



**COMMUNITY DEVELOPMENT BLOCK GRANT – DISASTER RECOVERY (CDBG-DR) /  
MITIGATION (CDBG-MIT)**

**AGREEMENT FOR  
PV SYSTEM, WATER STORAGE SYSTEM DESIGN, ACQUISITION AND INSTALLATION SERVICES  
FOR COMMUNITY ENERGY AND WATER RESILIENCE INSTALLATIONS PROGRAM (CEWR)  
BETWEEN THE  
PUERTO RICO DEPARTMENT OF HOUSING  
AND  
AIREKO ENERGY SOLUTION LLC**



This **AGREEMENT FOR PV SYSTEM, WATER STORAGE SYSTEM DESIGN, ACQUISITION AND INSTALLATION SERVICES (Agreement or Contract)** is entered into in San Juan, Puerto Rico, this 27 of September, 2024, by and between the **PUERTO RICO DEPARTMENT OF HOUSING (PRDOH)**, a public agency created under Act No. 97 of June 10, 1972, as amended, 3 LPRA § 441, *et seq.*, known as the "Organic Act of Department of Housing" with principal offices at 606 Barbosa Avenue, San Juan, Puerto Rico, herein represented by William O. Rodríguez Rodríguez, attorney, of legal age, single, and resident of Guaynabo, Puerto Rico, in his capacity as Secretary; and **AIREKO ENERGY SOLUTION LLC (CONTRACTOR)**, with principal offices in, Caguas, Puerto Rico, herein represented by Waldemar Edwin Toro Dávila, in his capacity as President & Partner, of legal age, married, and resident of Guaynabo, Puerto Rico, duly authorized by Corporate Resolution issued on June 24, 2024.

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**WHEREAS**, on September 2017, Hurricanes Irma and María made landfall in Puerto Rico causing catastrophic island-wide damage, knocking out power, water, and telecommunications for the entire island and its island municipalities. Hurricane María caused major structure and infrastructure damage to family homes, businesses and government facilities triggering the displacement of thousands of residents of the Island from their homes and jobs.

**WHEREAS**, under the Further Additional Supplemental Appropriations Act for Disaster Relief Requirements Act, 2018, (Division B, Subdivision 1 of the Bipartisan Budget Act of 2018, Pub. L. 115-123, approved February 9, 2018), \$8.285 billion were allocated by HUD for mitigation activities and assistance to the Government of Puerto Rico under the Community Development Block Grant – Mitigation (**CDBG-MIT**) Program. These funds are intended to provide financial assistance in areas impacted by recent disasters. Moreover, CDBG-MIT funds represent a unique and significant opportunity for Puerto Rico to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

**WHEREAS**, on August 30, 2019, a Notice was published in the Federal Register, Vol. 84, No. 169, (84 FR 45838), which described the grant requirements and procedures applicable to future allocations of CDBG-MIT funds to the Government of Puerto Rico.

**WHEREAS**, on May 12, 2021, the PRDOH Secretary and the Secretary of HUD signed Grant Agreement Number B-18-DP-72-0002; allowing PRDOH access to \$8,285,284,000 in CDBG-MIT funding, obligated under Pub. L. 115-123, as amended.

**WHEREAS**, the PRDOH is the government agency designated as the grantee of the CDBG-MIT funds allocated to the Government of Puerto Rico.

**WHEREAS**, the PRDOH is interested in contracting a highly qualified firm to assist the PRDOH with PV Systems, Water Storage System Design, Acquisition, and Installation Services for the design and build of the Community Energy and Water Resilience

Installations – Community Installations Subprogram (**CEWRI-CI**) of Community Energy and Water Resilience Installations Program under the CDBG-MIT grants, and any other federal allocation. This firm will support PRDOH’s objectives of ensuring compliance with all CDBG-MIT HUD and applicable federal and local requirements, rules and regulations, as well as in PRDOH’s objectives of the Action Plan, as amended, and adequately coordinating and monitoring all CDBG-MIT related activities.

**WHEREAS**, on January 8, 2024, the PRDOH issued Request for Proposal No. CDBG-MIT-RFP-2023-02 “PV Systems, Water Storage System Design, Acquisition, and Installation Services” with CDBG-MIT funds. This request was placed through the “Registro Unico de Subastas del Gobierno” (**RUS**, for its Spanish acronym) and the CDBG-DR Program website. Through this procurement process, PRDOH received ten (10) proposals. The proposals were evaluated by an Evaluation Committee appointed pursuant to Administrative Order No. 24-15 (**AO 24-15**) dated March 14, 2024. The Evaluation committee performed an evaluation of the Proposals based on the criteria stated in the Request for Proposals.

**WHEREAS**, on March 8, 2024, the CONTRACTOR submitted a proposal, which fully complied with the requirements set forth by the PRDOH.

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**WHEREAS**, the PRDOH desires to enter into an Agreement with **Aireko Energy Solution LLC** to secure its services and accepts the CONTRACTOR’s Proposal and reasonable costs, and the CONTRACTOR by its acceptance of the terms and conditions of this Agreement is ready, willing and able to provide the requested services contemplated under this Agreement.

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**NOW, THEREFORE**, in consideration of the mutual promises and the terms and conditions set forth herein, the PRDOH and the CONTRACTOR agree as follows:

**I. TYPE OF CONTRACT**

**Contract Type:** This is a fixed fee contract. Under this Agreement, the CONTRACTOR shall submit monthly invoices to the PRDOH based on **Attachment C** (Compensation Schedule) and as the services are rendered. Any and all changes and/or modifications to this Agreement shall be in writing and must be signed by both Parties.

**Attachments Incorporated:** The following attachments are incorporated into this Agreement by reference and are hereby made part of this Agreement:

<b>Attachment A</b>	Proposal
<b>Attachment B</b>	Scope of Services
<b>Attachment C</b>	Compensation Schedule
<b>Attachment D</b>	Performance Requirements
<b>Attachment E</b>	Insurance Requirements
<b>Attachment F</b>	HUD General Provisions
<b>Attachment G</b>	Contractor Certification Requirement
<b>Attachment H</b>	Non-Conflict of Interest Certification

All Attachments hereto are fully incorporated herewith such that the terms and conditions of the Attachments shall be as binding as any terms and conditions of this executed written Agreement. The Agreement shall prevail if any inconsistency appears between the Attachments and this Agreement.

