

# PERFORMANCE CONTRACT

This Performance Contract (this "Agreement") is made this [REDACTED] day of [REDACTED], 20[REDACTED] between:

## PARTIES

Johnson Controls, Inc. ("JCI")  
12000 W Wirth Street  
Wauwatosa, Wisconsin 53222

and

City of Milwaukee ("Customer" or "City")  
200 West Wells Street  
Milwaukee, Wisconsin 53202

## RECITALS

**WHEREAS**, Customer desires to retain JCI to perform the work specified in Schedule 1 (Scope of Work) hereto (the "Work") relating to the installation of the improvement measures (the "Improvement Measures") described therein; and

**WHEREAS**, Customer is authorized and empowered under applicable Laws (as defined below) to enter into this Agreement, and has taken all necessary action under applicable Laws to enter into this Agreement; and

**WHEREAS**, Customer has selected JCI to perform the Work after it determined JCI's proposal was the most advantageous to Customer in accordance with all applicable procurement and other Laws.

**NOW, THEREFORE**, in consideration of the mutual promises set forth herein, the parties agree as follows:

## AGREEMENT

1. **SCOPE OF THE AGREEMENT.** JCI shall perform the Work set forth in Schedule 1. After the Work is Substantially Complete (as defined below) and the Certificate of Substantial Completion is executed by Customer and JCI, JCI shall provide the assured performance guarantee (the "Assured Performance Guarantee") and the measurement and verification services (the "M&V Services") set forth in Schedule 2 (Assured Performance Guarantee). Customer shall make payments to JCI for the Work and the M&V Services in accordance with Schedule 4 (Price and Payment Terms).
2. **AGREEMENT DOCUMENTS:** In addition to the terms and conditions of this Agreement, the following Schedules are incorporated into and shall be deemed an integral part of this Agreement:  
  
Schedule 1 – Scope of Work  
Schedule 2 – Assured Performance Guarantee  
Schedule 3 – Customer Responsibilities  
Schedule 4 – Price and Payment Terms  
Appendix 1 – Lighting Line by Line survey  
Appendix 2 - Controls Drawings
3. **NOTICE TO PROCEED; SUBSTANTIAL COMPLETION; M&V SERVICES.** This Agreement shall become effective on the date of the last signature on the signature page below. JCI shall commence performance of the Work within ten (10) business days of receipt of Customer's Notice to Proceed, a form of which is attached hereto as Attachment 1, and shall achieve Substantial Completion of the Work by the Substantial Completion date, which shall be the date on which Customer executes a Certificate of Substantial Completion substantially in the form attached hereto as Attachment 3.

For purposes of this Agreement, "Substantial Completion" means that JCI has provided sufficient materials and services to permit Customer to operate the Improvement Measures. The M&V Services shall commence on the first day of the month following the month in which Customer executes a Certificate of Substantial Completion and shall continue throughout the Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. Customer acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services in accordance with Schedule 4, (iii) fails to fulfill any of Customer's responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Agreement, the Assured Performance Guarantee shall automatically terminate and JCI shall have no liability thereunder.

4. **DELAYS AND IMPACTS.** If JCI is delayed or impacted in the commencement, performance, or completion of the Work and/or M&V Services by causes beyond its control and without its fault, including but not limited to inability to access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work; a Force Majeure Event (as defined below) condition; failure by Customer to perform its obligations under this Agreement; or failure by Customer to cooperate with JCI in the timely completion of the Work, JCI shall provide written notice to Customer of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance, price, scope and payment terms, and the Assured Performance Guarantee shall be made.
5. **ACCESS.** Customer shall provide JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Customer's control that are subject to the Work and M&V Services. Customer further agrees to assist JCI, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Customer but are necessary for JCI to complete the Work and provide the M&V Services. An equitable adjustment in the time for performance, price and payment terms, and Assured Performance Guarantee shall be made as a result of any failure to grant such access.
6. **PERMITS, TAXES, AND FEES.** Unless otherwise specified in Schedule 3 (Customer Responsibilities), JCI shall be responsible for obtaining all building permits required for it to perform the Work. Unless otherwise specified in Schedule 1 (Scope of Work), Customer shall be responsible for obtaining all other permits, licenses, approvals, permissions and certifications, including but not limited to, all zoning and land use changes or exceptions required for the provision of the Work or the ownership and use of the Improvement Measures. JCI shall not be obligated to provide any changes to or improvement of the facilities or any portion thereof required under any applicable building, fire, safety, sprinkler or other applicable code, standard, law, regulation, ordinance or other requirement unless the same expressly regulates the installation of the Improvement Measures. Without limiting the foregoing, JCI's obligations with respect to the Work is not intended to encompass any changes or improvements that relate to any compliance matters (whether known or unknown) that are not directly related to the installation of the Improvement Measures or which have been imposed or enforced because of the occasion or opportunity of review by any governmental authority. Customer shall be responsible for and shall pay when due all assessments, charges and sales, use, property, excise, or other taxes now or hereafter imposed by any governmental body or agency upon the provision of the Work or the M&V Services, implementation or presence of the Improvement Measures, the use of the Improvement Measures or payments due to JCI under this Agreement, other than taxes upon the net income of JCI. Customer shall also be responsible for real or personal property taxes relating to equipment or material included in the Improvement Measures. Any fees, taxes, or other lawful charges paid by JCI on account of Customer shall become immediately due from Customer to JCI.
7. **WARRANTY.** JCI will perform the Work in a professional, workman-like manner. JCI will promptly re-perform any non-conforming Work for no charge, as long as Customer provides written notice to JCI within one (1) year following Substantial Completion or such other period identified in Schedule 1. If JCI installs or furnishes goods or equipment under this Agreement, and such goods or equipment are covered by an end-user warranty from their manufacturer, JCI will transfer the benefits of such warranty to Customer. The foregoing remedy with respect to the Work, together with any remedy provided by goods or equipment manufacturers, shall be Customer's sole and exclusive remedies for warranty claims. Customer agrees that the one (1) year period following Substantial Completion, or such other period identified in Schedule 1, shall be a reasonable time for

purposes of submitting valid warranty claims with respect to the Work. These exclusive remedies shall not have failed of their essential purpose so long as JCI transfers the benefits of any goods or equipment end-user warranty to Customer and remains willing to re-perform any non-conforming Work for no charge within the one (1) year period described above or such other period identified in Schedule 1. NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE PROVIDED BY JCI. JCI does not guaranty that any Improvement Measures will perform in accordance with the manufacturer's specifications over the term of this Agreement, other than with respect to the limited warranty applicable to equipment actually manufactured by JCI, or if the performance failure is related to JCI's workmanship, each as described above. Customer's sole remedy for failed or non-performing Improvement Measures not related to JCI's workmanship is to pursue claims under any manufacturer's warranty claims then in effect. This warranty does not extend to any Work that has been abused, altered, or misused, or repaired by Customer or third parties without the supervision or prior written approval of JCI. Except with respect to goods or equipment manufactured by JCI and furnished to Customer hereunder, for which JCI shall provide its express written manufacturer's warranty, JCI shall not be considered a merchant or vendor of goods or equipment.

8. **CLEANUP.** JCI shall keep the premises and the surrounding area free from accumulation of waste materials or rubbish caused by the Work and, upon completion of the Work, JCI shall remove all waste materials, rubbish, tools, construction equipment, machinery, and surplus materials.

9. **SAFETY; COMPLIANCE WITH LAWS.** JCI shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work and M&V Services. Each of JCI and Customer shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively, "Laws") in connection with its performance hereunder.

10. **HAZARDOUS MATERIALS.**

A. JCI shall be responsible for removing or disposing of any JCI Hazardous Materials and for the remediation of any areas to the extent impacted by the release of JCI Hazardous Materials. For any Non-JCI Hazardous Materials, Customer shall supply JCI with any information in its possession relating to the presence of such materials if their presence may affect JCI's performance of the Work. It is JCI's policy to seek certification for facilities constructed prior to 1982 that no asbestos containing materials are present, and Customer shall at its own cost and expense provide such certification for buildings it owns or aid JCI in obtaining such certification from facility owners in the case of buildings that Customer does not own, if JCI will undertake Work in the facility that could disturb such asbestos containing materials. If Customer becomes aware of or suspects the presence of Non-JCI Hazardous Materials that may interfere with Work, it will immediately provide notice to JCI. Upon such notice, or if JCI becomes aware of or suspects the presence of Non-JCI Hazardous Materials that may interfere with Work, JCI shall promptly stop the Work in the affected area. As between Customer and JCI, Customer shall be responsible at its sole expense for removing and disposing of Non-JCI Hazardous Materials from its facilities and the remediation of any areas impacted by the release of Non-JCI Hazardous Materials in conformance with all applicable laws and addressing the impact of its disturbance before JCI continues with its Work.

B. To the fullest extent permitted by law, Customer shall indemnify and hold harmless JCI and its directors, officers, employees, agents, representatives, shareholders, affiliates, and successors and assigns, from and against any and all losses, costs, damages, expenses (including reasonable legal fees and defense costs), claims, causes of action or liability, directly or indirectly, relating to or arising from Customer's negligent use, storage, release, discharge, handling or presence of Non-JCI Hazardous Materials (actual or alleged and regardless of the cause of such condition) on, under or about the facilities, or Customer's failure to comply with this Article 10.

C. Definitions Applicable to this Article 10:

1. "Hazardous Materials" – Hazardous Materials are any material or substance that, whether by its nature or use, is now or hereafter defined or regulated as a hazardous waste, hazardous substance, pollutant or contaminant under applicable laws relating to or addressing public or

employee health and safety and protection of the environment, or which is toxic, explosive, corrosive, flammable, radioactive, carcinogenic, mutagenic or otherwise hazardous or which is or contains petroleum, gasoline, diesel, fuel, another petroleum hydrocarbon product, or polychlorinated biphenyls. Hazardous Materials specifically includes without limitation mold, lead-based paint and asbestos containing materials.

2. "JCI Hazardous Materials" – JCI Hazardous Materials are any Hazardous Materials brought onto Customer's premises by JCI in providing the Work.
3. "Non-JCI Hazardous Materials" – Non-JCI Hazardous Materials are any Hazardous Materials located on, about or under Customer's premises, other than JCI Hazardous Materials.

**11. CHANGE ORDERS.** The parties, without invalidating this Agreement, may request changes in the Work to be performed under this Agreement, consisting of additions, deletions, or other revisions to the Work ("Change Orders"). The price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted in accordance with the Change Order. Such adjustments shall be determined by mutual agreement of the parties. JCI may delay performance until adjustments arising out of the Change Order are clarified and agreed upon. Any Change Order must be signed by an authorized representative of each party. If concealed or unknown conditions are encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work, price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted. Claims for equitable adjustment may be asserted in writing within a reasonable time from the date a party becomes aware of a change to the Work by written notification. Failure to promptly assert a request for equitable adjustment, however, shall not constitute a waiver of any rights to seek any equitable adjustment with respect to such change.

**12. CUSTOMER FINANCING; TREATMENT; TAXES.** The parties acknowledge and agree that JCI is not making any representation or warranty to Customer with respect to matters not expressly addressed in this Agreement, including, but not limited to:

- a. Customer's ability to obtain or make payments on any financing associated with paying for the Improvement Measures, related services, or otherwise;
- b. Customer's proper legal, tax, accounting, or credit rating agency treatment relating to this Agreement; and
- c. the necessity of Customer to raise taxes or seek additional funding for any purpose.

Customer is solely responsible for its obligations and determinations with respect to the foregoing matters. In addition, the parties acknowledge and agree that Customer shall be responsible to comply, at its cost and expense, with all Laws that may be applicable to it relating to performance contracting, including, without limitation, any requirements relating to the procurement of goods and/or services and any legal, accounting, or engineering opinions or reviews required or obtained in connection with this Agreement.

**13. INSURANCE.** JCI shall maintain insurance in the amounts set forth below in full force and effect at all times until the Work has been completed, and shall provide a certificate evidencing such coverage promptly following Customer's request therefor.

COVERAGES	LIMITS OF LIABILITY
Workmen's Compensation Insurance or self-insurance, including Employer's Liability	Statutory
Commercial General Liability Insurance	\$5,000,000 Per Occurrence \$5,000,000 Aggregate
Comprehensive Automobile Liability Insurance	\$5,000,000 Combined Single Limit
The above limits may be obtained through primary and excess policies, and may be subject to self-insured retentions.	

Customer shall be responsible for obtaining builder's risk insurance coverage for the Improvement Measures and shall at all times be responsible for any loss or casualty to the Improvement Measures. Customer shall also

maintain insurance coverage, of the types and in the amounts customary for the conduct of its business, throughout the term of this Agreement.

- a. A certificate of insurance acceptable to Customer must be provided prior to final execution of this Agreement. Any certificate of insurance provided to Customer shall accurately state that the issued insurance policies meet the requirements outlined above and must be an original certificate issued by a company licensed to do business in the State of Wisconsin or signed by an agent licensed by the State of Wisconsin. JCI shall send Customer a current and valid Certificate of Insurance upon each insurance renewal throughout the duration of this contract and JCI will provide notice in the event it fails to maintain insurance coverage limits as required above.
- b. The Commercial General Liability policy shall include the City of Milwaukee as an additional insured. Additionally, JCI shall cause its commercial general liability policy to include, by endorsement, a waiver of subrogation in favor of the City of Milwaukee, its directors, officers, agents, employees, and volunteers.
- c. JCI shall provide Customer with at least thirty (30) days' written notice of cancellation, of coverage of any and all insurance policies required by this Agreement for any reason including non-payment of premium. To ensure that such notice occurs, an endorsement must be added to the policy/policies permitting Earlier Notice of Cancellation. Such endorsement must contain the following stipulation: "We will mail notice of cancellation (including for nonpayment of premium), to the organization shown in the schedule. We will mail the notice at least thirty (30) days before the effective date of the action." A copy of the endorsement of Earlier Notice of Cancellation must be submitted with the Certificate of Insurance.

**14. INDEMNIFICATION.** JCI shall indemnify, defend, and hold Customer harmless from all claims, demands, or suits of any kind, including all legal costs and attorney's fees, for any third-party injury, loss, or damage for personal injury, including death, and damage to tangible property, caused by the intentional misconduct or the negligent act or omission of JCI, its directors, employees, agents, and subcontractors. To the extent consistent with Wis. Stat. §§ 893.80 and 895.46(1)(a), Customer agrees to hold harmless JCI, its officers, agents, directors, and employees, from all third-party claims, demands, or suits for personal injury, including death, and damage to tangible property, including all legal costs and attorney's fees, resulting from the intentional misconduct of Customer's employees, or any negligent act or omission by Customer's employees or agents, while acting in the scope of employment. Nothing in this provision shall be construed as a waiver by Customer of any immunity or defense provided by statutory or common law.

