ensure they perform for cities over the equipment life cycle, and use GIS mapping to expedite the street light inventory process.

Pumping Systems

We have experience with HVAC, indoor air quality, chlorine management, chemical detection and measurement, lighting, locker room water improvements and related equipment in pool and recreational facilities. Our experience includes the implementation of several improvement measures such as swimming pool de-humidification systems and gymnasium ventilation improvements.



Meeting Your Dark Sky Goals

We have met similar dark sky requirements on our work with the Hawaii DOT. We accompanied State Highways representatives to meet with the Starlight Committee, the local dark sky organization, to discuss dark sky and other observatory needs. We were able to effectively work with State and community representatives to create not only a regulation-compliant design that also has community input and acceptance.

Microgrid

With our strong background in designing and building renewable applications, Johnson Controls develops or participates in many microgrid implementations.

For example, at **Isle Royale National Park** Johnson Controls installed Distributed Generation and Control Systems to operate as a remote microgrid. This project included three separate locations up to 40 miles apart from one another, including Mott Island, Windigo, and Rock Harbor.

Johnson Controls installed 23 solar thermal domestic hot water pre-heating systems including 61 collection panels across various facilities at the Rock Harbor and Windigo campuses. The solar thermal systems provide approximately 78% of the estimated annual energy required for domestic hot water at Windigo.

At the Rock Harbor site, the systems displace 87% of the estimated annual electricity use and 45.7% of estimated fuel oil use for domestic hot water. They conducted energy efficient lighting upgrades, and installed solar PV hybrid system, solar attic fans, and water conservation system.

The project will alleviate dependence on diesel and showcase the island as a model of sustainability for other Government agencies to follow. The total facility size for Phase 1 is 66,931 square feet. This will result in 2,724 million Btus saved annually and 19,000-gallon reduction in annual diesel fuel consumption.

“Johnson Controls was the most qualified ESCO to assist Isle Royale with our savings goals. Their ECM options are innovative and their strong local resources are unmatched. The Johnson Controls Team understands our objectives and is committed to building a relationship with us.”

Phyllis Green
Isle Royale Superintendent

Energy Storage

Batteries are a core business for Johnson Controls. We have 100+ years of experience delivering batteries that meet our customers’ evolving needs. We’re the world’s largest supplier of vehicle batteries, producing one-third of the industry’s total output every year. Our distributed energy storage systems include cell-level monitoring and control, as well as smart algorithms that promote long-term cell life.

The Stationary Energy Storage team helps customers realize savings through energy storage and peak shaving. They engineer, develop, manufacture, and sell stationary energy storage solutions that use smart technology to reduce energy costs by decreasing electric demand charges.

Johnson Controls provides the most efficient and reliable energy storage system for enabling grid optimization and renewable energy integration. The strength of our offering comes from the combination of our advanced Li-Ion battery technologies and our many decades of experience as a pioneer in the development of energy control systems.

Energy storage is the process of collecting and preserving energy for on-demand use and is accomplished through the introduction and use of devices or physical media that store energy to perform useful processes at a later time.



With this solution, Johnson Controls employs world-class battery technology, building systems expertise, and intelligent controls to facilitate energy storage at the lowest lifecycle cost. Johnson Controls' energy storage solutions include:

- Battery Power Stationary Storage
- Solar PV
- Thermal Energy Storage Systems
- Ice Storage
- Microgrids

By combining advanced energy technology with in-depth building knowledge, Johnson Controls provides clients with holistic energy storage solutions that work best based on specific application needs and requirements, in front of or behind the meter. Because each client's needs vary greatly, Johnson Controls' energy storage solutions have been designed with scalability in mind.

Battery Power Stationary Storage

Stationary Storage has improved to the point where customers are seeing significant economic benefit from employing battery systems to provide a hedge against spiking demand charges. Our stationary battery systems store excess energy when the power-generating systems are running, and provide power when the power-generating systems are offline.

Energy Storage System - In-Building

In-building distributed energy storage systems help to manage energy use, cut costs, and provide backup power for single buildings as well as entire campuses or enterprises.

Modular Container Distributed Energy Storage System

This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants. The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost.

Thermal Energy Storage Systems

Thermal Energy Storage systems reduce on-peak electrical demand and energy costs. With adequate access to unobstructed sunlight, solar thermal energy can be created by absorbing the sun's heat with devices such as flat-plate solar energy collectors. A heat transfer fluid passes through tubes within the solar collectors where it is warmed and then distributed to the heating system.



Ice Storage

Ice storage air conditioning is the process of using ice for thermal energy storage. This system provides efficient cooling during the day by circulating refrigerant through coils in its ice storage tank, eliminating the need to run an energy-intensive compressor during peak daytime hours. The system re-freezes ice each night when electricity generation is cleaner, more efficient, and less expensive.



L1000 In-Building Energy Storage System



Waste Heat Recovery and Urban Biogas Utilization

Many of our projects make use of waste heat recovery technology. For the **City of Baltimore Back River WWTP**, Johnson Controls developed a combined heat and power plant that uses the remainders of treated wastewater as fuel.