## II. TERM OF AGREEMENT

- A. This Agreement shall be in effect and enforceable between the Parties from the date of its execution. The Term of this Agreement will be for a performance period of **twenty-four (24) months**, ending on September, 26, 20<sup>26</sup>.
- B. **Contract Extensions:** PRDOH may, at its sole discretion, extend the Agreement's term for an additional term of **twelve (12) months**, or expressed in days, **three hundred sixty-five (365) calendar days** upon mutual written agreement of the Parties.
- C. The term of this Agreement shall not exceed the lifetime of the initial Grant Agreement between PRDOH and HUD unless the term of the initial Grant Agreement is extended by HUD, in which case the Agreement nor extension shall not exceed said extended period.

## III. SCOPE OF SERVICES

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The CONTRACTOR will provide the services described in **Attachment B** (Scope of Services) of the Agreement. The Parties agree that the CONTRACTOR shall furnish all permits, consents, licenses, equipment, software, and supplies necessary to perform the Services, at the CONTRACTOR's sole cost.

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## IV. COMPENSATION AND PAYMENT

- A. The PRDOH agrees to pay the CONTRACTOR for allowable Services rendered under this Agreement in accordance with the rates and amounts described in **Attachment C** (Compensation Schedule) of this Agreement.
- B. The PRDOH will pay the CONTRACTOR, for allowable services performed during the term of this Agreement, a maximum amount not to exceed **THREE MILLION EIGHT HUNDRED SIXTY THOUSAND TWO HUNDRED ELEVEN DOLLARS (\$3,860,211.00)**; **Account Numbers: mitm11cewdohcilm 4190-13-000; mitm11cewdohcilm 6090-06-000; mitm11cewdohciun 4190-13-000; mitm11cewdohciun 6090-06-000.**
- C. Such payment shall be compensation for all allowable services required, performed, and accepted under this Agreement included in **Attachment B** (Scope of Services), **Attachment C** (Compensation Schedule), and **Attachment D** (Performance Requirements).
- D. Any additional funds to complete the services requested by the PRDOH to the CONTRACTOR will be subject to evaluation before acceptance as well as funds availability and will require a written amendment to this Agreement signed by both Parties.
- E. The CONTRACTOR shall submit an invoice to PRDOH on a monthly basis. Said invoice must be submitted including all required invoice supporting documents, including but not limited to monthly reports, timesheets, invoice and photos evidence, expense plan and/or work projections. If PRDOH determines that the submitted invoice and supporting documents are acceptable, then the invoice will be approved for payment.
- F. The services rendered under the Agreement, shall be payable within **forty-five (45) business days** from the date the invoice is received and approved by a PRDOH

representative for payment. If PRDOH raises any objections, PRDOH will return the invoice for corrections and the CONTRACTOR shall modify the invoice and return it within **five (5) business days**. Once the CONTRACTOR returns the modified invoice, the PRDOH shall resume and conclude the payment process within the next **forty-five (45) business days**, counted from receiving the duly modified invoice and approved by a PRDOH representative for payment.

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- G. An authorized representative of the PRDOH will review each invoice and, if adequate, will approve and process its payment. Payments to the CONTRACTOR shall be made by electronic funds transfer (**EFT**). PRDOH reserves the right to conduct any audits it deems necessary. The CONTRACTOR agrees to cooperate fully with any such audit or audits which includes, but is not limited to, after Agreement's expiration or termination.
  - H. While providing the services under this Agreement, the CONTRACTOR must adhere to applicable requirements of the CDBG-MIT grant. If the CONTRACTOR performs ineligible activities under the CDBG-MIT grant or program, the CONTRACTOR cannot include them in the invoice for payment to the CONTRACTOR.
  - I. CONTRACTOR shall be liable to the PRDOH for any costs disallowed pursuant to financial and/or compliance audit(s) of funds received under this Agreement. CONTRACTOR shall reimburse such disallowed costs from funds other than those CONTRACTOR received under this Agreement.
  - J. The CONTRACTOR acknowledges and agrees to repay any CDBG-MIT funds used for ineligible costs. As per, CDBG-DR/MIT Recapture of Funds Policy, as found in the CDBG-DR/MIT Website (<https://recuperacion.pr.gov/welcome/index.html>), which are herein included and made an integral part of this Agreement, as they may be updated time to time, and any local or federal regulation, as applicable.
  - K. In order for the CONTRACTOR to receive payment for any work performed hereunder, the following certification must be included in each application for payment or invoice submitted to the PRDOH for payment:

**"Under penalty of absolute nullity, I hereby certify that no public servant of the government entity is a party to or has an interest of any kind in the profits or benefits to be obtained under the contract which is the basis of this invoice, and should he be a party to, or have an interest in, the profits or benefits to be obtained under the contract, a waiver has been previously issued. The only consideration to provide the contracted goods or services under the contract is the payment agreed upon with the authorized representative of the government entity. The amount that appears in the invoice is fair and correct. The work has been performed, the goods have been delivered, and the services have been rendered, and no payment has been received therefor."**

#### **V. REIMBURSABLE EXPENSES**

The PRDOH will not reimburse any costs incurred by the CONTRACTOR not included in the approved Proposal or in an executed written amendment.



## VI. ADDITIONAL SERVICES

Should additional services be needed by the PRDOH, such additional services shall be agreed upon by the Parties in a written document signed by both Parties, prior to the issuance of a notice to proceed with the performance of such additional services.

## VII. OWNERSHIP AND USE OF DOCUMENTS

A. With the exception of the CONTRACTOR's working papers, the CONTRACTOR acknowledges the PRDOH's ownership of all information, drafts, documents, reports, papers, and other materials developed and prepared by the CONTRACTOR, its agents or representatives, for purposes of performing key obligations hereunder. In the event of any termination, which includes but is not limited to closeout process, the CONTRACTOR shall deliver such information, drafts, reports, papers and other materials to the PRDOH, in document form or as computer program data, and the CONTRACTOR recognizes the PRDOH's right to request such documentation or computer program data. If the CONTRACTOR fails to deliver said information, the PRDOH may seek a judicial order to enforce its rights.