**15. LIMITATION OF LIABILITY.** Neither JCI nor Customer will be responsible to the other for any special, indirect, consequential, remote, punitive, exemplary, loss of profits or revenue, loss of use, or similar damages, regardless of how characterized and regardless of a party having been advised of the possibility of such potential losses or relief, arising in any manner from this Agreement, the Work, the Improvement Measures, the premises, the M&V Services, or otherwise. WITHOUT LIMITING JCI'S EXPRESS OBLIGATIONS UNDER THE ASSURED PERFORMANCE GUARANTEE, JCI'S liability under this agreement, regardless of the form of action, shall in no event exceed the amount of the payments actually received by jci under schedule 4. If this Agreement covers fire safety or security equipment, Customer understands that JCI is not an insurer regarding those services, and that JCI shall not be responsible for any damage or loss that may result from fire safety or security equipment that fails to prevent a casualty loss. The foregoing waivers and limitations are fundamental elements of the basis for this Agreement between JCI and Customer, and each party acknowledges that JCI would not be able to provide the work and services contemplated by this Agreement on an economic basis in the absence of such waivers and limitations, and would not have entered into this Agreement without such waivers and limitations.

**16. FORCE MAJEURE EVENTS.** Neither party will be responsible to the other for damages, loss, injury, or delay caused by Force Majeure Events. As used herein, "Force Majeure Events" are conditions that are beyond the reasonable control and without the intentional misconduct or negligence of a party, either foreseeable or unforeseeable, including, without limitation, severe weather, flooding, seismic disturbances, acts of God, acts or omissions of government agencies, condemnation, strikes, labor disputes, epidemics, pandemics, disease,

quarantines or other public health risks and/or responses, fires, explosions or other casualties, thefts, vandalism, riots or war, acts of terrorism, electrical power outages, interruptions or degradations in telecommunications, computer, or electronic communications systems, changes in Laws, data breach, cyber-attacks, ransomware, or unavailability, delayed delivery or an increase of 5% or more in cost of any parts, materials or supplies to be used in the project between date of contract and date of installation. If a party is delayed in achieving one or more of its schedule milestones set forth in the Agreement due to a Force Majeure Event, the affected party will be entitled to extend the relevant completion date by the magnitude of the Force Majeure Event plus additional time to overcome the effect of the delay. If the Force Majeure Event directly or indirectly increases JCI's cost to perform, Customer is obligated to reimburse JCI for such increased costs.

## **17. TERMINATION**

- a. Customer may terminate this Agreement at any time for any reason by giving at least thirty (30) days' written notice to JCI. If Customer terminates this Agreement as provided in this paragraph, JCI will be paid for those services actually and satisfactorily rendered, or goods actually and satisfactorily delivered and the Assured Performance Guarantee shall terminate.
- b. If either party fails to fulfill in a timely and proper manner any of its obligations or violates any of the provisions of this Agreement, the non-breaching party shall have the right to terminate this Agreement. The non-breaching party shall notify the breaching party of its intent to terminate by giving the breaching party written notice at least five (5) business days before the effective date of the termination and identifying the alleged deficiencies in the breaching party's performance, and shall give the breaching party thirty (30) days to cure such deficiencies prior to termination, provided in the event the nature of the breach is not reasonably capable of cure within thirty (30) days the party claimed to be in breach shall not be terminated so long as it has commenced efforts to pursue a cure and is diligently pursuing the cure. Notwithstanding the foregoing, JCI shall not be relieved of liability to City for damages sustained by City by virtue of any breach of the Agreement, and City shall retain its remedies under law.

**18. JCI'S PROPERTY.** All materials furnished or used by JCI personnel and/or JCI subcontractors or agents at the installation site, including documentation, schematics, test equipment, software and associated media remain the exclusive property of JCI or such other third party. Customer agrees not to use such materials for any purpose at any time without the express authorization of JCI. Customer agrees to allow JCI personnel and/or JCI subcontractors or agents to retrieve and to remove all such materials remaining after installation or maintenance operations have been completed. Customer acknowledges that any software furnished in connection with the Work and/or M&V Services is proprietary and subject to the provisions of any software license agreement associated with such software.

**19. DISPUTES.** JCI and Customer will attempt to settle any controversy, dispute, difference, or claim between them concerning the performance, enforcement, or interpretation of this Agreement (collectively, "Dispute") through direct discussion in good faith, but if unsuccessful, the parties agree that for any claim or suit or other dispute relating to this Agreement that cannot be mutually resolved, jurisdiction and venue shall be in Milwaukee County, Wisconsin, for matters arising under state law or, should federal courts have jurisdiction, the eastern district of Wisconsin. The parties agree to submit themselves to the jurisdiction of said courts, to the exclusion of any other court that may have jurisdiction over such a dispute according to any other law.

**20. GOVERNING LAW.** This Agreement and the construction and enforceability thereof shall be interpreted in accordance with the laws of the State of Wisconsin.

**21. 179D BENEFITS.** As a result of JCI's design and implementation of this Project, a federal income tax deduction under Section 179D of the Internal Revenue Code ("IRC 179D") may become available to JCI as the party primarily responsible for designing energy efficiency improvements implemented at Customer's facilities. Congress provided in IRC 179D(d)(4) for government owners, which do not pay income tax and are thus ineligible to use this deduction, to allocate the deduction to the party primarily responsible for designing the

energy efficiency improvements, here JCI. Customer hereby agrees to allocate to JCI such deduction and any similar deduction enacted by Congress to replace IRC 179D. Customer shall cooperate with JCI by executing and promptly returning to JCI, a written allocation and declaration required by IRC 179D. JCI will prepare and is responsible for the accuracy of any allocation documents and all accompanying documentation provided for Customer's execution. Notwithstanding anything to the contrary herein, Customer makes no representation concerning the availability or applicability of any such tax deduction benefits or of their ability to be allocated to or claimed by JCI. JCI assumes all risk related to such allocation and deduction.

- 22. CONSENTS; APPROVALS; COOPERATION.** Whenever Customer's consent, approval, satisfaction or determination shall be required or permitted under this Agreement, and this Agreement does not expressly state that Customer may act in its sole discretion, such consent, approval, satisfaction or determination shall not be unreasonably withheld, qualified, conditioned or delayed, whether or not such a "reasonableness" standard is expressly stated in this Agreement. Whenever Customer's cooperation is required by JCI in order to carry out JCI's obligations hereunder, Customer agrees that it shall act in good faith and reasonably in so cooperating with JCI and/or JCI's designated representatives or assignees or subcontractors. Customer shall furnish decisions, information, and approvals required by this Agreement in a timely manner so as not to delay the performance of the Work or M&V Services.
- 23. FURTHER ASSURANCES.** The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.
- 24. INDEPENDENT CONTRACTOR.** The relationship of the parties hereunder shall be that of independent contractors. Nothing in this Agreement shall be deemed to create a partnership, joint venture, fiduciary, or similar relationship between the parties. JCI agrees that the Work shall be performed in accordance with generally accepted professional practices and in a manner consistent with the customary level of care and skill exercised under similar conditions by members of JCI's profession practicing in Wisconsin. Performance of the Work shall conform to all applicable federal, state and local laws and regulations.
- 25. POWER AND AUTHORITY.** Each party represents and warrants to the other that (i) it has all requisite power and authority to execute and deliver this Agreement and perform its obligations hereunder, (ii) all corporate, board, body politic, or other approvals necessary for its execution, delivery, and performance of this Agreement have been or will be obtained, and (iii) this Agreement constitutes its legal, valid, and binding obligation.
- 26. SEVERABILITY.** In the event that any clause, provision, or portion of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or materially impair the benefits intended to inure to either party under this Agreement.
- 27. COMPLETE AGREEMENT.** It is understood and agreed that this Agreement contains the entire agreement between the parties relating to all issues involving the subject matter of this Agreement. No binding understandings, statements, promises or inducements contrary to this Agreement exist. This Agreement supersedes and cancels all previous agreements, negotiations, communications, commitments and understandings with respect to the subject matter hereof, whether made orally or in writing. Each of the parties to this Agreement expressly warrants and represents to the other that no promise or agreement which is not herein expressed has been made to the other, and that neither party is relying upon any statement or representation of the other that is not expressly set forth in this Agreement. Each party hereto is relying exclusively on the terms of this Agreement, its own judgment, and the advice of its own legal counsel and/or other advisors in entering into this Agreement. Customer acknowledges and agrees that any purchase order issued by Customer associated with this Agreement is intended only to establish payment authority for Customer's internal accounting purposes. No purchase order shall be considered a counteroffer, amendment, modification, or other revision to the terms of this Agreement.
- 28. HEADINGS.** The captions and titles in this Agreement are for convenience only and shall not affect the interpretation or meaning of this Agreement.

- 29. COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which when taken together shall constitute one single agreement between the parties.
- 30. NOTICES.** All notices or communications related to this Agreement shall be in writing and shall be deemed served if and when sent by facsimile or mailed by certified or registered mail: to Johnson Controls, Inc. at the address listed on the first page of this Agreement, ATTN: Regional Solutions Manager, with a copy to Johnson Controls, Inc., ATTN: General Counsel – Building Efficiency Americas, 507 East Michigan Street, Milwaukee, Wisconsin, 53202; and to Customer at the address listed on the first page of this Agreement.
- 31. SOFTWARE AND DIGITAL SERVICES.** Use, implementation, and deployment of software and hosted software products proprietary to JCI (“Software”) offered under this Agreement shall be subject to, and governed by, JCI’s standard terms for such Software and Software related professional services in effect from time to time at <https://www.johnsoncontrols.com/techterms> (collectively, the “Software Terms”). Applicable Software Terms are incorporated herein by this reference. Other than the right to use the Software as set forth in the Software Terms, JCI and its licensors reserve all right, title, and interest (including all intellectual property rights) in and to the Software and improvements to the Software. The Software that is licensed hereunder is licensed subject to the Software Terms and not sold. If there is a conflict between the other terms herein and the Software Terms, the Software Terms shall take precedence and govern with respect to rights and responsibilities relating to the Software, its implementation and deployment and any improvements thereto.
- 32. CONFIDENTIALITY & PUBLIC RECORDS LAW.** In this Agreement, “Documents” means are all reports, studies, analysis, memoranda, information, records, and related data and materials created as a result of this Agreement. All of the Documents are confidential and JCI agrees that it will not, without prior written approval from Customer, make the Documents available to any individual, agency, public body or organization except as required by the Agreement or by any applicable law or legal process, provided such confidentiality obligations related to the Documents, shall exclude: (a) information in the possession of the party receiving the Document or information (the “Recipient”) before its receipt from the party disclosing the Document or information (“Disclosing Party”) including as part of Recipient’s own development process, without obligation of confidentiality; or (b) is or becomes available to the public through no fault of Recipient; or (c) is independently developed by the Recipient without reference to or use of the Disclosing Party’s confidential information; or (d) is received from the Recipient in good faith from a third party without a known obligation of confidentiality. Upon Customer’s request, JCI shall deliver all Documents to Customer and then destroy all copies of the Documents, whether in written, electronic or other form or media, in a commercially reasonable manner, provided JCI shall be entitled to retain one copy of the Documents for professional, compliance and legal purposes subject to the confidentiality obligations herein, and shall certify in writing to Customer that all Documents have been returned to Customer and destroyed in a commercially reasonable manner at no cost to Customer. JCI shall comply with all Customer’s directions regarding the return and/or destruction of the Documents within fourteen (14) days. JCI shall notify Customer if it has knowledge of an unauthorized acquisition or use of the Documents as soon as possible, but no later than within one (1) business day of such knowledge. JCI understands that Customer is bound by the Wisconsin Public Records Law, Wis. Stat. §19.21, et. seq. Pursuant to Wis. Stat. §19.36(3), Customer may be obligated to produce, to a third (3rd) party, the records of JCI that are “produced or collected” by JCI under this Agreement (“Records”). JCI is further directed to Wis. Stat. §19.21, et. seq., for the statutory definition of Records subject to disclosure under this paragraph, and JCI acknowledges that it has read and understands that definition. Irrespective of any other term of this Agreement, JCI is obligated to: (1) retain Records for seven (7) years from the date of the Record’s creation, and (2) produce such Records to Customer if, in Customer’s determination, Customer is required to produce the Records to a third (3rd) party in response to a public records request. JCI’s failure to retain and produce Records as required by this paragraph shall constitute a material breach of this Agreement, and JCI must defend and hold Customer harmless from liability due such breach.
- 33. MISCELLANEOUS PROVISIONS**
- 33.1 This Agreement cannot be assigned by either party without the prior written consent of the other party.



33.2 This Agreement is the entire Agreement between JCI and the City and supersedes any prior oral understandings, written agreements, proposals, or other communications between JCI and the City.

33.3 Any change or modification to this Agreement will not be effective unless made in writing. This written instrument must specifically indicate that it is an amendment, change, or modification to this Agreement.

33.4 All terms in this Agreement which by their meaning are implied to survive termination shall continue in force and effect following the termination or expiration of this Agreement.

33.5 JCI shall make the Documents available to City to allow City to audit, examine, excerpt or transcribe the Documents and audit, examine, excerpt or transcribe all contracts, invoices, materials, payrolls, records of personnel, conditions of employment, and other data relating to all matters covered by this Agreement any time during normal business hours upon seven (7) business days advanced written notice. If federal or state grants or aids are involved in this Agreement, JCI shall make the Documents available to the appropriate federal or state agency or the United States Comptroller General to allow the appropriate federal or state agency or Comptroller General to audit, examine, excerpt or transcribe the Documents and audit, examine, excerpt or transcribe all contracts, invoices, materials, payrolls, records of personnel, conditions of employment, and other data relating to all matters covered by this Agreement any time during normal business hours upon seven (7) business days advanced written notice. JCI shall not charge any additional fees to City, the appropriate federal or state agency, or the Comptroller General by virtue of any additional work or costs associated with the performance of JCI's duties under this section.

33.6 JCI's work product (whether goods, services, information and communication technology services, engineering or architectural services, or construction) prepared for City pursuant to this Contract shall fully comply with, as applicable, the Americans with Disabilities Act (ADA), Sections 504 and 508 of the Rehabilitation Act of 1973 provided JCI and City may agree as to responsibilities related to ADA compliance for conditions arising out of City's existing facilities related to the Project in the Implementation Contract. With regard to JCI's work product that modifies or proposes to modify existing facilities, JCI shall be liable for any violations of the ADA resulting from JCI's failure to make its work product compliant with the ADA but not the existing facilities of the City related to the Project. If JCI is preparing work product based on specifications prepared by or on behalf of City, and JCI knows or should know based on JCI's experience in its field that such specifications are not in compliance with the ADA, JCI must notify City in writing of such non-compliance prior to commencing its Work under those specifications.