The plant will generate more than 2.4 megawatts of electricity per year, provide steam to offset process-heating requirements and produce hot water for boilers. As an added benefit, the digester gas cogeneration plant will reduce emissions, save taxpayer dollars, address workforce development, and support the local economy.



Johnson Controls also designed and constructed a 1,000 kW ground-mount PV system located at the Back River Waste Water Treatment Plant. Using SolarWorld modules and leveraging a grant from the Maryland Energy Administration, this project supports the City's objectives toward self-generation of 30% of all energy. This is a fixed-tilt, custom racking system suitable for the site's topography.



At the **City of Fort Worth**, Johnson Controls began an energy efficiency partnership in 2003 that has grown to seven phases of major infrastructure improvements in 107 city-owned facilities. The \$69 million investment will save the City \$93 million over a 15-year period. Johnson Controls guarantees these savings under the Energy Savings Performance Contract (ESPC) funding vehicle authorized by the State of Texas for public entities.

The largest of the seven projects occurred at the **Village Creek Water Reclamation Plant** – a \$35 million initiative that has significantly benefitted the City's goal to establish Village Creek as a Net Zero Energy Facility. This ESPC project reduced electrical consumption by 39%, which has taken more than \$2.5 million off the plant's electric bills each year. In addition, Oncor Electric provided \$1.3 million in rebates to the City due to electric demand reductions.

For this project, Johnson Controls developed and implemented a 50,000 lb/hour, 235-psig steam system. Heat was recovered from combustion turbine exhaust, and supplemented with heat created by burning biogas produced at the wastewater treatment plant in a duct burner. This project also involved improvements to increase the production of biogas through the addition of high-strength waste to the digesting bio solids.

Sewer Heat Recovery

Johnson Controls also has experience providing sewer heat recovery solutions. At the **Beaufort-Jasper Water & Sewer Authority** in South Carolina, Johnson Controls used finished water (i.e. potable or drinking water) as a heat sink via a plate and frame heat exchanger for controlling the environment within their administrative building.

This concept is similar to a Geothermal HVAC. By using reversible heat pump chillers to meet their heating/cooling needs, Johnson Controls was able to provide both heating and cooling for water source heat pumps in the older building section as well as newer VAV/Air Handling system in the newer part of the facility. This project qualified for local utility incentives of approximately \$132,000 and had an annual expected energy savings of approximately \$48,000 per year.

Renewable Energy Services

Every renewable energy project requires a process that includes:

- Onsite evaluation of energy consumption
- Return on investment analysis
- Consultation and recommendations
- Custom system design

We have performed this process for over 3,100 projects through our performance contracting. Each assessment considers the needs of the customer and project stakeholders, which can include a board of directors, local government departments, or the general public.

The Johnson Controls strategic planning process enables our customers to clearly identify their facility and operational strengths and weaknesses before construction begins. This allows facility and construction changes to focus on and address outlined deficiencies. Having these groups involved up-front in the process directly influences the final issues addressed in the construction phase. Some specific examples include the following:

- **Bagley School District** chose to add additional classrooms due to growing enrollment and feedback from community, teachers and staff.
- **Warren-Alvarado-Oslo School District** chose to engage in a more involved re-purpose of their elementary school classroom spaces, as well as mechanical upgrade, due to feedback from teachers and staff.
- **Thief River Falls School District** reviewed their math series as a result of feedback given by their student stakeholders.
- **Duluth School District** chose to add/revise the circulation path and design intent, based on specific feedback from students, teachers and staff.

Throughout our decades of experience in the energy efficiency industry, Johnson Controls has developed a four-phased approach to maximizing energy efficiency for our clients. The phases are: Preliminary Assessment, Project Development, Project Implementation, and Performance Period. The services outlined in the RFP occur during the first two phases of our process.

Onsite Evaluation of Energy Consumption

During the Preliminary Assessment phase of the project, Johnson Controls assesses the energy consumption at the site by interviewing the customer and surveying the utility bill history of the facility.

For projects with substantial technical and financial risk, this process helps mitigate the risks to the overall program by allowing the proponent and customer to avoid excessive investment of time or money early in the project when options are still being evaluated.

Johnson Controls employs a Life-cycle evaluation strategy when making long-term facility decisions. Studies have shown that first-cost centered evaluations often result in long-term cost problems, because much of the cost of building, operating, and maintaining the project falls outside of the initial first cost.

During the Project Development phase of the project, Johnson Controls conducts in-depth assessments of the facilities, which includes baseline development and a technical and economic feasibility analysis. We deploy data loggers to measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible.

Return on Investment Analysis

During the Project Development phase of the project, Johnson Controls develops a baseline, performs a technical and economic feasibility analysis, and performs a cost analysis of each improvement. We deploy data loggers to

measure and record specific pieces of information regarding critical equipment and conditions such as the power draw, the run times of pumps and fans, zone temperatures, and humidity. We use this data to further calibrate the model and ensure we match actual conditions as closely as possible. This information help determine the potential return on investment.