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B. Proof of expenditures incurred by the CONTRACTOR on behalf of PRDOH must be made available to PRDOH. The CONTRACTOR agrees to maintain accurate records and files of all contract documents, correspondence, book estimates, bills, and other information related to the CONTRACTOR account. These documents shall be open for the PRDOH examination at all reasonable times during the term of this Agreement, and up to **five (5) years** from the closeout of the grant to the state concludes, or the period required by other local applicable laws and regulations.

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## VIII. DOCUMENTATION AND RECORDKEEPING

A. **Records to be Maintained:** The CONTRACTOR shall maintain records of the state and units of general local government, including supporting documentation, which must be retained for **five (5) years** from the closeout of the grant to the state concludes, or the period required by other local applicable laws and regulations, whichever is greater. Such records include but are not limited to: Records providing a full description of each activity undertaken; Records demonstrating that each activity undertaken meets one of the National Objectives of the CDBG-MIT program; Records required to determine the eligibility of activities; Records required to document the acquisition, improvement, use or disposition of real property acquired or improved with CDBG-MIT assistance; Records documenting compliance with the fair housing and equal opportunity requirements of the CDBG-MIT program regulations; Financial records as required by 24 C.F.R. § 570.506, and 2 C.F.R. part 200, including records necessary to demonstrate compliance with all applicable procurement requirements; and other records necessary to document compliance with this Agreement, any other applicable Federal statutes and regulations, and the terms and conditions of PRDOH's Federal award.

B. **Access to Records:** The CONTRACTOR shall permit the PRDOH and auditors to have access to the CONTRACTOR's records and financial statements as necessary for the PRDOH to meet its audit requirements under the Federal award.

C. **Record Retention and Transmission of Records to the PRDOH:** Prior to close out of this Agreement, the CONTRACTOR must transmit to the PRDOH records sufficient for the PRDOH to demonstrate and satisfy that all costs under this Agreement met the requirements of the Federal award.

- D. CONTRACTOR's Data and Privileged Information:** The CONTRACTOR is required to maintain confidential data demonstrating client eligibility for activities provided under this Agreement. Such data may include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of activities provided.
- E. PII Policy:** The CONTRACTOR must comply with the PRDOH CDBG-MIT personal Identifiable Information Policy, as found in the CDBG-MIT website (<https://recuperacion.pr.gov/welcome/index.html>), which is herein included and made an integral part of this Agreement, as it may be updated from time to time.

#### **IX. ACCESS TO RECORDS**

- A.** The CONTRACTOR agrees to provide the Government of Puerto Rico, PRDOH, HUD's Secretary, the Comptroller General of the United States, or any of their authorized representative's access to any books, documents, papers, and records of the CONTRACTOR which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions.
- B.** The CONTRACTOR agrees to permit any of the foregoing Parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

#### **X. NON-DISCLOSURE AND CONFIDENTIALITY**

- A. Confidential Information; Definition:** The term Confidential Information as used throughout this Section, means any information concerning PRDOH operations and that of its CONTRACTOR (e.g., the projects, computer processing systems, object and source codes and other PRDOH business and financial affairs). The term Confidential Information shall also deem to include all notes, analysis, compilation, studies and interpretation or other documents prepared by CONTRACTOR, its agents or representatives, in connection with PRDOH operations.
- B. Non-Disclosure:** CONTRACTOR agrees to take all reasonable steps or measures to keep confidential all Confidential Information and will not, at any time, present or future, without PRDOH express written authorization, signed by the Secretary of the PRDOH, use or sell, market or disclose any Confidential Information to any third party, contractor, corporation, or association for any purpose whatsoever. CONTRACTOR further agrees that, except as they relate to the normal course of the service, the CONTRACTOR will not make copies of the Confidential Information except upon PRDOH express written authorization, signed by an authorized representative of PRDOH, and will not remove any copy or sample of Confidential Information without prior signed written authorization from PRDOH. CONTRACTOR retains the right to control its work papers subject to these confidentiality provisions.
- C. Return Documents:** Upon receipt of written request from the PRDOH, CONTRACTOR will return to PRDOH all copies or samples of Confidential Information which, at the time of the notice are in CONTRACTOR's or its agent's possession. CONTRACTOR reserves the right to retain a set of its work papers.
- D. Equitable Relief:** The CONTRACTOR acknowledges and agrees that a breach of the provision of subparagraph B and C of this Section will cause PRDOH to suffer irreparable damage that could not be remedied or compensated adequately only by mere monetary retribution. The CONTRACTOR further agrees that money

damages may not be a sufficient remedy for any breach of this Section. Accordingly, the CONTRACTOR agrees that PRDOH shall have the right to seek injunctive relief and the specific performance of the provisions of this Section to enjoin a breach or attempted breach of the provision hereof, such right being in addition to any and all other rights and remedies that are available to PRDOH by law, equity, or otherwise.

#### XI. PERFORMANCE WARRANTY

- (a) CONTRACTOR warrants that it will perform all work and provide all Deliverables under this Contract in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.
- (b) CONTRACTOR warrants that all Deliverables it completes under this Contract shall: meet or exceed the standards of CONTRACTOR's trade, profession, or industry; meet or exceed the specifications set forth in the Attachments to this Agreement; and be fit for ordinary use, of good quality, and with no material defects, if applicable.
- (c) If CONTRACTOR submits Deliverables that do not meet specifications, fails to complete Deliverables timely, or fails to perform its obligation under this Contract, PRDOH may require CONTRACTOR, at its sole expense, if applicable, to:
1. repair or replace Deliverables that do not meet specifications;
  2. refund payment for Deliverables that do not meet specifications and accept the return of such Deliverables;
  3. pay liquidated damages for any past due Deliverable; and
  4. take necessary action to ensure that future performance and Deliverables meet specifications and conform to the Contract.