33.7 It is City's policy not to discriminate against any qualified employee or qualified applicant for employment because of an individual's sex, race, religion, color, national origin or ancestry, age, disability, lawful source of income, marital status, sexual orientation, gender identity or expression, victimhood of domestic abuse or sexual assault, past or present membership in the military service, HIV status, domestic partnership, genetic identity, homelessness, familial status, or an individual's affiliation or perceived affiliation with any of these categories ("Protected Classes"), pursuant to Milwaukee Code of Ordinances (MCO) Section 109-9. Contractors, including JCI, and their subcontractors employing any resident of the City of Milwaukee may not discriminate against any member of the Protected Classes, and such contractors must insert this clause into any subcontracts of subcontractors employing any resident of the City of Milwaukee.

33.8 All contractor's in existence prior to 1865 contracting with City shall complete an affidavit prior to entering into a contract verifying that it has searched any and all company records of investments or profits from slavery or slaveholder insurance policies during the slavery era. The names of any enslaved persons or slaveholders described in those records must be disclosed in the affidavit.

33.9 JCI is an independent contractor, and neither JCI, nor JCI's officers, employees or agents are employees of City, nor are they entitled to any fringe benefits or any other benefits to which City's employees are entitled to or are receiving. Personal income tax payments, social security contributions, insurance, and all other governmental reporting and contributions required as a consequence of JCI

receiving payment under this Contract shall be the sole responsibility of JCI. City and JCI form no joint venture or partnership under this Agreement.

33.10 Any contract (including this Agreement) in which a member of the City of Milwaukee Common Council is an interested party shall be voidable at the sole discretion of City, and City may sue to recover any amounts paid on such contract

**CITY of MILWAUKEE**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**JOHNSON CONTROLS, INC.**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## SCOPE OF WORK

### Police Department District 3 (PD)

#### ECM Summary Table:

The following table describes the Energy Conservation Measures included in the scope of work for the Police Department.

ECM#	Energy Conservation Measure (ECM) Description
PD-17	LED Lighting Retrofit
PD-19	Solar PV - 120 kWac

#### ECM: PD-17 LED Lighting Retrofit

The Police Station #3 has existing troffers, wraps, strip fixtures, and direct/indirect fixtures throughout the building. Space types include a variety of fluorescent and LED technologies.

We are proposing direct-wire TLED tubes and LED lamps. This includes Sixteen (16) wall switch occupancy sensors identified in Appendix 1 for select areas. The incandescent, screw-in and pin-based CFL fixtures will be re-lamped with LED lamps. Recessed cans will be upgraded with LED retrofit can kits. Existing LED technologies will remain as-is. Please see digitally attached Lighting room line by line survey for scope details in Appendix 1.

Bldg	No Retrofit	Retrofit	Relamp	Retrofit with a Kit or Reflector	New/ Replacement Fixture	Total Count
Police Station #3 Data Comm Center Interior	838	420	94	98	0	1450
Police Station #3 Data Comm Center Exterior	41	0	3	0	0	44

- "No Retrofit" is leaving the existing fixture as-is.
- "Retrofit w/ LEDs" is upgrading existing to fixtures with LED technology, typically involving removing existing ballasts.
- "Relamp" is installing a compatible LED lamp that uses existing fixture components as-is.
- "Retrofit with a Kit" is removing internal fixture components, leaving existing housing, and installing a LED kit designed for existing fixture profile. Some kits may alter finished appearance of fixture.
- "New/Replacement Fixture" is installing a new fixture in place of the existing.

#### ECM: PD-19 Solar PV - 120 kWac

##### **Overview**

Provide and install a roof-mounted solar photovoltaic (PV) systems at the location shown below. The final Solar PV modules, PV inverters, PV ac and dc system sizes, and PV array layout may be adjusted during final engineering and construction due to the final selection and availability of equipment and array dimensions. Project is a turnkey installation that includes WE Energies interconnection, state licensed PE stamped drawings verifying the integrity and code compliance of proposed PV system and interconnection with facility, provide stamped PE structural engineering documentation and a letter certifying that the existing structure(s) shall support the load of the proposed solar system(s).

Roof-mounted array, racking system will be clamped to standing seam roof, at a total PV system size of 165.1kWdc / 120kWac



### **Solar PV Scope of Work**

This project will utilize (303) JA Solar, JAM72D30-545/MB (545W) Modules, (153) SolarEdge S1201 optimizers and (1) SolarEdge SE120KUS PV Inverter. The PV modules will be mounted to module racking systems at a fixed angle from the horizon but in alignment with the curved roof surface.

The solar PV consists of the following materials:

- Rows of roof-mounted PV modules with rail-and-clamp based module racking system, mounted at the same angle as the roof surface.
- Racking system will consist of structural metal rails and clamps which will secure the PV modules. The PV racking system will be clamped to the metal roof standing seams using non-penetrating clamps. Roof warranty will not be affected by solar installation.
- (1) PV inverter will be installed against mechanical penthouse room exterior wall
- PV inverter AC output conductors routed along the top of the roof utilizing stand-offs and against building exterior walls to the main AC disconnect switch
- PV system main AC disconnect switch mounted against the building exterior wall at ground level for 24-hour utility and emergency services access
- Interconnection of PV AC conductors into existing customer-owned main facility electrical distribution panel

The energy generated by the PV system will be metered on site by the data acquisition system (DAS) included as part of this project and will be installed per the electric utility's specifications and requirements.

The solar PV DAS consist of the following materials:

- One (1) AlsoEnergy solar PV data acquisition / monitoring system consisting of the following:
  - One data acquisition system gateway or "brain"
  - One new customer-owned revenue-grade generation meter to meter the generation of the PV system (connected directly to the data acquisition system)

- One network switch to allow all data acquisition equipment to connect to the internet via a single network communication RJ-45 cable (Cat 5e or equal) to available RJ45 network port within (300) feet of the data acquisition system gateway.
- As part of the solar PV data acquisition / monitoring system, One (1) AlsoEnergy weather station at each of the sites which connects directly to the data acquisition system at that system site and includes the following sensors:
  - One (1) Irradiance Sensor mounted in a horizontal plane
  - At the Police Station #3 site, the subcontractor shall install a single Pyranometer (Kipp Zonen). There will be 1 total pyranometer(s) included in the project.

### Material Requirements

- Fasteners and hardware throughout system shall be stainless steel or material of equivalent corrosion resistance.
- Racking components shall be anodized aluminum, hot-dipped galvanized steel, or material of equivalent corrosion resistance.
- Unprotected steel not to be used in any components.
- Electrical conduit installed in exterior environments shall be installed with weathertight conduit and fittings.

### Installation

- The Solar PV system installation shall be led by a NABCEP Certified PV Installation Professional.
- Installation shall be per contract documents.
- The PV system shall include, at a minimum, one fused DC disconnect, and one fused AC disconnect for safety and maintenance concerns.
- String combiner boxes must include properly sized fusing, and all metal equipment and components must be bonded and grounded as required by NEC.
- System wiring and conduit must comply with NEC stipulations, and all indoor and outdoor wiring, outdoor-rated or otherwise, must be enclosed in EMT conduit or covered raceway, except adjacent panel connections and under-array home run wiring.
- Wall penetrations must be sealed in compliance with NEC and NFPA regulations.
- Wiring materials and methods must adhere to industry-standard best practices, and all inter-module connections must require the use of a specialized tool for disconnecting.

### Interconnection Agreement

- JCI shall coordinate with the Utility and pay all costs and provide all engineering and information in order to obtain an interconnection agreement.

### Roofing & Roof Protection

- Protect existing roof materials to maintain existing roof system warranties. Any clamps used to attach PV racking to roof must be non-penetrating and must not damage the roofing material.
- Roofing penetrations and penetration sealing, if necessary, to be approved by Customer and Johnson Controls before any roof penetrations are made.
- Existing roof warranties shall not be voided based on the work performed.

### As-Built Documentation

- As-built documentation which represents the actual quantity and configuration of the work installed under the project. This documentation shall be forwarded to Customer upon completion of the project. This documentation is also used for Measurement and Verification purposes.

**Central Repair Garage (CRG)****ECM Summary Table:**

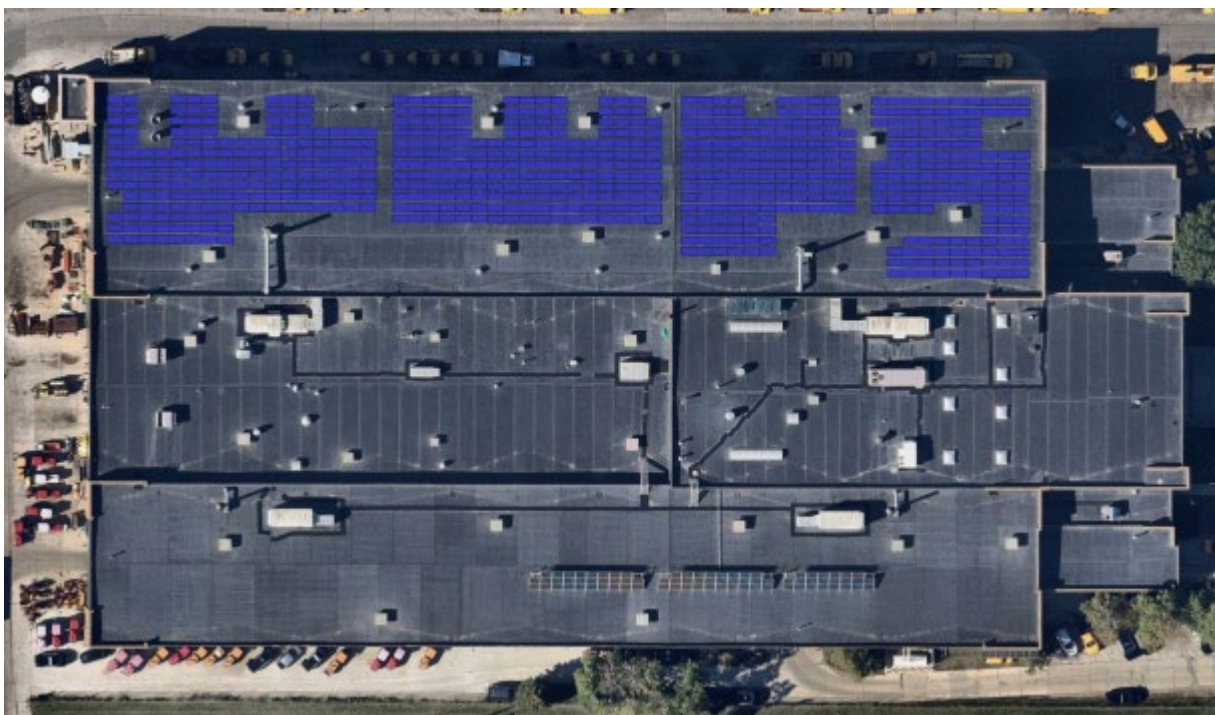
The following table describes the Energy Conservation Measures included in the scope of work for the Central Repair Garage.

ECM#	Energy Conservation Measure (ECM) Description
CRG-10a	Solar PV - 250 kWac
CRG-11	LED Lighting Retrofit

**ECM: CRG-10a Solar PV - 250 kWac****Overview**

Provide and install a roof-mounted solar photovoltaic (PV) systems at the location shown below. The final Solar PV modules, PV inverters, PV ac and dc system sizes, and PV array layout may be adjusted during final engineering and construction due to the final selection and availability of equipment and array dimensions. Project is a turnkey installation that includes WE Energies interconnection, state licensed PE stamped drawings verifying the integrity and code compliance of proposed PV system and interconnection with facility, provide stamped PE structural engineering documentation and a letter certifying that the existing structure(s) shall support the load of the proposed solar system(s).

Roof-mounted fixed-tilt ballasted array at a total PV system size of 346.1kWdc / 250kWac

**Solar PV Scope of Work**

This project will utilize (635) JA Solar, JAM72D30-545/MB (545W) Modules, and (4) Sunny Tripower\_Core1 62-US-41 (SMA) PV Inverters. The PV modules will be mounted to module racking systems at a fixed angle from the horizon.

The solar PV consists of the following materials:



- Rows of fixed tilt ballasted roof-mounted PV modules with module racking system and mounted at an angle of 9° up from the flat roof surface.
- Racking system will consist of structural metal bars which connect and secure the PV modules together with integrated pans where concrete ballast blocks will be placed to hold the system down and prevent movement. There may be penetrations into the roof required to secure the racking system which will be determined during the final racking system design.
- Rubber feet or slip sheets of material matching the roofing surface material to be placed between new Solar PV equipment in any location where metal parts of that equipment would come into contact with the roof surface
- (4) PV inverters and AC combiner panelboard will be installed against mechanical penthouse room exterior wall
- PV system AC output conductors routed from AC combiner panelboard along the top of the roof utilizing stand-offs and against building exterior walls to the main AC disconnect switch
- PV system main AC disconnect switch mounted against the building exterior wall at ground level for 24-hour utility and emergency services access
- Interconnection of PV AC conductors into existing customer-owned main facility electrical distribution panel

The energy generated by the PV system will be metered on site by the data acquisition system (DAS) included as part of this project and will be installed per the electric utility's specifications and requirements.

The solar PV DAS consist of the following materials:

- One (1) Also Energy solar PV data acquisition / monitoring system consisting of the following:
  - One data acquisition system gateway or "brain"
  - One new customer-owned revenue-grade generation meter to meter the generation of the PV systems (connected directly to the data acquisition system)
  - One network switch to allow all data acquisition equipment to connect to the internet via a single network communication RJ-45 cable (Cat 5e or equal) to available RJ45 network port within (300) feet of the data acquisition system gateway.
  - As part of the solar PV data acquisition / monitoring system, One (1) AlsoEnergy weather station at each of the sites which connects directly to the data acquisition system at that system site and includes the following sensors:
    - One (1) Irradiance sensor in the plane of the largest array.

### Material Requirements

- Fasteners and hardware throughout system shall be stainless steel or material of equivalent corrosion resistance.
- Racking components shall be anodized aluminum, hot-dipped galvanized steel, or material of equivalent corrosion resistance.
- Unprotected steel not to be used in any components.
- Electrical conduit installed in exterior environments shall be installed with weathertight conduit and fittings.