Consultation and Consultation for the Right Decision

During the second phase of the project, we work closely with the project stakeholders at every major milestone to ensure the customer is aware of the project status and approve any major decision before we move forward. These meetings take place to decide on pricing, cash flow, selection of equipment, selection of subcontractors, determination of the project baseline methodology, and any other major decision.

During this phase, we meet with maintenance staff to assess the current equipment and get an understanding of the control metrics in place. We also gather existing schedules to determine how the customer uses their equipment and controls. This information helps us calculate a baseline. Working closely with customer staff, we use this phase to set an implementation timeline that fits the customer’s schedule. We understand that your facilities cannot shut down for maintenance or installation work.

Our in-house experts from all phases of the project (business and project development, engineering, commissioning, construction, operations and maintenance, as well as measurement and verification) are involved throughout the process to ensure continuity.

When designing our solutions, we consider the long-term impact (optimal learning conditions, safety, first cost, equipment selection, operational cost, energy savings, and reliability) that a specific FIM will have on facilities, staff, and students. In an education environment, the impact to safety and the learning environment is equally important. In all cases, we prioritize our work around our customer’s needs and their budget.

We present final designs and detailed project schedules for review and collaboratively determine final selection of improvements for the project.

Custom Designed System

Each system we implement is custom designed for your facility. The assessments we perform and meetings we hold all provide information to the design team. This level of information helps the design engineers create the most effective system with your budget.

Past Experience with TIPS

Johnson Controls has responded to two previous TIPS RFQs and have performed dozens of projects for TIPS member entities through the system. Since 2013, we have completed or are currently performing work through various TIPS contracts at the following locations.

TIPS Member Entities	Project Year	TIPS Member Entities	Project Year
Brownsville Public Utilities Board <i>(1 project)</i>	2017	Leander Independent School District <i>(1 project)</i>	2017
Texas State Technical Colleges – All Campuses <i>(1 project)</i>	2017	Texas State Technical College – Marshall <i>(1 project)</i>	2016
Alamo Community College District <i>(4 projects)</i>	2017	New Caney Independent School District <i>(1 project)</i>	2016
Lake Worth Independent School District <i>(4 projects)</i>	2017	Deer Park Independent School District <i>(2 projects)</i>	2016

Del Mar College District (1 project)	2017	Education Service Center Region XVII (1 project)	2016
Alief Independent School District (10 projects)	2017	Katy Independent School District (47 projects)	2016
Columbia-Brazoria ISD (6 projects)	2017	Dallas County Community College (4 projects)	2015-2016
Harlingen TX (City Of) (1 project)	2017	Pulaski Technical College (PTC) (3 projects)	2014-2016
Mesquite ISD (1 project)	2017	University of Texas – Tyler (1 project)	2014-2016
Texas State University (12 projects)	2017-2018	Stephen F. Austin State University (4 projects)	2013-2016
Texas Southmost College (1 project)	2017		

Conflicts of Interest

Johnson Controls is not aware of any relationships that might be considered a conflict of interest when doing business with Members in the TIPS program.

Deviations of Terms

In the Attributes section of the TIPS bid system, we have noted the following deviations.

#75 Acts or Omissions

JCI will agree to indemnify such indemnities for the claims and costs described herein, but only to the extent that they result from the acts or omissions of JCI (or a party for which is JCI is legally responsible), and such acts or omissions are negligent or represent willful misconduct.

#83 Agreement Deviation/Compliance

In the **PRICING** section of the Vendor Agreement Form, Johnson Controls would like to add the following pricing language, which is consistent with our previous TIPS awards and our standard pricing for cooperatives. Johnson Controls offers Discount Off Catalog pricing. Due to the custom nature of our product offerings, we use a software application to generate our costs in lieu of price lists. Customers will receive an itemized catalog price list for their particular project. In this way, our prices and discounts are completely transparent to the customer. This pricing method ensures that TIPS members receive the latest pricing. We structure the pricing for all cooperative contracts the same way to ensure consistency in our contracts. Additionally, we agree to offer the same pricing as we do other cooperative purchasing customers, as long as the pricing methodology requested by the cooperative is the same. This preferred pricing is only attributed to the master agreement, individual task orders awarded under the master are not to be considered. Preferred Pricing is based on Johnson Controls Fire and Security domain only.

In the **INDEMNITY** section of the Vendor Agreement Form, Johnson Controls would like to add the following language: Johnson Controls limits its indemnity obligations to instances where Johnson Controls' acts or omissions are negligent or constitute willful misconduct. Johnson Controls shall indemnify TIPS, TIPS Member(s), officers and employees, from any and all damages, losses, costs, and expenses (including reasonable attorneys' fees) arising out of third party claims, demands, or suits for bodily injury (including death) or damage to tangible property to

the extent arising directly out of the negligence or intentional misconduct of the Vendor or its employees or agents. Johnson Controls will not indemnify another party for its own negligence, and should not be liable for claims or losses to the extent of the third party's contributory negligence. If selected, we would welcome the opportunity to enter into good faith negotiations with a view towards agreeing upon mutually acceptable contract terms.