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#### XII. TERMINATION

- A. Termination for Cause or Default:** The PRDOH may terminate this Agreement, in whole or in part, because of CONTRACTOR's failure to fulfill any of its obligations. The PRDOH shall terminate this Agreement by delivering to the CONTRACTOR a **thirty (30) calendar day** notice of termination specifying the extent to which the performance of the service under this Agreement is terminated, the reason therefor and the effective date of termination. CONTRACTOR shall, upon written notice, be provided a **ten (10) calendar day** opportunity to cure the alleged defect that resulted in the perceived default. If the defect is not cured within that period of time, CONTRACTOR shall immediately discontinue all such services being terminated and deliver to the PRDOH all information, notes, drafts, documents, analysis, reports, compilations, studies and other materials accumulated or generated in performing the services contemplated in this Agreement, whether completed or in process. Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the PRDOH for damage sustained to PRDOH CDBG-MIT program by virtue of any breach of the Agreement by the CONTRACTOR. The PRDOH may withhold any payments to the CONTRACTOR, for the purpose of off-set or partial payment, as the case may be, of amounts owed to the PRDOH by the CONTRACTOR. PRDOH shall make payment, in accordance with the terms of this Agreement, of any amounts due to CONTRACTOR for allowable services rendered prior to the termination notice.
- B. Termination for Convenience:** The PRDOH may terminate this Agreement, in whole or in part, whenever the PRDOH determines that such termination is necessary or convenient to the Agency. The PRDOH will terminate this Agreement by delivering to the CONTRACTOR a **thirty (30) calendar days'** notice of termination specifying the extent to which the performance of the work under this Agreement is terminated,

and the effective date of termination. Upon receipt of such notice, the CONTRACTOR shall immediately discontinue all services affected and deliver to the PRDOH all information, studies and other materials property of the PRDOH. In the event of termination by Notice, the PRDOH shall only be liable for payment of services rendered up to and including the effective date of termination, taking into account the CONTRACTOR's obligation to immediately discontinue all affected services upon receipt of the termination notice. PRDOH shall make payment, in accordance with the terms of this Agreement, of any amounts due to CONTRACTOR for allowable services rendered prior to the termination notice.

**C. Termination by Unilateral Abandonment:** The PRDOH will consider this Agreement immediately terminated, in the event that the CONTRACTOR unilaterally and without prior notice, chooses to abandon (in any shape, form or fashion according to what PRDOH deduces) cease and desist in the specific performance of its general and particular duties and responsibilities as agreed in this Agreement. Upon the knowledge of such event, the PRDOH will not be held liable and will immediately, automatically, and retroactively deduct from any future reimbursement, all funds from the day such unilateral abandonment took place. The PRDOH will not be compelled to continue the performance of this Agreement, should the CONTRACTOR breach this Agreement by unilateral abandonment. For the purposes of this Section, Abandonment shall mean that CONTRACTOR voluntarily and intentionally disavows its contractual duties in a manner that is overt and without question a relinquishment of said contractual duties.

**D. Unilateral Termination:** The PRDOH may terminate this Agreement, in whole or in part, at PRDOH's sole discretion, with or without cause, at any time. The PRDOH will terminate this Agreement by delivering to the CONTRACTOR a **thirty (30) calendar days'** notice of termination specifying the extent to which the performance of the work under this Agreement is terminated, and the effective date of termination. Upon receipt of such notice, the CONTRACTOR shall immediately discontinue all services affected and deliver to the PRDOH all information, studies and other materials property of the PRDOH. In the event of termination by Notice, the PRDOH shall only be liable for payment of services rendered up to and including the effective date of termination, taking into account the CONTRACTOR's obligation to immediately discontinue all affected services upon receipt of the termination notice.

**E. Suspension:** The PRDOH may suspend this Agreement in whole or in part at any time for the PRDOH's convenience. The PRDOH shall give the CONTRACTOR **five (5) business days'** written notice of such suspension. Upon receipt of said notice the CONTRACTOR shall immediately discontinue all Services affected.

**F. Immediate Termination:** In the event the CONTRACTOR is subjected to a criminal or civil action, suit, proceeding, inquiry or court of applicable jurisdiction, or any governmental agency, or the CONTRACTOR shall be subject to an order, judgment, or opinion, issued by any federal or local authority, a court of applicable jurisdiction, or any governmental agency, in connection with the execution, delivery, and performance by the CONTRACTOR of this Agreement or the CONTRACTOR of this Agreement has been noncompliant, breach, inaccuracy of any representation, warranties, covenants, or the certifications provided herein, whether the noncompliance, breach or inaccuracy takes place before or after the execution of this Agreement, the PRDOH shall have the right to the immediate termination of this Agreement notwithstanding, any provisions to the contrary herein. This Section will apply, but is not limited to, in the event of any judgment that may obligate the

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PRDOH to terminate the Agreement pursuant to Act Number 2 of January 2, 2018, as amended, known as the Anti-Corruption Code for the New Puerto Rico.

**G. Period of Transition:** Upon termination or expiration of this Agreement, and for one hundred and eighty (**180**) calendar days, with the option of extending for two (2) additional terms of ninety (**90**) consecutive calendar days thereafter (the Transition Period), CONTRACTOR agrees to make himself available to assist the PRDOH with the transition of services assigned to CONTRACTOR by the PRDOH. CONTRACTOR shall provide to the PRDOH the assistance reasonably requested to facilitate the orderly transfer of responsibility for performance of the Services to the PRDOH or a third party designated by the PRDOH. PRDOH reserves the right to provide for the execution of a Transition Services Agreement for the Transition Period. In such instance, the CONTRACTOR will be paid at a reasonable, agreed upon, hourly rate for any work performed for the PRDOH during the Transition Period. Transition Services Agreement for the Transition Period must be in writing, signed by both Parties, and executed before the expiration of this Agreement. Moreover, during that Transition Period, all finished or unfinished records (files, data, work product) connected with this Agreement will be turned over to PRDOH.