### Installation

- The Solar PV system installation shall be led by a NABCEP Certified PV Installation Professional.
- Installation shall be per contract documents.
- The PV system shall include, at a minimum, one fused DC disconnect and one fused AC disconnect for safety and maintenance concerns.
- String combiner boxes must include properly-sized fusing, and all metal equipment and components must be bonded and grounded as required by NEC.
- System wiring and conduit must comply with NEC stipulations, and all indoor and outdoor wiring, outdoor-rated or otherwise, must be enclosed in EMT or RIGID conduit or covered raceway, except adjacent panel connections and under-array home run wiring.
- Wall penetrations must be sealed in compliance with NEC and NFPA regulations.
- Wiring materials and methods must adhere to industry-standard best practices, and all inter-module connections must require the use of a specialized tool for disconnecting.

**Interconnection Agreement**

- JCI shall coordinate with the Utility and pay all costs and provide all engineering and information in order to obtain an interconnection agreement.

**Roofing & Roof Protection**

- Protect existing roof materials to maintain existing roof system warranties. It is required to install slip sheets on EPDM, TPO and other roof systems to protect the existing roof from the impact of the racking systems set directly on those roofs.
- Provide roofing penetrations as required.
- Existing roof warranties shall not be voided based on the work performed.

**As-Built Documentation**

- As-built documentation which represents the actual quantity and configuration of the work installed under the project. This documentation shall be forwarded to JCI upon completion of the project. This documentation is also used for Measurement and Verification purposes.

**Existing 20.64kW DC Solar PV System – Operational Diagnostic Analysis**

The existing solar PV system installed in 2011 at the Central Repair Garage, consists of three SMA inverters, (2) SB-6000-US and (1) SB 7000-US, which when fully operational provide approximately 20.64kW DC to the buildings electrical system. The inverters are wired to provide AC power directly into the electrical panelboard in the upper Compressor Mechanical Room 202 thru (2) 40A and (1) 45A circuit breakers. The existing solar PV system is currently only partially operational as the #2 & #3 inverters serving combined strings #3, #4, #5 & #6 are not functional at this time. Inverter #1 appears to be functional.

JCI will inspect the non-functional inverters and their associated solar PV arrays and will perform a general electrical inspection of the associated solar PV arrays and provide troubleshooting of the causes of the non-functional inverters. JCI will make repairs limited to replacement of breakers, fuses, and basic electrical diagnostics with the intent of returning the existing solar PV system to complete functionality again with limited investment. This system is out of warranty and the scope of the work is identified above and is limited. Any repairs needed beyond this scope are not included and will be quoted separately to the customer as identified during the implementation of this scope. The diagnostic work on the 2011 system excludes tie-in of this existing Solar PV system to or monitoring from the Also Energy DAS being installed as part of the 250kWac system installation.

**ECM: CRG-11 LED Lighting Retrofit**

The Central Repair Garage has existing troffers, wraps, strip fixtures, and direct indirect fixtures throughout the building. Space types include a variety of fluorescent and LED technologies.



## Schedule 1

We are proposing most fixtures to be retrofitted with direct-wire TLED tubes. The incandescent and screw-in CFL fixtures will be re-lamped with LED lamps. The recessed cans will be upgraded with LED retrofit can kits. High bay fixtures in the main repair garage bay will be upgraded with new fixtures. Existing LED technologies will remain as-is. Please see digitally attached Lighting room line by line survey for scope details in Appendix 1.

Bldg	No Retrofit	Retrofit	Relamp	Retrofit with a Kit or Reflector	New/ Replacement Fixture	Total Count
Central Repair Garage Exterior	55	0	8	0	1	64
Central Repair Garage Interior	407	401	17	0	298	1123

- "No Retrofit" is leaving the existing fixture as-is.
- "Retrofit w/ LEDs" is upgrading existing to fixtures with LED technology, typically involving removing existing ballasts.
- "Relamp" is installing a compatible LED lamp that uses existing fixture components as-is.
- "Retrofit with a Kit" is removing internal fixture components, leaving existing housing, and installing a LED kit designed for existing fixture profile. Some kits may alter finished appearance of fixture.
- "New/Replacement Fixture" is installing a new fixture in place of the existing.

## DPW Field HQ (DPW)

### ECM Summary Table

The following table describes the Energy Conservation Measures included in the scope of work for the DPW Field Headquarters.

ECM#	Energy Conservation Measure (ECM) Description
DPW-06	RTU-2 and RTU-3 Replacement
DPW-08a	Solar PV - 200 kWac
OBEM-1	OpenBlue Enterprise Manager

### ECM: DPW-06 RTU-2 and RTU-3 Replacement

#### Existing System:

Two (2) high efficiency Constant Air Volume (CAV) Trane packaged HVAC Rooftop Units (RTU-2, 3) are located on the roof of the office building. Rooftop Unit (RTU-2) serves Assembly room 168 and is oversized for the space it serves. Rooftop Unit (RTU-3) serves the locker rooms.

#### Mechanical Scope of Work:

As indicated in tables below, rightsize and replace RTU-2 equipment based on a load calc, and upgrade with a high efficiency Single Zone Variable Air Volume (VAV) York unit. Replace and upgrade RTU-3 with a high efficiency single zone Variable Air Volume (VAV) York unit.

- Reclaim and dispose of refrigerant in accordance with state, local codes, and EPA current requirements in effect at the time of contract signing.
- Safely disconnect and demolish rooftop units and remove from job site.
- Disconnect existing electrical disconnect, gas piping and supply & return duct connections.
- Provide lifting, rigging, loading, and setting of both old and new rooftop units.
- Provide and install new high efficiency York VAV rooftop units with Economizer, VFD, smoke detector and mount on existing curb or with curb adapter as needed. Provide RTU with factory packaged controls and a BACnet card for integration to the Metasys BAS system.

## Schedule 1

- Reconnect equipment to the existing electrical power wiring. Provide labor, conduit, fittings, gauges, insulation, etc.
- Replace and resize the electrical breaker size for RTU-2 to meet the new equipment amperage.
- Reconnect gas connection and supply & return duct connections.
- Provide and install new PVC condensate drain piping with proper trap.
- Tie into existing building fire alarm system for annunciation and fan shutdown.
- Provide Start up, air balancing and system testing.
- Provide 1 hour training and validation of system operation.

### Temperature Controls Scope of Work:

Disconnect the N2 communication bus from RTU-2 and RTU-3 prior to the demolition of each unit. For RTU-2, replace the existing thermostat with a new N2 TEC thermostat. Connect the TEC to the existing N2 bus.

For RTU-3, install a new CGM control panel in the electrical closet. Install a new Zone Sensor in the Men's Locker Room and the Women's Toilet Room and wire to the control panel. Provide power and N2 communications to the CGM.

**Table 1 – New Equipment (Rightsized)**

RTU-2 HVAC ROOFTOP UNIT SCHEDULE														
TAG	Model	CFM	VENT CFM	HTG EAT/LAT	Gas Htg MBh Output	Gas Htg MBh Input	CLG. EAT (db/wb)	CLG. LAT (db/wb)	CLG. MBh	Nom. Clg. Tons	Electric (Volts/Ph)	Amps	SF HP	Dimensions
RTU-2	York ZF150S24R4B6CECD24A	5,000	1,000	52 / 85	181,500	240.0	78.1 / 65.4	56.2 / 55.6	160.0	12.5	460/3	50	1.25	DIM. 119.5"X50.75"X59". Wt. 1253 lb.

RTU Options Include VFD Intellispeed High Static, 2-Stg SS Gas, SS Drain Pan, Coil Guard, Factory Mtd. Controller, BacNet Card, Return smoke detectors, dirty filter sensors Identified equipment selection. Final unit size and characteristics to be selected and specified by the mechanical engineer on record.

**Table 2 – Existing Equipment Conditions**

### ROOFTOP UNIT SCHEDULE

UNIT	MFG.	MODEL	CLG. MBH	HTG. IN MBH	HTG. OUT MBH	TOTAL CFM	MIN. F.A. CFM	E.E.R.	HTG. EFF. %	VOLTAGE	M.C.A.	WEIGHT	ACCESSORIES
RTU-2	TRANE	YCD 301 C4L	300	250	203	10,000	1,480	10.4	81	460/3 PHASE	58	2,650	(2)(3) (6)(7)(8)

NOTE: RTU-2 will be replaced with a new unit and it shall be rightsized accordingly for the space it serves. The information above in Table 2 is provided for reference only and is the current existing conditions.

## **ECM: DPW-08a Solar PV - 200 kWac**

### **Overview**

Provide and install a roof-mounted solar photovoltaic (PV) systems at the location shown below. The final Solar PV modules, PV inverters, PV ac and dc system sizes, and PV array layout may be adjusted during final engineering and construction due to the final selection and availability of equipment and array dimensions. Project is a turnkey installation that includes WE Energies interconnection, state licensed PE stamped drawings verifying the integrity and code compliance of proposed PV system and interconnection with facility, provide stamped PE structural engineering documentation and a letter certifying that the existing structure(s) shall support the load of the proposed solar system(s), 2 physical copies and 1 digital copy of all Operations and Maintenance manuals

Roof-mounted fixed-tilt ballasted array at a total PV system size of 277.4kWdc / 200kWac

**Solar PV Scope of Work**

This project will utilize (509) JA Solar, JAM72D30-545/MB (545W) Modules and (4) Sunny Tripower\_Core1 50-US-41 (SMA) PV Inverters. The PV modules will be mounted to module racking systems at a fixed angle from the horizon.

The solar PV consists of the following materials:

- Rows of fixed tilt ballasted roof-mounted PV modules with module racking system and mounted at an angle of 9° up from the flat roof surface.
- Racking system will consist of structural metal bars which connect and secure the PV modules together with integrated pans where concrete ballast blocks will be placed to hold the system down and prevent movement. There may be penetrations into the roof required to secure the racking system which will be determined during the final racking system design. Roof warranty will not be affected by solar installation.
- Rubber feet or slip sheets of material matching the roofing surface material to be placed between new Solar PV equipment in any location where metal parts of that equipment would come into contact with the roof surface
- (4) PV inverters and AC combiner panelboard will be installed against mechanical penthouse room exterior wall
- PV system AC output conductors routed from AC combiner panelboard along the top of the roof utilizing stand-offs and against building exterior walls to the main AC disconnect switch
- PV system main AC disconnect switch mounted against the building exterior wall at ground level for 24-hour utility and emergency services access
- Interconnection of PV AC conductors into existing customer-owned main facility electrical distribution panel

The energy generated by the PV system will be metered on site by the data acquisition system (DAS) included as part of this project and will be installed per the electric utility's specifications and requirements.

The solar PV DAS consist of the following materials:

- One (1) Also Energy solar PV data acquisition / monitoring system consisting of the following:
  - One data acquisition system gateway or “brain”
  - One new customer-owned revenue-grade generation meter to meter the generation of the PV systems (connected directly to the data acquisition system)
  - One network switch to allow all data acquisition equipment to connect to the internet via a single network communication RJ-45 cable (Cat 5e or equal) to available RJ45 network port within (300) feet of the data acquisition system gateway.
  - As part of the solar PV data acquisition / monitoring system, One (1) AlsoEnergy weather station at each of the sites which connects directly to the data acquisition system at that system site and includes the following sensors:
    - One (1) Irradiance sensor in the plane of the largest array.

### **Material Requirements**

- Fasteners and hardware throughout system shall be stainless steel or material of equivalent corrosion resistance.
- Racking components shall be anodized aluminum, hot-dipped galvanized steel, or material of equivalent corrosion resistance.
- Unprotected steel not to be used in any components.
- Electrical conduit installed in exterior environments shall be installed with weathertight conduit and fittings.

### **Installation**

- The Solar PV system installation shall be led by a NABCEP Certified PV Installation Professional.
- Installation shall be per contract documents.
- The PV system shall include, at a minimum, one fused DC disconnect and one fused AC disconnect for safety and maintenance concerns.
- String combiner boxes must include properly-sized fusing, and all metal equipment and components must be bonded and grounded as required by NEC.
- System wiring and conduit must comply with NEC stipulations, and all indoor and outdoor wiring, outdoor-rated or otherwise, must be enclosed in EMT conduit or covered raceway, except adjacent panel connections and under-array home run wiring.
- Wall penetrations must be sealed in compliance with NEC and NFPA regulations.
- Wiring materials and methods must adhere to industry-standard best practices, and all inter-module connections must require the use of a specialized tool for disconnecting.

### **Interconnection Agreement**

- JCI shall coordinate with the Utility and pay all costs and provide all engineering and information in order to obtain an interconnection agreement.

### **Roofing & Roof Protection**

- Protect existing roof materials to maintain existing roof system warranties. It is required to install slip sheets on EPDM, TPO and other roof systems to protect the existing roof from the impact of the racking systems set directly on those roofs.
- Provide roofing penetrations as required.
- Existing roof warranties shall not be voided based on the work performed.

### **As-Built Documentation**

- As-built documentation which represents the actual quantity and configuration of the work installed under the project. This documentation shall be forwarded to JCI upon completion of the project. This documentation is also used for Measurement and Verification purposes.

### **ECM: OBEM-1 OpenBlue Enterprise Manager**

### **Net Zero Advisor Plus**

Term - Net Zero Advisor Plus is included for the first two (2) years of the Measurement & Verification guaranteed term.

This project will implement a single instance of OpenBlue Enterprise Manager (OBEM).

**Activation:**

Johnson Controls Digital Sales and Deployment Teams shall work with Customer to ensure Johnson Controls has access and permission to access and import utility bill information successfully into OBEM.

**Solution Design and Engineering:**

JCI Digital Deployment Team shall draft a detailed engineering document of what is included and excluded in the scope and how the solution will be delivered in what time frame. This is a detailed solutioning document that is utilized to provide the customer a look at their final dashboard (i.e. Building Names, Design Layout, etc.) that will be customized for their use as part of the deployment process.

JCI Digital Deployment Team shall provide Customer with the OBEM Solution Design and Engineering Document. Prior to execution, JCI shall verify and get acceptance of the solution document from Customer. Formal customer acceptance process shall be identified and agreed to by the Customer.

**Installation and Commissioning:**

JCI Digital Deployment Team will import a total of 10 utility accounts information via API connection to Urjanet (10 accounts) to enable the gathering of all relevant data for the features as described in this proposal. Accounts not accessible via Urjanet will require the respective providers to engage with Urjanet to facilitate the delivery of necessary data prior to any efforts by JCI to bring that information into the OpenBlue environment. Accounts with providers that refuse to provide information to Urjanet will be excluded from this scope of work.

**Provisioning and Configuration:**

JCI Digital Deployment Team shall provide licenses for all features purchased as part of this proposal.

**Data Stabilization:**

JCI Digital Sales Team shall establish data reliability, data availability, check telemetry, as well as validate custom and global rules with Customer.

**Validation and Signoff:**

JCI Digital Deployment Team shall validate that all delivery obligations as per the OBEM Solution Design and Engineering Document are demonstrated to Customer. JCI Digital Deployment Team shall update OBEM Solution Design and Engineering Document for As-Built records, if required.

**Post Support:**

JCI Digital Deployment Team shall provide elevated support for a period of two weeks immediately following implementation completion, including up to 48 hours of engagement to address and resolve issues identified as part of the UAT (User Acceptance Testing).

**Training:**

JCI Digital Customer Success shall provide end user training on OBEM software for one, 1-hour training session to be delivered via Microsoft Teams. JCI shall provide Customer with the OBEM User Guide and the Customer Adoption Handbook.

## **INCLUSIONS and EXCLUSIONS**

### **Lighting Inclusions**

- Material, labor, engineering, design, and recycling/disposal costs.
- Electrical permits and fees.
- Pricing assumes 100% access will be granted to facilities during the construction schedule. Keys, escort, and security clearance requirements will be provided in a timely manner.
- Work shall be performed in accordance with industry standards and approved safety practices. Professional performance by licensed, insured, and certified personnel skilled in lighting retrofit services.
- Lamps and ballasts removed as part of the work shall be recycled and/or disposed of in compliance with applicable regulations in effect at the time of contract signing.
- Work performed during standard 40-hour work week, Monday through Friday; weekends or overtime not included.
- Circuit breakers, contactors, switches/controls, existing fixtures, and the electrical system in general are assumed to be operational working order and compliant with current NEC requirements.
- JCI shall be given ample notice for security clearance procedures required for access to any facility.
- Maintenance stock of 1.5% of lamps and drivers is included.
- If specified materials become either temporarily or permanently unavailable for reasons beyond the control of JCI, then the expected time for performance of the work will be extended or equipment listed may be modified based on equipment availability, procurement, price, shipping, customs, etc. JCI reserves the right to provide equivalent substitutions at no price increase.
- Where Underwriters Laboratory-C listed tubular LED lamp (TLED) retrofits are proposed, external drivers will only be utilized where noted in the line-by-line scope of work and/or where existing dimming switches exist. Existing ballasts will be removed.
- Where Underwriters Laboratory-B listed tubular LED lamp (TLED) retrofits are proposed, the tubes will be direct-wired, and the existing ballast will be removed.
- Where retrofits of existing fixtures are noted, the scope includes wiping down prismatic lenses with dry cloth.
- Warranties:
  - Workmanship Warranty – 1 year workmanship guarantee in accordance with the terms and conditions of the proposal from the date of acceptance by the customer.
  - Material Warranties - Manufacturer warranties of lamps, retrofit kits, and fixtures installed as part of the project are covered by the individual manufacturer's published documentation. JCI will furnish contact information for each manufacturer. Alleged defective product may be required for return to factory for analysis.
- Design illumination levels: In the absence of code-mandated lighting requirements, industry standards have been used as a guide, primarily the most recent edition of the Illuminating Engineering Society of North America (IESNA), IESNA Recommended Practice documents and IESNA Design Guides.
- Existing lighting systems were presumed to be designed based on IESNA recommended practices. In the event current light levels are above IESNA recommendations for the space type (i.e., over-lit), light levels will be reduced. In the event light levels are below IESNA recommendations for the space type, JCI will meet or exceed current light levels. If the space is under-lit due to an inadequate spacing or quantity of fixtures from initial design, which requires adding fixtures, adding circuits, reconfiguration, or new construction, this will be brought to the attention of the customer. LED fixtures or components specified for the project are based on comparable original lumen outputs of existing equipment rather than depreciated light output values.
- Sampling of existing and post-installation illumination levels have been/will be measured in accordance with procedures recommended by IESNA using a light meter.

### **Lighting Exclusions**

- Stamped engineered drawings.
- Existing task lighting, equipment lighting, and table type light fixtures unless specified in the Line-by-Line (LxL).
- Removal or replacement of ceiling tiles unless specified in the LxL.
- The addition of lighting fixtures in areas with existing illumination deficiencies is not covered under this scope of work unless otherwise noted in the LxL. If foot-candle levels do not meet minimum standards, the customer will be notified.
- Existing fluorescent dimming systems or fixtures will remain “as is” unless otherwise noted in the LxL.
- Reconfiguration of existing fixture layout unless otherwise noted in the LxL, room by room description of work.
- Replacement of existing wiring and/or electrical issues in exterior fixtures.
- Existing fixtures that are not in a well-maintained condition including, but not limited to, rusted or embrittled in a manner which would impede retrofit.
- Any electrical wiring other than that required for the retrofit or replacement within the existing lighting fixtures, the installation of new fixtures as scheduled, the installation of occupancy sensors and other controls.
- Correction or repair of electrical system deficiencies or any NFPA, NEC, or Local Code deficiencies unless provided for in the scope.
- Modification to in-board and out-board switching is not included unless specified in the LxL.
- Repair, replacement and adjustments of existing sensors, time clocks, switches or energy management systems unless otherwise noted in the LxL.
- Calibration or adjustment of the lighting control devices post installation. JCI will set controls to the agreed upon settings at time of installation only.
- Repair or replacement of yellowed, cracked, damaged or missing fixture lenses, louvers or other components unless denoted on the JCI line by line scope of work.
- Repair or replacement of the existing Emergency and Egress Lighting Systems unless otherwise noted in the LxL.
- Replacement of defective emergency battery back-up ballast unless otherwise noted in the LxL.
- No work can be performed in asbestos contaminated areas. If asbestos is present, the scope of work may have to be adjusted unless the asbestos is abated by the Customer.
- Unless specified in the scope of work, no provisions are made to ensure that the light levels will comply with existing surveillance camera requirements. Proposed light levels will meet or exceed the current light levels of the exterior fixtures.
- Replacement of existing lighting sockets and ballast unless otherwise noted.
- Painting, plastering or any other type of repair to existing mounting surfaces after the removal or replacement of fixtures, unless otherwise noted.
- Work in areas that could not be reasonably documented during the audit (i.e., concealed locations or hidden conditions) are not included.
- Work in buildings or areas not specifically indicated on the line-by-line scope of work is excluded. Should customer desire additional areas, or buildings added into the program, JCI will provide a written estimate for change order.
- In the event of any changes to U.S. government-imposed tariffs, duties, or similar fees on imported lighting products or materials after January 19<sup>th</sup>, 2025, JCI reserves the right to adjust the material pricing to reflect the increased costs directly attributable to such changes. Any repricing will be communicated in writing to the customer, along with documentation of the percent increase due to tariff impact on the material costs as well as construction related general conditions.

**Temperature Controls Inclusions and Exclusions****Inclusions & Clarifications**

- New zone sensors or sensors that cannot be run down existing brick or block walls will be surface mounted with furnish mold or conduit with compression fittings.
- New cable installation in mechanical spaces will be in EMT to match existing installation methods in the space. New cable installation outside of the mechanical spaces per NECA standards.
- One System backup will be provided after final set points and scheduled have been determined and programmed, stored in an acceptable location retrievable by both the owner and the local JCI office.
- New graphics shall be provided for systems modified or added in this scope of work. Existing graphics at all other sites shall remain as is.
- Sixteen hours of operation instruction is included.
- One-year parts and labor warranty starting upon turnover to the customer.

**Exclusions**

- Any Labor and materials not specifically included in the "Scope" section above is excluded for the Scope of Work.
- Ethernet IP to support a WEB accessible system and or VPN connection shall be provided by the Customer.
- Repair or replacement of any existing equipment not scheduled for replacement, such as Air Handling Units, Fan Motors, Motor Starters, Dampers, Valves, and existing DDC devices not noted above is excluded from this Scope of Work.
- Unless otherwise stated, any and all overtime labor is excluded from this proposal.
- Any special freight charges are also excluded from this proposal.
- Provision/Installation/Commissioning of any standalone thermostat type control, hardwired interlock control, repair/replacement of existing control/pneumatic system devices/panels, Thermostat Guards/Covers, or any control scope of work which is not listed above, is not included/provided.

**Solar PV Exclusions**

The following items are excluded from the proposed scope of work:

- Testing for, identification of, and work with hazardous materials
- Roof replacement/repair unless specified in scope
- Rooftop walkway surface protection pads or materials
- Permanent rooftop fall-protection systems, demarcations, or barriers
- Roof structural upgrades or modifications to support the additional weight of roof-mounted solar PV equipment.
- Temporary power during tie in
- Backflow relays and any associated engineering
- Relocation of underground or overhead electrical utility equipment due to excavation or site work
- Data Acquisition System subscription and future cell modem fees beyond the first three years of data system operation are by Customer.
- Inspection, maintenance, calibration, and cleaning of equipment according to manufacturer specifications is not included
- Relocation or redesign of rooftop PV module racking systems or PV module array layouts due to rooftop obstacles or structural conditions that arise which were not present or identified in the original site audit and structural analysis
- If the roof conditions, regulatory, or utility constraints require a change in the capacity of the equipment to be installed as part of the Scope of Work, JCI shall notify the Customer to mitigate or address at adjusted cost. Energy cost avoidance shall be adjusted based on the revised design if impacted. Any such adjustments to be documented in a Change Order executed by the parties.



## Schedule 1

- Building or roof structural upgrades. If the structural capacity or conditions of the roofs or supporting components are found to be insufficient to support the additional weight of the specified solar PV arrays beyond the current design, scope, and results of the completed structural analysis, JCI shall notify the Customer to mitigate or address at adjusted cost. If the roof structural evaluation or conditions, regulatory, or utility constraints require a change in the capacity of the equipment to be installed as part of the Scope of Work, JCI shall notify the Customer to mitigate or address at adjusted cost. Energy Cost Avoidance shall be adjusted based on the revised design if impacted. Any such adjustments to be documented in a Change Order executed by the parties.
- Any reduction in savings due to the electric utility's rate schedules being switched or discontinued by the customer or electric utility company, causing a change to the electric utility energy rates the customer is currently paying as of the date of this contract
- Correction of any existing applicable building code violations and Federal Americans with Disabilities Act (ADA) violations identified by JCI during the execution of the Work. Such violations will be brought to the attention of the Customer for remedy
- Resolution of existing design, service, and or distribution conditions known or unknown
- Repair or replacement of existing electrical equipment and distribution system, except the equipment described in the Scope of Work (Defective equipment identified by JCI during implementation of the Scope of Work will be brought to the attention of the Customer)
- Maintenance and operation of the facility network internet connection to the Solar PV System Data Acquisition Systems at each of the (3) sites
- Internet network connection port for data acquisition systems including network access and management

### **Solar PV Clarifications**

- In the event that any of the proposed locations are determined to not be a viable option, the scope of work for this ECM shall be reduced subject to all necessary approvals, including Customer's written approval by amendment and the costs associated with the reduced scope shall be credited to the Customer. The guaranteed savings shall also be adjusted accordingly by a formal written amendment to the Agreement. All adjustments require Customer's written approval and must maintain a positive cash flow as set forth in the contract documents.

### **All Scope General Clarifications**

- If specified materials become either temporarily or permanently unavailable for reasons beyond the control of JCI, then the expected time for performance of the work will be extended or equipment listed may be modified based on equipment availability, procurement, price, shipping, customs, etc. JCI reserves the right to provide equivalent substitutions at no price increase.
- Modifications required due to existing code violations are not included.
- Repair or replacement of customer-owned electrical equipment and the electrical distribution system, (except the equipment described in the Scope of Work) is not included. Defective equipment identified by JCI during implementation of the Scope of Work will be brought to the attention of the Customer.
- Costs associated with delays due to work performed to facilitate implementation, including, but not limited to, hazardous material surveys, hazardous material abatement or removal, and repair or replacement of existing equipment, are not included.
- Correction of any existing applicable building code violations and Federal Americans with Disabilities Act (ADA) violations identified by JCI during the execution of the Work. Such violations will be brought to the attention of the Customer for remedy.
- Resolution of existing design, service, and/or distribution conditions known or unknown is excluded.
- Union requirements, "Buy American", Federal Acquisition Regulations purchasing requirements, prevailing wage or Davis-Bacon requirements are not included.
- Inspection and testing of the Fire Alarm System is by others.

## **Schedule 1**

Provision/Installation/Commissioning of any Fire Alarm Systems, Fireman's Override Panel(s), Smoke Control System (and/or Smoke Detectors), Fire/Smoke or Smoke Damper/Actuators, Fire Dampers, Lighting Control Panels, Refrigerant Detection Systems, Security and Access Systems, Heat Trace, Water/Gas/Utility Metering, or any control scope of work which is not listed above, is not included/provided.

## ASSURED PERFORMANCE GUARANTEE

### I. PROJECT BENEFITS

**A. Certain Definitions.** For purposes of this Agreement, the following terms have the meanings set forth below:

**Annual Project Benefits** are the portion of the projected Total Project Benefits to be achieved in any one year of the Guarantee Term.

**Annual Project Benefits Realized** are the Project Benefits actually realized for any one year of the Guarantee Term.

**Annual Project Benefits Shortfall** is the amount by which the Annual Project Benefits exceed the Annual Project Benefits Realized in any one year of the Guarantee Term.

**Annual Project Benefits Surplus** is the amount by which the Annual Project Benefits Realized exceed the Annual Project Benefits in any one year of the Guarantee Term.

Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Improvement Measures as set forth in Section IV below.

**Guarantee Term** will commence on the first day of the month next following the Substantial Completion date and will continue through the duration of the M&V Services, subject to earlier termination as provided in this Agreement.

**Installation Period** is the period beginning on JCI's receipt of Customer's Notice to Proceed and ending on the commencement of the Guarantee Term.

**Measured Project Benefits** are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Section III below.

**Non-Measured Project Benefits** are identified in Section II below. The Non-Measured Project Benefits have been agreed to by Customer and will be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below. Customer and JCI agree that: (i) the Non-Measured Project Benefits may include, but are not limited to, future capital and operational costs avoided as a result of the Work and implementation of the Improvement Measures, (ii) achievement of the Non-Measured Project Benefits is outside of JCI's control, and (iii) Customer has evaluated sufficient information to conclude that the Non-Measured Project Benefits will occur and bears sole responsibility for ensuring that the Non-Measured Project Benefits will be realized. Accordingly, the Non-Measured Project Benefits shall not be measured or monitored by JCI at any time during the Guarantee Term, but rather shall be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below.

**Project Benefits** are the Measured Project Benefits plus the Non-Measured Project Benefits to be achieved for a particular period during the term of this Agreement.