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### **XIII. PENALTIES AND LIQUIDATED DAMAGES**

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#### **A. Penalties**

1. In the event the CONTRACTOR is determined to have engaged in any proscribed conduct or otherwise is in default as to any applicable term, condition, or requirement of this Agreement, at any time following the Effective Date of the Agreement, the CONTRACTOR agrees that PRDOH may impose sanctions against the CONTRACTOR for any default in accordance with **Attachment B** (Scope of Services) and **Attachment D** (Performance Requirements) and this Section. Refer to all required provisions set forth at 2 C.F.R. § 200.326 and 24 C.F.R. § 570.489(g), if applicable, and the Contract and Subrecipient Agreement Manual, Section 2, Subsection 2.4.1(a), as found in the CDBG-MIT website (<https://recuperacion.pr.gov/welcome/index.html>) which is herein included and made an integral part of this Agreement, as it may be updated from time to time.
2. If the CONTRACTOR fails to comply with federal and/or local statutes, regulations or the terms and conditions of the Agreement, PRDOH may take one or more of the following actions:
  - i. Temporarily withhold cash payments pending correction of the deficiency by the CONTRACTOR.
  - ii. Disallow all or part of the cost of the activity or action not in compliance.
  - iii. Initiate suspension or debarment proceedings as authorized under 2 C.F.R. part 180.
  - iv. Withhold further Federal awards for the project or program.
  - v. Take other remedies that may be legally available.

#### **B. Liquidated damages**

The CONTRACTOR shall pay to PRDOH, as liquidated damages, **ONE HUNDRED FIFTY DOLLARS (\$150.00)** for each calendar day that any task deliverable required is late until deemed in compliance subject to a maximum of **ONE THOUSAND FIVE HUNDRED DOLLARS (\$1,500.00)** established in this Agreement between PRDOH and

the CONTRACTOR, in accordance with **Attachment B** (Scope of Services) and **Attachment D** (Performance Requirements). Said sum, in view of the difficulty of accurately ascertaining the loss which PRDOH will suffer by reason of delay in the completion of the **Work hereunder**, is hereby fixed and agreed as the liquidated damages that PRDOH will suffer by reason of such delay. Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of PRDOH's right to indemnification, or the CONTRACTOR's obligation to indemnify the PRDOH pursuant to this Contract, or to any other remedy provided for in this Contract or by Law. Liquidated damages may be assessed at the sole discretion of PRDOH. For the purpose of applying and calculating such liquidated damages, a grace period of **ten (10) business days** shall be observed. The PRDOH may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages due to the PRDOH per the formula above, the CONTRACTOR shall be liable to pay the difference.

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#### XIV. LIABILITY

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In no event, the PRDOH shall be liable for any indirect, incidental, special or consequential damages, or damages for loss of profits, revenue, data or use, incurred by either party or any third party, whether in an action in Agreement or tort, even if the other party or any person has been advised of the possibility of such damages. Third parties operating under this program, with their agency, will have their own general civil and criminal liability imposed by law towards the PRDOH, the CONTRACTOR and any citizen.

The CONTRACTOR shall carry the insurances as are required by law (if applicable), as set forth below. The CONTRACTOR shall furnish PRDOH certificates of insurance.

#### XV. INSURANCE

##### A. Required Coverage

The CONTRACTOR shall keep in force and effect for the period beginning from the execution of the Agreement and ending at the completion of all services to be provided hereunder which are included in the **Attachment B** (Scope of Services) and **Attachment D** (Performance Requirements), insurance policies in compliance with the Insurance Requirements, attached hereto and made an integral part hereof as **Attachment E** (Insurance Requirements). The CONTRACTOR shall meet all other insurance requirements as may be imposed by PRDOH from time to time.

Upon the execution of this Agreement, the CONTRACTOR shall furnish PRDOH with original and two (2) certified copies of the insurance policies described in **Attachment E** (Insurance Requirements) and any other evidence PRDOH may request as to the policies' full force and effect.

Any deductible amount, under any of the policies, will be assumed in whole by the CONTRACTOR for any and all losses, claims, expenses, suits, damages, costs, demands or liabilities, joint and several of whatever kind and nature arising from the Agreement resulting from this solicitation by and between the CONTRACTOR and PRDOH.

PRDOH shall not be held responsible under any circumstances for payments of any nature regarding deductibles of any Commercial Liability Policies for the aforementioned Agreement.

## B. Endorsements

Each insurance policy maintained by the CONTRACTOR must be endorsed as follows:

1. PRDOH, Government of Puerto Rico, HUD and its officers, agents and employees are named as additional insured (except Worker's Compensation) but only with respect to liability arising out of tasks performed for such insured by or on behalf of the named insured.
2. To provide waiver of subrogation coverage for all insurance policies provided or herein in favor of PRDOH and its respective officers, agents and employees.
3. The insurer shall be required to give PRDOH written notice at least **thirty (30) calendar days** in advance of the effectiveness of any cancellation in any such policies.

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The CONTRACTOR shall furnish to PRDOH, prior to commencement of the work, certificates of insurance from insurers with a rating by the A.M. Best Co. of B+ and five (5) or over on all policies, reflecting policies in force, and shall also provide certificates evidencing all renewals of such policies. Insurers shall retain an A.M. Best Co. rating of B+ and five (5) or over on all policies throughout the term of this Agreement and all policy periods required herein. The insurance company must be authorized to do business in Puerto Rico and be in good standing. The CONTRACTOR is solely responsible for reviewing whether the insurance company complies with the requirements included in this section.

## C. Related Requirements

The CONTRACTOR shall furnish original Certificates of Insurance evidencing the required coverage to be in force on the Effective Date of Agreement. In the case of Payment and Performance Bond, Certificate of Authority, Power of Attorney and Power of Attorney License issued by the Commissioner of Insurance shall be furnished. THE REQUIRED DOCUMENTATION MUST BE RECEIVED PRIOR TO THE CONTRATOR COMMENCING WORK. NO CONTRACTOR OR ITS AUTHORIZED REPRESENTATIVES ARE TO BEGIN THEIR RESPONSIBILITIES UNDER THE AGREEMENT PRIOR TO FULL COMPLIANCE WITH THIS REQUIREMENT AND NOTIFICATION FROM PRDOH TO PROCEED.