**Total Project Benefits** are the projected Project Benefits to be achieved during the entire term of this Agreement.

**B. Project Benefits Summary.** Subject to the terms and conditions of this Agreement, JCI and Customer agree that Customer will be deemed to achieve a total of \$2,089,884 in Non-Measured Project Benefits and JCI guarantees that Customer will achieve a total of \$2,569,236 in Measured Project Benefits during the term of this Agreement, for Total Project Benefits of \$4,659,120, as set forth in the Total Project Benefits table below.

## Total Project Benefits

Year	Utility Cost Avoidance (Measured)*	Utility Cost Avoidance (Non-measured)**	Operations & Maintenance Cost Avoidance**	Rebates & Grants (Not Guaranteed)	Future Capital Cost Avoidance**	Annual Project Benefits
1	\$99,334	\$40,408	\$4,088	\$64,554	\$350,000	\$558,384
2	\$101,937	\$41,507	\$4,252	\$0		\$147,696
<b>Sub-total</b>	<b>\$201,270</b>	<b>\$81,915</b>	<b>\$8,340</b>	<b>\$64,554</b>	<b>\$350,000</b>	<b>\$706,079</b>
3	\$104,608	\$42,637	\$4,422	\$530,203		\$681,870
4	\$107,350	\$43,798	\$4,599	\$0		\$155,747
5	\$110,165	\$44,990	\$4,783	\$0		\$159,938
6	\$113,054	\$46,216	\$4,974	\$0		\$164,243
7	\$116,019	\$47,475	\$5,173	\$0		\$168,667
8	\$119,063	\$48,768	\$5,380	\$0		\$173,211
9	\$122,187	\$50,097	\$5,595	\$0		\$177,879
10	\$125,394	\$51,463	\$5,819	\$0		\$182,675
11	\$128,685	\$52,866	\$6,052	\$0		\$187,603
12	\$132,064	\$54,308	\$6,294	\$0		\$192,665
13	\$135,531	\$55,790	\$6,545	\$0		\$197,866
14	\$139,091	\$57,312	\$6,807	\$0		\$203,210
15	\$142,745	\$58,876	\$7,080	\$0		\$208,701
16	\$146,496	\$60,483	\$7,363	\$0		\$214,342
17	\$150,346	\$62,135	\$0	\$0		\$212,480
18	\$154,297	\$63,832	\$0	\$0		\$218,129
19	\$158,354	\$65,576	\$0	\$0		\$223,930
20	\$162,518	\$67,368	\$0	\$0		\$229,885
<b>Total</b>	<b>\$2,569,236</b>	<b>\$1,055,904</b>	<b>\$89,224</b>	<b>\$594,756</b>	<b>\$350,000</b>	<b>\$4,659,120</b>

\* Utility Cost Avoidance (Measured) is a Measured Project Benefit. Utility Cost Avoidance figures in the table above are based on anticipated increases in unit energy costs as set forth in the table in Section IV below.

\*\* Utility Cost Avoidance (Non-measured) Operations & Maintenance Cost Avoidance, and Future Capital Cost Avoidance are Non-measured Project Benefits. Operations & Maintenance Cost Avoidance figures in the table above are based on a mutually agreed fixed annual escalation rate of four percent (4%), beginning in Year 1.

Note: JCI's M&V Services, as detailed in Schedule 2, will be provided for the first two years of the Guarantee Term. The Customer agrees the above savings will be achieved during Year 3 through Year 20 and JCI will provide no further M&V Services after Year 2.

Within sixty (60) days of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved during the Installation Period plus any Non-Measured Project Benefits applicable to such period and advise Customer of same. Any Project Benefits achieved during the Installation Period may, at JCI's discretion, be allocated to the Annual Project Benefits for the first year of the Guarantee Term. Within sixty (60) days of each anniversary of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved for the applicable year plus any Non-Measured Project Benefits applicable to such period and advise Customer of same.

**Customer acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services in accordance with Schedule 4, (iii) fails to fulfill any of its**

***responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Agreement, the Assured Performance Guarantee shall automatically terminate and JCI shall have no liability hereunder.***

**C. Project Benefits Shortfalls or Surpluses.**

- (i) *Project Benefits Shortfalls.* If an Annual Project Benefits Shortfall occurs for any one year of the Guarantee Term, JCI shall, at its discretion and in any combination, (a) set off the amount of such shortfall against any unpaid balance Customer then owes to JCI, (b) where permitted by applicable law, increase the next year's amount of Annual Project Benefits by the amount of such shortfall, (c) pay to Customer the amount of such shortfall, or (d) subject to Customer's agreement, provide to Customer additional products or services, in the value of such shortfall, at no additional cost to Customer.\*
- (ii) *Project Benefits Surpluses.* If an Annual Project Benefits Surplus occurs for any one year of the Guarantee Term, JCI may, at its discretion and in any combination, (a) apply the amount of such surplus to set off any subsequent Annual Project Benefit Shortfall during the Guarantee Term, or (b) bill Customer for the amount of payments made pursuant to Section C(i)(c) above and/or the value of the products or services provided pursuant to clause C(i)(d) above, in an amount not to exceed the amount of such surplus.\*
- (iii) *Additional Improvements.* Where an Annual Project Benefits Shortfall has occurred, JCI may, subject to Customer's approval (which approval shall not be unreasonably withheld, conditioned, or delayed), implement additional Improvement Measures, at no cost to Customer, which may generate additional Project Benefits in future years of the Guarantee Term.

## II. NON-MEASURED PROJECT BENEFITS

*Customer has furnished the foregoing information to JCI, which information forms the basis of the Non-Measured Project Benefits. Customer agrees that the Non-Measured Project Benefits are reasonable, and that the installation of the Improvement Measures will enable Customer to take actions that will result in the achievement of such Non-Measured Project Benefits.*

ECM#	ECM Description
DPW-06	RTU CAV-to-VAV (Office Bldg.) (RTU-2, 3)
CRG-11	LED Lighting Retrofit
PD-17	LED Lighting Retrofit
PD-19	Solar PV - 120 kWac
CRG-10a	Solar PV - 250 kWac
DPW-08a	Solar PV - 200 kWac

### **Non-measured Energy Savings:**

#### **DPW-06 RTU CAV to VAV (Office Bldg.) (RTU-2, 3)**

The savings associated with this ECM are to be derived from right-sizing the RTUs and conversion from constant air volume (CAV) to variable air volume (VAV). Listed below are the calculations for determining energy reduction. The Customer agrees that the assumptions and calculations are accurate and with reasonable effort by the Customer the savings will be realized.

**City of Milwaukee - Department of Public Works****DPW-06 RTU CAV-to-VAV (Office Bldg.) (RTU-2, 3)**

Replace Packaged HVAC Rooftop Units RTU-2 (right-sized) and RTU-3 with Higher SEER RTU's

	Existing	Proposed	
Total Design Cooling Load served by RTUs	40.8	28.3	Tons
Minimum Cooling Load	12.2	8.5	Tons
Supply Fan HP	15.0	10.0	HP
Supply Fan kW	10.1	6.7	kW
Ventilation CFM	2450	750	CFM

OAT	BIN HOURS	% LOAD	Cooling Load, Tons	Existing RTU kW/ton	Existing RTU kWh	Cooling Load, Tons	Proposed RTU kW/ton	Proposed RTU kWh	Proposed RTU Savings, kWh
97	5	100%	40.8	1.71	348	28.3	1.58	224	125
92	23	86%	35.2	1.64	1,329	24.5	1.51	850	479
87	65	73%	29.7	1.57	3,035	20.7	1.44	1,933	1,102
82	212	59%	24.2	1.50	7,705	16.8	1.37	4,887	2,818
77	395	46%	18.7	1.43	10,576	13.0	1.30	6,677	3,899
72	614	32%	13.2	1.36	11,036	9.2	1.23	6,932	4,104
67	687	30%	12.2	1.29	10,834	8.5	1.16	6,766	4,068
62	669	30%	12.2	1.29	10,550	8.5	1.16	6,589	3,962
57	342	30%	12.2	1.29	5,393	8.5	1.16	3,368	2,025
	3012				60,807			38,225	22,582

**Supply Fan Motor Savings**

	Existing HP	Proposed HP
RTU-2 Supply Fan	10	5
RTU-3 Supply Fan	5	5
Total Fan HP	15	10
Total Fan kW	10.071	6.714
Hour of Operation per Year		3120
kWh Savings		10,474
<b>Total kWh Savings</b>		<b>33,056</b>

**CRG-11 and PD-17 LED Lighting Retrofit**

The savings associated with this ECM are to be derived from a reduction in electric Demand (kW) costs as a result of the installation of lower wattage fixtures.

**Equations for Calculating Lighting Retrofit Savings****Demand (kW)**

$$\text{Connected kW Saving} = \sum_u [ (\text{kW/Fixture}_{\text{baseline}} \times \text{Quantity}_{\text{baseline}} - \text{kW/Fixture}_{\text{post}} \times \text{Quantity}_{\text{post}}) ]_{t,u}$$

$$\text{Actual kW Savings} = \sum_u [ \text{Connected kW Savings}_u \times \text{Coincident Factor}_u ]_{t,u}$$

where:

- $\text{kW/fixture}_{\text{baseline}}$  = lighting baseline demand per fixture for usage group  $u$
- $\text{kW/fixture}_{\text{post}}$  = lighting demand per fixture during post-installation period for usage group. If multiple wattages are possible (i.e. multiple levels of lighting are possible) then the wattage to be used is the highest wattage
- $\text{Quantity}_{\text{baseline}}$  = quantity of affected fixtures before the lighting retrofit for usage group  $u$
- $\text{Quantity}_{\text{post}}$  = quantity of affected fixtures after the lighting retrofit for usage group  $u$
- $\text{Coincident Factor}_u$  = *Coincident* Factor is a percentage multiplier to account for Demand Diversity of each specific usage group  $u$ . This might be 100% for hallways and open offices (all fixtures on during the day), or 75% for private offices, many of which are generally vacant with lights off at any one time

An example of usage group is 4' four lamp T-8 fixtures.

#### **CRG-10a 120 kWac; DPW 8a 200 kWac; PD 19 120 kWac Solar PV**

The savings associated with this ECM are to be derived from a reduction in electric Demand (kW) utility costs as a result of the installation of solar PV systems on the Customer side of the WE Energies utility meter at each of the facilities. The power fed from the PV systems into the facility electrical infrastructure will lessen the facility electrical demand as measured at the WE Energies billing meter.

The amount of the demand savings for each facility was modeled by performing a typical-year simulation in which the expected facility load and the expected PV system output for each 15-minute interval of the year were compared, with the resulting facility load after solar PV derived as:

$$\text{Facility Load after PV}_{15\text{-min interval}} = \text{Facility Load before PV}_{15\text{-min interval}} - \text{PV Output}_{15\text{-min interval}}$$

Based on the modeled Facility Load after PV for each month/billing period and the WE Energies electric rates for each facility, the annual demand savings were computed as:

$$\text{Annual Utility Bill Demand Savings (\$)} = \text{Annual Utility Bill Demand Charges}_{\text{before PV}} (\$) - \text{Annual Utility Bill Demand Charges}_{\text{after PV}} (\$).$$

#### **Non-measured Operations & Maintenance Benefits**

ECM#	ECM Description
CRG-11	LED Lighting Retrofit
PD-17	LED Lighting Retrofit

Customer will realize Operations & Maintenance Benefits to be derived from reduced cost of replacement materials as a result of the installation of new lighting lamps, ballasts, and fixtures as detailed in Schedule 1. These Operations and Maintenance benefits have been calculated as follows.

##### **Material Savings (Project or Warranty Term)**

**Lamp Unit Cost per Hour** = Average Lamp Cost ÷ Average Lamp Life .

**Ballast Unit Cost per Hour** = Average Ballast Cost ÷ Average Ballast Life.

**Existing Annual Lamp Material Cost** = Existing Burn Hours × Quantity of Lamps × Lamp Unit Cost per Hour .

**Existing Annual Ballast Material Cost** = Existing Burn Hours × Quantity of Ballasts × Ballast Unit Cost per Hour.

**Proposed Annual Lamp Material Cost** = Existing Burn Hours × Quantity of Lamps × Lamp Unit Cost per Hour .

**Proposed Annual Ballast Material Cost** = Existing Burn Hours × Quantity of Ballasts × Ballast Unit Cost per Hour.

**Proposed Annual Material Cost** = Proposed Burn Hours × ((Quantity of Lamps × Lamp Unit Cost per Hour) + (Quantity of Ballasts × Ballast Unit Cost per Hour)).



**Annualized Project Term Material Savings** =  $((\text{Project Term} \times (\text{Existing Annual Lamp Material Cost} + \text{Existing Annual Ballast Material Cost})) - ((\text{Project Term} - \text{Proposed Lamp Warranty Period}) \times \text{Proposed Annual Lamp Material Cost}) + ((\text{Project Term} - \text{Proposed Ballast Warranty Period}) \times \text{Proposed Annual Ballast Material Cost})) \div \text{Project Term}$ .

**Annualized Warranty Term Material Savings** =  $((\text{Existing Annual Lamp Material Cost} \times \text{Proposed Lamp Warranty Period}) + (\text{Existing Annual Ballast Material Cost} \times \text{Proposed Ballast Warranty Period})) \div \text{Project Term}$ .

#### **Maintenance Labor Savings - Operational Savings**

##### **Maintenance Labor Savings (Project, \*Warranty, & \*\*Year-One Over Term)**

**Annual Cost Avoidance** = Cost of Existing System Failures - Cost of Proposed System Failures

**Existing Failures** = Existing Lamp Failures + Existing Ballast/Driver Failures

**Existing Lamp Failures** =  $[\text{Line item Existing Burn Hours} \div \text{Rated Lamp Life}] \times \text{Lamps per Fixture} \times \text{Total Fixtures}$

**Existing Ballast/Driver Failures** =  $[\text{Line item Existing Burn Hours} \div \text{Rated Ballast Life}] \times \text{Ballasts per Fixture} \times \text{Total Fixtures}$

##### **Rate of Replacement**

**Lamp Time to Replace** = 60 minutes  $\div$  Maint. Lamp Replacement per Hour

**Ballast Time to Replace** = 60 minutes  $\div$  Maint. Ballast Replacement per Hour

**Proposed Failures** = Proposed Lamp Failures + Proposed Ballast/Driver Failures

**Proposed Lamp Failures** =  $[(\text{Line item Proposed Burn Hours} \div \text{Rated Lamp Life}) \times \text{Lamps per Fixture} \times \text{Total Fixtures}]$

**Proposed Ballast/Driver Failures** =  $[(\text{Line item Proposed Burn Hour} \div \text{Rated Ballast Life})] \times \text{Lamps per Fixture} \times \text{Total Fixtures}$

##### **System Maintenance Costs**

**Cost of Existing System Failures** =  $[(\text{Existing Failures} \div \text{Rate of Replacement}) \times \text{Labor Rate}]$

**Cost of Proposed System Failures** =  $[(\text{Proposed Failures} \div \text{Rate of Replacement}) \times \text{Labor Rate}]$

##### **\*Warranty Term**

Calculates annual existing and proposed labor cost savings only for the duration of the warranty period of the new installed equipment (lamp type and ballast/driver) and provides an averaged annual value for payback calculation purposes.

##### **\*\*Year-One over Term**

First-Year Annual Cost Avoidance  $\div$  Finance Term (First year Savings normalized as an annual cashflow for payback calculation purposes)

### III. MEASUREMENT AND VERIFICATION METHODOLOGIES

*The following is a brief overview of the measurement and verification methodologies applicable to the Improvement Measures set forth below. JCI shall apply these methodologies, as more fully detailed in the guidelines and standards of the International Measurement and Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP), in connection with the provision of M&V Services hereunder.*

#### Option A: Partially Measured Retrofit Isolation

Measured Project Benefits are determined by partial field measurement of the energy use of the system(s) to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Measurements will be short-term with only one-time measurements before and after the Installation Period.

Partial measurement means that some but not all parameters will be measured. Careful review of the design and installation of Improvement Measures is intended to demonstrate that the stipulated values fairly represent the probable actual values. Agreed-upon values will be shown in the measurement and verification plan, along with analysis of the significance of the error they may introduce. Engineering calculations using short-term pre and post-retrofit measurements and stipulations are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option A:

ECM#	ECM Description
CRG-11	LED Lighting Retrofit
PD-17	LED Lighting Retrofit

The savings for these ECMs are generated through a reduction in energy used by the lighting system; therefore, the measurement boundary is the lighting system itself.

Key Parameter	Measurement Frequency	Measurement Description
Pre- and Post-Installation Fixture Power Draw (kW)	Short-term	<p>The pre-retrofit power draw is based upon typical wattages as published by ANSI (American National Standards Institute).</p> <p>The post-installation wattage of the impacted fixtures will be measured one time on a sample of fixtures meeting the 80/20 sampling plan – assuming a coefficient of variance of 0.5 – will be measured using a true RMS meter after the completion of the retrofit. Fixtures with similar rated wattages, counts and types will be grouped together with a post-retrofit code. Non measured wattages will use ANSI wattage values. The savings will be updated accordingly.</p>
Estimated Parameters	Assumed Value	Justification, Source and Description
Burn Hours	See Burn Hours table below.	The lighting system annual run hours by space type are agreed to be as shown in the table below. These run hours are based on interviews discussed with the customer during the audit process. These values will not be measured.

Key Parameter	Measurement Frequency	Measurement Description
Coincident Factor	See Coincidence Factors table below.	The coincident factor is estimated based on the number of fixtures in a space type expected to be operating at the same time during the on-peak period – and is agreed to remain at the same value after the retrofit.

### Burn Hours

#### Central Repair Garage

Usage Group	Burn Hours
Lobby/Hallway/Restrooms	4641
Break Room/Classroom/Open Office/Multipurpose Private Office/Copy Room/Kitchen/Auditorium/Workroom	4641
Gym/Locker Room/workshop	4641
Vehicle Bays	4641
Storage and Janitor's Closets/Conference Rooms	510
Mechanical/Electrical	510
Exteriors (12/7)	4380

#### Police Department

Usage Group	Burn Hours
Lobby/Hallway/ /Restrooms	8760
Break Room/Classroom/Open Office/Multipurpose/ /Private Office/Copy Room/Kitchen/Auditorium/Workroom	5824
Gym/Locker Room/work shop	5824
Night Lights/Stairwell/Exit Signs/Parking Garage	8760
Storage and Janitor's Closets/Conference Rooms	728
Mechanical/Electrical	728
Exteriors (12/7)	4380

### Coincidence Factor

Annual Lighting Runtime	Coincidence Factor
Less than 100 hrs/yr	0%
Between 100 and 999 hrs/yr	50%
Between 1000 and 5999 hrs/yr	90%
6000 hrs or greater	100%
Exterior (4380 hrs/yr)	10%

**Energy (kWh)**

$$\text{kWh Savings}_{\text{Lighting}} = \sum_s [(kW/\text{Fixture}_{\text{baseline}} \times \text{Quantity}_{\text{baseline}} \times \text{Burn Hours}) - \sum_{\text{level}} (kW/\text{Fixture}_{\text{post}} \times \text{Quantity}_{\text{post}} \times \text{Burn Hours})]_{t,s}$$

where:

kW Savings<sub>u</sub> = kilowatt savings realized during the post-installation time for usage group *u*

Burn Hours = number of operating hours during the time period *t* for the usage group *s* (*s* is space type, for example offices)

Level For post-installation the level is the wattage trim level. Example levels include daylight harvesting, presentation mode and full power

**Option B: Retrofit Isolation**

Measured Project Benefits are determined by field measurement of the energy use of the systems to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods. Engineering calculations using short term, long-term or continuous pre and post-retrofit measurements are used to calculate the Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option B:

ECM#	ECM Description
PD-19	Solar PV - 120 kWac
CRG-10a	Solar PV - 250 kWac
DPW-08a	Solar PV - 200 kWac

The electrical production for this ECM is generated through a production of electricity through the solar photovoltaic arrays; therefore, the measurement boundary is the Solar PV system itself.

Parameter	Measurement Frequency	Measurement Description
Irradiance (kWh/m <sup>2</sup> )	ongoing	The irradiance will be measured using irradiance sensors: one (1) per site. A total of one (1) pyranometer will be installed and mounted in a horizontal plane: the remaining irradiance sensors will be installed in the plane of array. The value will be totalized, and the totalized value will be recorded on an hourly basis using the system software.
AC Energy (kWh)	ongoing	Also Energy solar PV data acquisition/monitoring system.

## Schedule 2

Below is a table showing the baseline monthly and total annual solar irradiance for Milwaukee, Wisconsin, based on the NREL PSM3 0.04 degree grid weather data for Milwaukee, Wisconsin (latitude/longitude 43.05, -87.9). Also shown in this table is the estimated Year 1 Energy production for the output of the PV system.

### Solar Irradiance and Estimated Energy Production

Month	Baseline Global Horizontal Irradiance (GHI): PD3 (kWh/m <sup>2</sup> )	Baseline Plane of Array Irradiance (POA): All other sites (kWh/m <sup>2</sup> )	Baseline Year 1 AC Energy output (kWh)		
			Central Repair Garage	DPW Field Hdqtrs	PD3/Comm Ctr
			(250 kWac)	(200 kWac)	(120 kWac)
January	49.7	60.9	10,905	9,472	5,182
February	73.3	86.1	18,001	15,248	8,365
March	118.8	130.9	31,844	26,198	14,765
April	141.0	148.6	40,064	32,528	18,870
May	182.7	187.2	50,820	41,094	24,263
June	193.8	196.0	52,500	42,462	25,269
July	205.7	209.8	55,514	44,951	26,534
August	175.9	183.8	49,245	39,910	23,246
September	130.1	142.3	38,799	31,749	18,036
October	89.1	101.4	28,147	23,470	12,986
November	57.9	70.9	18,008	15,594	8,400
December	47.0	60.1	11,138	9,835	5,352
<b>Year 1 Total</b>			<b>404,985</b>	<b>332,511</b>	<b>191,269</b>

The energy production guarantee shall assume the monthly baseline (reference) solar irradiance as shown above. On an annual basis (recorded monthly), the total measured AC Energy output of the PV system will be adjusted based on the actual measured global horizontal or plane-of-array solar irradiance received compared to the baseline (reference) solar irradiance (of the same type), as per the following formula:

$$P_{Adjusted} = (P_{Measured}) \left( \frac{Q_{reference}}{Q_{actual}} \right) + kWh \text{ ProdFac}$$

Where

P is energy measured in kWh

Q is solar irradiance measured in kWh/m<sup>2</sup>, either the actual measured or the reference as shown.

kWh ProdFac is kWh impact of any production factors that occur during the measurement period. Production factors are defined as events outside JCI's control that has the effect of reducing kWh generation or failures in

system operation due to maintenance that influences data collection and recording for complete and accurate data pertaining to production and weather. Other production factors include, but are not limited to, physical obstructions or interference with the solar irradiation of each array (i.e. over shadowing or shading), snow-frost-ice, utility grid outages, outages directed by the owner-Customer, casualty events, Force Majeure events, theft, vandalism, equipment failure, DAS failure (lost connection or data), or utility system permit events (system disabled). If the adjusted amount of measured energy produced is less than the baseline energy for a given Project Year, the amount of kWh shortfall will be multiplied by the applicable \$/kWh electricity rate for that Project Year, and the result will be the PV ECM Project Benefit Shortfall for that year. If the adjusted amount of measured energy produced is greater than the baseline energy for a given Project Year, the amount of kWh surplus will be multiplied by the applicable \$/kWh electricity rate for that Project Year, and the result will be the PV ECM Project Benefit Surplus for that year.

ECM Strategy: This ECM involves the installation a solar PV system as detailed in Schedule 1.

Data: The estimated energy production for this ECM is based on a computer simulation performed using the Helioscope software. This simulation incorporated the NREL PSM3 weather data for Milwaukee, Wisconsin. The PV system model used in the simulation used the PV modules and PV inverters proposed for this ECM. Loss factors such as wiring losses, inverter efficiency, module efficiency at array operating temperature, dust soiling, and all other estimated applicable losses were taken into account in the computer simulation.

Clarifications and Assumptions: The efficiencies for the proposed systems are based on information detailed above and shown in this ECM Calculation. JCI is not responsible for lack of savings due to inefficiencies arising from improper operation or lack of maintenance of the solar PV system.

JCI Responsibilities: JCI will check and verify proper installation and operation of the new PV system after system startup and report findings to the owner. JCI will provide system startup commissioning according to manufacturer's recommendations. The savings for this ECM are based on a reduction in energy consumption as detailed above.

### **Changes in Use or Condition; Adjustment to Baseline and/or Annual Project Benefits**

Customer agrees to notify JCI, within fourteen (14) days, of (i) any actual or intended change, whether before or during the Guarantee Term, in the use of any facility, equipment, or Improvement Measure to which this Schedule applies; (ii) any proposed or actual expansions or additions to the premises or any building or facility at the premises; (iii) a change to utility services to all or any portion of the premises; or (iv) any other change or condition arising before or during the Guarantee Term that reasonably could be expected to change the amount of Project Benefits realized under this Agreement.

Such a change, expansion, addition, or condition would include, but is not limited to: (a) changes in the primary use of any facility, Improvement Measure, or portion of the premises; (b) changes to the hours of operation of any facility, Improvement Measure, or portion of the premises; (c) changes or modifications to the Improvement Measures or any related equipment; (d) changes to the M&V Services provided under this Agreement; (e) failure of any portion of the premises to meet building codes; (f) changes in utility suppliers, utility rates, method of utility billing, or method of utility purchasing; (g) insufficient or improper maintenance or unsound usage of the Improvement Measures or any related equipment at any facility or portion of the premises (other than by JCI); (h) changes to the Improvement Measures or any related equipment or to any facility or portion of the premises required by building codes or any governmental or quasi-governmental entity; or (i) additions or deletions of Improvement Measures or any related equipment at any facility or portion of the premises.

## **Schedule 2**

Such a change or condition need not be identified in the Baseline in order to permit JCI to make an adjustment to the Baseline and/or the Annual Project Benefits. If JCI does not receive the notice within the time period specified above or travels to either Customer's location or the project site to determine the nature and scope of such changes, Customer agrees to pay JCI, in addition to any other amounts due under this Agreement, the applicable hourly consulting rate for the time it took to determine the changes and to make any adjustments and/or corrections to the project as a result of the changes, plus all reasonable and documented out-of pocket expenses, including travel costs. Upon receipt of such notice, or if JCI independently learns of any such change or condition, JCI shall calculate and send to Customer a notice of adjustment to the Baseline and/or Annual Project Benefits to reflect the impact of such change or condition, and the adjustment shall become effective as of the date the change or condition first arose. Should Customer fail to promptly provide JCI with notice of any such change or condition, JCI may make reasonable estimates as to the impact of such change or condition and as to the date on which such change or condition first arose in calculating the impact of such change or condition, and such estimates shall be conclusive.

## IV. BASELINE CALCULATIONS AND UTILITY RATES

The unit utility costs for the Baseline period are set forth below as "Base Utility Cost" and shall be used for all calculations made under this Schedule. The Base Utility Cost shall be escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agreed "floor" escalation rate of three percent (3%), beginning in Year 1. The Base Utility Cost for each type of utility represents the 12month average utility costs from January 2023 through December 2023.

**Central Repair Garage:**

Calendar Year 2023				
Account #:		0713388932-00183		
Meter #:		PJZT1271		
\$/kWh	On-Peak	\$0.0842	\$0.0674*	
	Off-Peak	\$0.0584		
\$/kW	Demand On-Peak	\$16.784		
	Customer Demand	\$2.330		

Calendar Year 2023	
Therms	126,696
Total \$	\$72,917
\$/Therm	\$0.5266

Usage (kWh)	On-Peak	615,121
	Off-Peak	788,478
	Total	1,403,599

\*Average value of On-Peak and Off-Peak rates used for Lighting and HVAC ECM savings calculations.

**DPW Field Headquarters:**

Calendar Year 2023					
Account #:		0713388932-00071	0713388932-00089		
Meter #:		PNXZT21770	PNXZT16419		
\$/kWh	On-Peak	\$0.0864	\$0.0865	\$0.0664*	
	Off-Peak	\$0.0541	\$0.0541		
\$/kW	Demand On-Peak	\$18.272	\$18.272		
	Customer Demand	\$3.069	\$3.069		

Calendar Year 2023	
Therms	120,640
Total \$	\$74,846
\$/Therm	\$0.5684

Usage (kWh)	On-Peak	256,029	270,564		
	Off-Peak	449,305	405,006		
	Total	705,334	675,570	1,380,904	

\*Average value of On-Peak and Off-Peak rates used for Lighting and HVAC ECM savings calculations.



**Police Department District 3 (Communications Center):**

Calendar Year 2023			Calendar Year 2023	
Account #:			0700256242-00001	
Meter #:			PJXZT1600	
\$/kWh	On-Peak	\$0.0841	\$0.0658*	
	Off-Peak	\$0.0584		
\$/kW	Demand On-Peak	\$16.606		
	Customer Demand	\$2.310		

Usage (kWh)	On-Peak	883,207
	Off-Peak	1,469,541
	Total	2,352,748

\*Average value of On-Peak and Off-Peak rates used for Lighting and HVAC ECM savings calculations.