Renewal Certificates of Insurance or such similar evidence is to be received by the Contract Administration of the Legal Division and/or the Finance area of the CDBG-MIT program prior to expiration of insurance coverage. At PRDOH's option, non-compliance will result in one or more of the following actions: (1) The PRDOH will purchase insurance on behalf of the CONTRACTOR and will charge back all cost to the CONTRACTOR; (2) all payments due the CONTRACTOR will be held until the CONTRACTOR has complied with the Agreement; and/or (3) The CONTRACTOR will be assessed **Five Thousand Dollars (\$5,000.00) for every day of non-compliance.**

The receipt of any certificate does not constitute agreement by PRDOH that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the certificate are in compliance with the requirements of the Agreement. The insurance policies shall provide for **thirty (30) calendar days'** written notice to be given to PRDOH in advance of the effectiveness in the event coverage is substantially changed, cancelled or non-renewed.

The CONTRACTOR shall require all subcontractors or consultants to maintain in force all insurance policies and/or bonds necessary to cover their individual participation in the risk or risks related to the subcontracted work or service to be rendered. The CONTRACTOR may provide the coverage for any or all of its subcontractors and if so, the evidence of insurance submitted shall so stipulate and adhere to the same requirements and conditions as outlined above.

The CONTRACTOR expressly understands and agrees that whenever the CONTRACTOR is covered by other primary, excess, or excess contingent insurance that, any insurance or self-insurance program maintained by PRDOH shall apply in excess of and will not contribute with insurance provided by the CONTRACTOR under this Agreement.

#### **XVI. HOLD HARMLESS**

The CONTRACTOR and its affiliates, its successors and assignees will indemnify the PRDOH from any damages and/or losses arising out of any breach of this Agreement by the CONTRACTOR or against personal injuries or property damage resulting from any act of negligence, omission or intention by the CONTRACTOR and its affiliates in connection with this Agreement.

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#### **XVII. FORCE MAJEURE**

In the event of a fire, flood, earthquake, natural disaster, hurricane, riot, act of governmental authority in its sovereign capacity, pandemic officially declared by the Government of Puerto Rico, or declare by the United States of America, strike, labor dispute or unrest, embargo, war, insurrection or civil unrest, any Force Majeure including inclement weather, herein collectively referred to as Force Majeure during the term of this Agreement, neither the PRDOH nor the CONTRACTOR shall be liable to the other party for nonperformance during the conditions created by such event. The party claiming Force Majeure shall exercise due diligence to prevent, eliminate, or overcome such Force Majeure event where it is possible to do so and shall resume performance at the earliest possible date.

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The CONTRACTOR shall notify the PRDOH in writing as soon as possible, but in any event within **ten (10) business days** of the occurrence of the Force Majeure event and describe in reasonable detail the nature of the Force Majeure event, how the non-performance or delay relates to or arises from the Force Majeure event, its anticipated duration and any action taken to minimize its effect. The CONTRACTOR may be entitled to reasonable adjustments in schedules, among other measures, in the foregoing circumstances. If non-performance continues for more than **thirty (30) business days**, since the occurrence of the Force Majeure without reasonable justification, the PRDOH may terminate this Agreement immediately upon written notification to the CONTRACTOR.

#### **XVIII. CONFLICTS OF INTEREST**

The CONTRACTOR must comply with the ethics requirements set forth herein including, but not limited to federal and local regulations, and warrant that to the best of its knowledge and belief and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of the work under a PRDOH contract and CONTRACTOR'S organizational, financial, contractual or other interest are such that:

- a) Award of the Agreement may result in an unfair competitive advantage; or
- b) The CONTRACTOR's objectivity in performing the contract work may be



impaired.

The CONTRACTOR agrees that if after execution of this Agreement he or she discovers an organizational conflict of interest with respect to this Agreement, it shall make an immediate (within the next **seventy-two consecutive (72) hours**) and full disclosure in writing to the Contracting Officer, which shall include a description of the action, which the CONTRACTOR has taken or intends to take to eliminate or neutralize the conflict. The CONTRACTOR will disclose the details of any existing or future contractual agreement to provide services to third parties participating or for the purpose to participate in disaster recovery programs or projects in Puerto Rico. The PRDOH may, however, terminate the Agreement for the convenience of PRDOH if it would be in its best interest.

In the event the CONTRACTOR was aware of an organizational conflict of interest before the execution of this Agreement and did not disclose the conflict to the Contracting Officer, the PRDOH may terminate the Agreement for default.

The provisions of this clause shall be included in all subcontracts and/or consulting agreements wherein the work to be performed is similar to the services provided by the CONTRACTOR. The CONTRACTOR shall include in such subcontracts and consulting agreements any necessary provision to eliminate or neutralize conflicts of interest.

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#### **XIX. INDEPENDENT CONTRACTOR**

The relationship of the CONTRACTOR to PRDOH shall be that of an independent CONTRACTOR rendering professional services. Neither the CONTRACTOR nor any personnel of the CONTRACTOR shall have any authority to execute contractual agreements or make commitments on behalf of PRDOH. Nothing contained herein shall be deemed to create the relationship of employer/employee, principal/agent, joint venture or partner between the CONTRACTOR and PRDOH. Further, the CONTRACTOR recognizes that in view of its status as an independent CONTRACTOR, neither it nor its employees or subcontractors will be entitled to participate in or receive any fringe benefits normally granted to PRDOH employees under such programs, including, but not limited to, worker's compensation, voluntary disability, travel accident insurance, medical/dental insurance, life insurance, long-term disability, holiday pay, sick pay, salary continuation pay, leaves of absence (paid or unpaid), pension plan and savings plan.

The CONTRACTOR shall have exclusive control over its employees and subcontractors (and the CONTRACTOR's employees and subcontractors are herein, collectively, referred to as the "CONTRACTOR Personnel"), its labor and employee relations and its policies relating to wages, hours, working conditions and other employment conditions. The CONTRACTOR has the exclusive right to hire, transfer, suspend, lay off, recall, promote, discipline, discharge and adjust grievances with its CONTRACTOR Personnel. The CONTRACTOR is solely responsible for all salaries and other compensation of its CONTRACTOR Personnel who provide Services.

The CONTRACTOR is solely responsible for making all deductions and withholdings from its employees' salaries and other compensation and paying all contributions, taxes and assessments, including union payments. The CONTRACTOR shall be responsible for and shall defend, indemnify and hold harmless PRDOH, and its agents, officers, directors, employees, representatives, CONTRACTOR's, successors and assigns against all costs, expenses and liabilities, including without limitation reasonably prudent attorneys' fees relative to the situation, in connection with the CONTRACTOR's employment and/or hiring of any CONTRACTOR Personnel providing any of the Services, including without limitation: (i) payment when due of wages and benefits, (ii) withholding of all payroll

taxes, including but not limited to, unemployment insurance, workers' compensation, FICA and FUTA, (iii) compliance with the Immigration Reform Control Act, and (iv) compliance with any other applicable laws relating to employment of any CONTRACTOR Personnel of, and/or hiring by, CONTRACTOR in connection with the Services.

## XX. NOTICES

All notices required or permitted to be given under the Agreement shall be in writing, and shall be deemed given when delivered by hand, via email, or sent by registered or certified mail, return receipt requested, to the address as follows:

To: PRDOH

William O. Rodríguez Rodríguez, Esq.  
Secretary  
Puerto Rico Department of Housing  
606 Barbosa Ave.  
Juan C. Cordero Dávila Bldg.  
San Juan, PR 00918

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To: CONTRACTOR

Waldemar Edwin Toro Dávila  
President & Partner  
Aireko Energy Solution LLC  
PO Box 2128  
San Juan, PR 00922

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## XXI. THIRD PARTIES

Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action of a third party against either the PRDOH or the CONTRACTOR.

## XXII. SUBCONTRACTS

**A. General:** All subcontracts shall contain the applicable provisions described in **Attachment F** (HUD General Provisions), as well as applicable provisions set forth in 2 C.F.R. § 200.101. PRDOH shall review subcontracts as part of the compliance, monitoring, and oversight process performed by PRDOH or upon request.

**B. Specific Requirements:** All subcontracts must contain provisions specifying:

- i. That the work performed by the subcontractor be in accordance with the applicable terms of this Agreement between PRDOH and CONTRACTOR;
- ii. That nothing contained in such subcontract agreement shall impair the rights of PRDOH;
- iii. That nothing contained herein, or under this Agreement will create any contractual relation between the subcontractor and PRDOH;
- iv. That the subcontractor specifically agrees to be bound by the confidentiality provision regarding Personal Identifiable Information set forth in this Agreement;
- v. That CONTRACTOR will be responsible for ensuring all subcontract work is performed consistent with federal and state regulations and/or policies to be eligible for reimbursement of the approved work; and
- vi. All Federal flow down provisions are included in the subcontract agreement per Federal guidelines.

- C. Monitoring:** CONTRACTOR shall diligently monitor all subcontracted services. If CONTRACTOR discovers any areas of noncompliance, CONTRACTOR shall provide to PRDOH summarized written reports supported with documented evidence of corrective action.
- D. Content:** CONTRACTOR shall cause all the applicable provisions of this Agreement to be included in, and made a part of, any subcontract executed in the performance of this Agreement.
- E. Notification:** Within **three (3) business days** of its execution, the CONTRACTOR shall notify the Contract Administration Area of PRDOH CDBG-MIT Legal Division and provide a copy of all subcontracts related to this Agreement and CDBG-MIT funds, as well as any other subcontracts listed in **Attachment G** (Contractor Certification Requirement). The CONTRACTOR is in charge of obtaining all certifications from the subcontractors listed in Article XXIII of this Agreement that are required for technical, professional, or consulting services, as well as submitting them with the copy of the subcontract and adhering to all other requirements set forth in Circular Letter 1300-16-16 from the Puerto Rico Department of Treasury. Technical, professional, or consulting services that are employed to carry out the terms of this Agreement are referred to as subcontractors for the purposes of this article if they spend at least 25% of their time on it.

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#### **XXIII. CERTIFICATION OF COMPLIANCE WITH LEGAL REQUIREMENTS**

Given that the Agreement involves funds for which HUD is the oversight agency, the CONTRACTOR agrees to carry out its obligations under this Agreement in compliance with all the requirements described in **Attachment F** (HUD General Provisions), **Attachment G** (Contractor Certification Requirement) and following provisions:

- A. Compliance with Act No. 173:** The CONTRACTOR hereby certifies that in signing this Agreement it is in compliance with Act No. 173 of August 12, 1988, as amended, known as the "Board of Examiners of Engineers, Architects, Surveyors, and Landscape Architects of Puerto Rico Act", 20 LPRA §§ 711-711z to exercise the profession of engineering, architecture, surveying or landscaping architecture in Puerto Rico, is registered in the official Register of the Board, and is an active member, and hold a license issued by the College of Engineers and Surveyors of Puerto Rico or the College of Architects and Landscape Architects of Puerto Rico, as applicable.
- B. Compliance with Executive Order No. 24:** Pursuant to Executive Order No.24 of June 18, 1991, the CONTRACTOR certifies and guarantees that at the signing of this Agreement it has filed all the necessary and required income tax returns to the Government of Puerto Rico for the last **five (5) years**. The CONTRACTOR further certifies that it has complied and is current with the payment of any and all income taxes that are, or were due, to the Government of Puerto Rico. The CONTRACTOR expressly agrees that the conditions outlined throughout this Section are essential requirements of this Agreement; thus, should any one of these representations, warrants, and certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for PRDOH to render this Agreement null and void and the CONTRACTOR reimburse to PRDOH all money received under this Agreement. The CONTRACTOR shall hand out, to the satisfaction of the PRDOH and whenever requested by the PRDOH during the term of this Agreement, the necessary documentation to support its compliance of this clause. The CONTRACTOR will be given a specific amount of time by the PRDOH to produce said documents. During the term of this Agreement, the CONTRACTOR agrees to pay and/or to remain current

with any repayment plan agreed to by the CONTRACTOR with the Government of Puerto Rico.