**Solar PV ECMs – Year 1 Utility Bill Savings Rates**

The Year 1 utility bill savings for the Solar PV ECMs were modeled using the following rates, which reflect the WE Energies electric rates effective August 1, 2024, as well as the WE Energies 2024 Customer generation rates for Solar PV systems.

**Central Repair Garage and Police Dept. District 3 (Communications Center) sites:**

WE Energies rate Cp-1, 10am-10pm On-Peak, voltage level 12.47kV – 138kV. Summer period June 1 – September 30. Customer Use CGS-CU solar generation rates.

		<i>Value of Solar PV production used immediately on-site</i>	<i>Value of Solar PV production exported through utility meter</i>
\$/kWh	On-Peak Summer	\$0.0944	\$0.0959
	Off-Peak Summer	\$0.0602	\$0.0320
\$/kWh	On-Peak Winter	\$0.0820	\$0.0782
	Off-Peak Winter	\$0.0602	\$0.0314
\$/kW	Demand On-Peak Summer	\$20.674	--
	Demand On-Peak Winter	\$14.941	
	Customer Demand Summer and Winter	\$2.311	--

**DPW Field Headquarters site:**

WE Energies rate Cg-3, 9am-9pm On-Peak, voltage level Secondary. Summer period June 1 – September 30.  
Customer Use CGS-CU solar generation rates.

		<i>Value of Solar PV production used immediately on-site</i>	<i>Value of Solar PV production exported through utility meter</i>
<b>\$/kWh</b>	<b>On-Peak Summer</b>	\$0.0912	\$0.0963
	<b>Off-Peak Summer</b>	\$0.0573	\$0.0316
<b>\$/kWh</b>	<b>On-Peak Winter</b>	\$0.0912	\$0.0788
	<b>Off-Peak Winter</b>	\$0.0573	\$0.0310
<b>\$/kW</b>	<b>Demand On-Peak Summer</b>	\$18.313	--
	<b>Demand On-Peak Winter</b>	\$18.313	--
	<b>Customer Demand Summer and Winter</b>	\$3.075	--

**V. PRIMARY OPERATIONS SCHEDULE PRE & POST RETROFIT****Pre-Retrofit Facility/Area**

	HVAC	
	Time On	Time Off
Monday	7:00 AM	5:00 PM
Tuesday	7:00 AM	5:00 PM
Wednesday	7:00 AM	5:00 PM
Thursday	7:00 AM	5:00 PM
Friday	7:00 AM	5:00 PM
Saturday	9:00 AM	12:00 PM
Sunday	9:00 AM	12:00 PM
Holidays	OFF	OFF

Occupied Room Temperature During Heating Season: **68 Deg F to 72 Deg F**

Unoccupied Low Temperature Limit During Heating Season: **65 Deg F to 72 Deg F**

Heating season is **November through April**

Occupied Room Temperature During Cooling Season: **72 Deg F to 76 Deg F**

Unoccupied High Temperature Limit During Cooling Season: **76 Deg F to 80 Deg F**

**Cooling season is May through October**

**Post-Retrofit Facility/Area**

	HVAC	
	Time On	Time Off
Monday	7:00 AM	5:00 PM
Tuesday	7:00 AM	5:00 PM
Wednesday	7:00 AM	5:00 PM
Thursday	7:00 AM	5:00 PM
Friday	7:00 AM	5:00 PM
Saturday	9:00 AM	12:00 PM
Sunday	9:00 AM	12:00 PM
Holidays	OFF	OFF

Occupied Room Temperature During Heating Season: **68 Deg F to 72 Deg F**

Unoccupied Low Temperature Limit During Heating Season: **65 Deg F to 72 Deg F**

Heating season is **November through April**

Occupied Room Temperature During Cooling Season: **72 Deg F to 76 Deg F**

Unoccupied High Temperature Limit During Cooling Season: **76 Deg F to 80 Deg F**

Cooling season is **May through October**

**MEASUREMENT & VERIFICATION SERVICES**

JCI will provide the M&V Services set forth below in connection with the Assured Performance Guarantee.

1. During the Installation Period, a JCI Customer Experience Performance Specialist will track Measured Project Benefits. JCI will report the Measured Project Benefits achieved during the Installation Period, as well as any Non-Measured Project Benefits applicable to the Installation Period, to Customer within 60 days of the commencement of the Guarantee Term.
2. Within 60 days of each anniversary of the commencement of the Guarantee Term, JCI will provide Customer with an annual report containing:
  - a. an executive overview of the project's performance and Project Benefits achieved to date;
  - b. a summary analysis of the Measured Project Benefits accounting; and
  - c. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.
3. During the Guarantee Term, a JCI Customer Experience Performance Specialist will monitor the on-going performance of the Improvement Measures, as specified in this Agreement, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Customer Experience Performance Specialist will periodically assist Customer, on-site or remotely, with respect to the following activities:
  - a. review of information furnished by Customer from the facility management system to confirm that control strategies are in place and functioning;
  - b. advise Customer's designated personnel of any performance deficiencies based on such information;
  - c. coordinate with Customer's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
  - d. inform Customer of opportunities to further enhance project performance and of opportunities for the implementation of additional Improvement Measures.
4. For specified Improvement Measures utilizing an "Option A" M&V protocol, JCI will:
  - a. conduct pre and post installation measurements required under this Agreement;
  - b. confirm the building management system employs the control strategies and set points specified in this Agreement; and
  - c. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).
5. For specified Improvement Measures utilizing an "Option B" M&V protocol, JCI will:
  - a. confirm that the appropriate metering and data points required to track the variables associated with the applicable Improvement Measures' benefits calculation formulas are established; and
  - b. set up appropriate data capture systems (e.g., trend and totalization data on the facility management system) necessary to track and report Measured Project Benefits for the applicable Improvement Measure.

## CUSTOMER RESPONSIBILITIES

In order for JCI to perform its obligations under this Agreement with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Customer shall be responsible for:

1. Providing JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;
2. Providing for shut down and scheduling of affected locations during installation, including timely shutdowns of chilled water and hot water systems as needed to accomplish the Work and/or M&V Services;
3. Providing timely reviews and approvals of design submissions, proposed change orders, and other project documents;
4. Providing the following information with respect to the project and project site as soon as practicable following JCI's request:
  - a. surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;
  - b. geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the project site;
  - c. temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the project and enable JCI to perform the Work;
  - d. a legal description of the project site;
  - e. as-built and record drawings of any existing structures at the project site; and
  - f. environmental studies, reports and impact statement describing the environmental conditions, including hazardous conditions or materials, in existence at the project site.
5. Securing and executing all necessary agreements with adjacent land or property owners that are necessary to enable JCI to perform the Work;
6. Providing assistance to JCI in obtaining any permits, approvals, and licenses that are JCI's responsibility to obtain as set forth in Schedule 1;
7. Obtaining any permits, approvals, and licenses that are necessary for the performance of the Work and are not JCI's responsibility to obtain as set forth in Schedule 1;
8. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications;
9. Providing the utility bills, reports, and similar information reasonably necessary for administering JCI's obligations under the Assured Performance Guarantee within five (5) days of Customer receipt and/or generation or JCI's request therefor;
10. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by JCI;
11. Providing and installing utility sub-meters on all new construction and/or additions built during the Guarantee Term as recommended by JCI or, alternatively, paying JCI's applicable fees for calculating necessary adjustments to the Assured Performance Guarantee as a result of the new construction;
12. Providing and maintaining a dedicated telephone line and/or TCP/IP remote connection to facilitate remote monitoring of relevant equipment;
13. Promptly notifying JCI of any change in use or condition described in Section III of Schedule 2 or any other matter that may impact the Assured Performance Guarantee;

### **Schedule 3**

14. Taking all actions reasonably necessary to achieve the Non-Measured Project Benefits;
15. Maintaining any service contracts and proper O&M procedures for installed scope as not already included by JCI as set forth in Schedule 1.
16. Installation of network connections to the Solar PV Data Acquisition Systems switch to support the solar PV data acquisition system
17. Coordinate with Customer for necessary traffic controls to accommodate deliveries and crane work at associated job sites.
18. All software upgrades for BAS systems
19. All data backups, IT security, and network connectivity
20. Removal, storage, and replacement of loose furnishing to adequately perform work specified in the scope
21. Coordination with JCI project manager for an office space, adequate space for material laydown area, dumpster, etc.
22. Providing a network internet connection port within (300) feet of the solar PV data acquisition system gateways at each site. This shall be an operational RJ45 port (Cat 5e or equal) with an active and managed connection to the internet.
23. Solar PV data acquisition system post-construction ongoing subscription and service plan fees for each site
24. Ongoing cellular and data service plans for EV charging stations not already pre paid in this scope of work
25. Maintaining network operation and access for the solar PV data acquisition system at each site
26. Filing for grants, rebates, and tax credits that may be available. JCI will assist by providing technical documents as may be required. Rebates, grants, and tax credits are not guaranteed by JCI.
27. Providing JCI with a Sales and Use tax exemption certificate so project purchases can be made with tax exempt status and applied to project.

## PRICE AND PAYMENT TERMS

Customer shall make payments to JCI pursuant to this Schedule 4.

1. Work. The price to be paid by Customer for the Work shall be \$3,066,569. Payments (including payment for materials delivered to JCI and work performed on and off-site) shall be made to JCI as follows:

Construction Payment Schedule		
Payment	Payment Amount	Due Date
First Payment	\$1,533,285	1/1/2025
Second Payment	\$275,000	2/1/2025
Third Payment	\$275,000	3/1/2025
Fourth Payment	\$275,000	4/1/2025
Fifth Payment	\$275,000	5/1/2025
Sixth Payment	\$275,000	6/1/2025
Seventh Payment	\$158,284	7/1/2025

2. M&V Services.

JCI's M&V Services, as detailed in Schedule 2, will be provided for the first two (2) years of the Guarantee Term. The following will be due and payable when Customer receives JCI's invoice and in advance of the services JCI is to provide.

First annual payment due: \$21,650.00

Second annual payment due: \$22,300.00

## NOTICE TO PROCEED

Johnson Controls, Inc.  
12000 W Wirth Street  
Wauwatosa, Wisconsin 53222  
ATTN: Jim Bieser

Re: Notice to Proceed for City of Milwaukee Efficiency Project

Dear Mr. Bieser:

This Notice to Proceed is being issued by the City of Milwaukee ("Customer") to Johnson Controls, Inc. ("JCI") pursuant to that certain Performance Contract entered into between Customer and JCI for the purpose of notifying JCI to commence work under such contract.

In the event that this Notice to Proceed is delivered by Customer prior to the execution of the Performance Contract by Customer and JCI, Customer understands and expects JCI will incur significant costs and expenses in complying with this Notice to Proceed. In the event the Performance Contract is not executed by the parties, for any reason, Customer agrees to pay JCI for its costs and fees incurred in complying with this Notice to Proceed on a time and material basis. Customer also agrees JCI shall be entitled to a reasonable mark-up thereon for profit and overhead. Customer agrees to pay amounts billed by JCI no later than five (5) days after Customer receives JCI's payment application. JCI will continue to submit payment applications to Customer until the Performance Contract is executed. Once the Performance Contract is executed, JCI will begin submitting its payment applications to Customer in accordance with the terms and conditions set forth therein. Any amounts already paid by Customer will be credited towards the Performance Contract price.

By signing and dating this Notice to Proceed, the parties hereto agree to these terms and represent and warrant they have the authority to execute this Notice to Proceed on behalf of their respective organizations.

### City of Milwaukee

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

### **ACKNOWLEDGED & AGREED TO: Johnson Controls, Inc.**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**CHANGE ORDER**

Performance Contract dated _____, 20____ between Johnson Controls, Inc. and Customer	Change Order No.	Date (mo/day/yr)
Customer City of Milwaukee		
The above referenced Performance Contract is hereby modified to the extent described below in accordance with the Terms and Conditions of the CHANGE ORDERS section thereof.		
Scope of Work changed as follows:		
Total amount of this Change Order	\$ _____	
Total Performance Contract amount as revised by this Change Order	\$ _____	
The time for completion is: <input type="checkbox"/> increased, <input type="checkbox"/> decreased, <input type="checkbox"/> unchanged. The new completion date resulting from this Change Order is:	(mo, day, yr)	
[check if applicable] Assured Performance Guarantee changed as follows:		
Unless specifically changed by this Change Order, all terms, conditions and provisions of the above referenced Performance Contract remain unchanged and in full effect.		
<b>JOHNSON CONTROLS, INC.</b>	<b>CITY OF MILWAUKEE</b>	
Signature:	Signature:	
Printed Name:	Printed Name:	
Title:	Title:	

## CERTIFICATE OF SUBSTANTIAL COMPLETION

**PARTIES:** JOHNSON CONTROLS, INC. ("JCI")  
12000 W Wirth Street  
Wauwatosa, Wisconsin 53222

City of Milwaukee ("Customer")  
200 West Wells Street  
Milwaukee, Wisconsin 53202

**PROJECT:** City of Milwaukee Efficiency Project; Performance Contract dated \_\_\_\_\_, 20\_\_\_\_  
between JCI and Customer

By executing this Certificate of Substantial Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract is substantially complete.
- b. Customer has received the manuals, warranty information, and training required under the Performance Contract.
- c. The following punch list items must be completed by JCI (check as applicable):
  - ☐ punch list attached
  - ☐ punch list complete
- d. Upon completion of the punch list items, or if such punch list items are complete, JCI and Customer shall sign the Certificate of Final Completion attached hereto.

Dated \_\_\_\_\_, 20\_\_\_\_.

**CITY OF MILWAUKEE:**

**JOHNSON CONTROLS, INC.**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

## CERTIFICATE OF FINAL COMPLETION

**PARTIES:**      JOHNSON CONTROLS, INC. ("JCI")  
                      12000 W Wirth Street  
                      Wauwatosa, Wisconsin 53222

City of Milwaukee ("Customer")  
 200 West Wells Street  
 Milwaukee, Wisconsin 53202

**PROJECT:**      City of Milwaukee Efficiency Project; Performance Contract dated \_\_\_\_\_, 20\_\_\_\_  
                      between JCI and Customer

By executing this Certificate of Final Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract has been reviewed and determined by Customer to be fully complete.
- b. Customer accepts the work as complete and hereby releases JCI's obligations under any performance and payment bonds posted for the project as of the date set forth below.

Dated \_\_\_\_\_, 20\_\_\_\_.

**CITY OF MILWAUKEE:**

**JOHNSON CONTROLS, INC.**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**[END OF DOCUMENT]**