**C. Compliance with Executive Order 52:** Pursuant to Executive Order No. 52 of August 28, 1992, amending Executive Order No. 1991-24, the CONTRACTOR certifies and warrants that at the time of signing this Agreement, it has made all payments required for unemployment benefits, workmen's compensation and social security for chauffeurs, whichever is applicable, or that in lieu thereof, has subscribed a payment plan in connection with any such unpaid items and is in full compliance with the terms thereof. The CONTRACTOR expressly agrees that the conditions outlined throughout this Section are essential requirements of this Agreement; thus, should any one of these representations, warrants, and certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for PRDOH to render this Agreement null and void and the CONTRACTOR reimburse to PRDOH all money received under this Agreement. The CONTRACTOR accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every CONTRACTOR and subcontractor whose service the CONTRACTOR has secured in connection with the services to be rendered under this Agreement and shall forward evidence to PRDOH as to its compliance with this requirement.

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**D. Compliance with Circular Letter No. 1300-16-16 of the Puerto Rico Department of Treasury:** The CONTRACTOR accepts and acknowledges its responsibility of acquiring the certifications required in the Puerto Rico Department of Treasury Circular Letter No. 1300-16-16 issued on January 19, 2016. All certifications must be submitted during their term of validity, in accordance with applicable laws. Certifications expired or issued more than **sixty (60) calendar days** prior to the contract date will not be accepted. The last payment to be made under the contract will only be issued if the 'Debt Certifications' by the Puerto Rico Department of Treasury indicate that the CONTRACTOR has no debt with the Department of Treasury. The CONTRACTOR agrees to cancel any debt that cannot be clarified with the Department of the Treasury through a withholding made by PRDOH from the payments to which it is entitled to receive under the contract.

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**E. Social Security and Income Tax Retentions:** The CONTRACTOR will be responsible for rendering and paying the Federal Social Security and Income Tax Contributions for any amount owed as a result of the income from this Agreement.

**F. Government of Puerto Rico Municipal Tax Collection Center (CRIM, for its Spanish acronym):** The CONTRACTOR certifies and guarantees that at the signing of this Agreement it has no current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center. The CONTRACTOR further certifies to be current with the payment of any and all property taxes that are or were due to the Government of Puerto Rico. The CONTRACTOR shall hand out, to the satisfaction of the PRDOH and whenever requested by the PRDOH during the term of this Agreement, the necessary documentation to support its compliance of this clause. The CONTRACTOR will deliver upon request any documentation requested under this clause as per request of PRDOH. During the Term of this Agreement, the CONTRACTOR agrees to pay and/or to remain current with any repayment plan agreed to by the CONTRACTOR with the Government of Puerto Rico with regards to its property taxes.

**G. Income Tax Withholding:** The PRDOH shall retain the corresponding amount from all payments made to the CONTRACTOR, as required by the Puerto Rico Internal Revenue Code. The PRDOH will advance such withholdings to the Government of

Puerto Rico's Treasury Department (known in Spanish as *Departamento de Hacienda del Gobierno de Puerto Rico*). The PRDOH will adjust such withholdings provided the CONTRACTOR produces satisfactory evidence of partial or total exemption from withholding.

- H. Compliance with Act No. 45 of April 18, 1935, as amended, 11 LPRA § 1, et seq.:** The CONTRACTOR certifies and guarantees that at the signing of this Agreement has valid insurance issued by the State Insurance Fund Corporation (CFSE, for its Spanish Acronym), as established by Act No. 45, *supra*, known as the "Puerto Rico Workers' Accident Compensation Act".
- I. Government of Puerto Rico's Agency for the Collection of Child Support (ASUME, for its Spanish acronym):** The CONTRACTOR certifies and guarantees that at the signing of this Agreement that the CONTRACTOR nor any of its Partners, if applicable, have any debt or outstanding debt collection legal procedures with regards to child support payments that may be registered with the Government of Puerto Rico's Child Support Administration. The CONTRACTOR hereby certifies that it is a limited liability company organized and existing in good standing under the laws of the Government of Puerto Rico. The CONTRACTOR shall present, to the satisfaction of PRDOH, the necessary documentation to substantiate the same. The CONTRACTOR will be given a specific amount of time by PRDOH to deliver said documents.
- J. Compliance with Act No. 168-2000, as amended, 8 LPRA § 711, et seq.:** The CONTRACTOR is in full compliance with Act No. 168-2000, as amended, known as "Act for the Improvement of Elderly Support of Puerto Rico."
- K. Compliance with Act No. 1-2012, as amended, 3 LPRA § 1854, et seq.:** The PRDOH and the CONTRACTOR hereby certify that in signing this Agreement they are in compliance with Act No. 1-2012, as amended, known as the "Puerto Rico Government Ethics Act of 2011", in connection with the possibility of a conflict of interest.
- L. Clause of Governmental Ethics Certification of Absence of Conflict of Interests:** The CONTRACTOR certifies that: (1) No public servant of this executive agency has a pecuniary interest in this contract, purchase or commercial transaction. (2) No public servant of this executive agency has requested me or accepted from me, directly or indirectly, for him (her), for any member of his family unit or for any person, gifts, bonuses, favors, services, donations, loans or anything else of monetary value. (3) No public servant (s) requested or accepted any good of economic value, linked to this transaction, from any person of my entity as payment for performing the duties and responsibilities of their employment. (4) No public servant has requested from me, directly or indirectly, for him (her), for any member of her family unit, or for any other person, business or entity, some of economic value, including gifts, loans, promises, favors or services in exchange for the performance of said public servant is influenced in my favor or of my entity. (5) I have no kinship relationship, within the fourth degree of consanguinity and second by affinity, with any public servant who has the power to influence and participate in the institutional decisions of this executive agency.
- M. Ethics:** CONTRACTOR also acknowledges receipt and agrees to obey the Anticorruption Code for the New Puerto Rico, Act No. 2-2018, as amended, 3 LPRA § 1881, et seq., known in Spanish as "Código Anticorrupción para el Nuevo Puerto Rico".

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**N. Non-Conviction:** The CONTRACTOR certifies that it has not been convicted nor accused of a felony or misdemeanor against the government, public faith and function, or that involves public property or funds, either federal or local in origin. Furthermore, CONTRACTOR also certifies that:

1. It has not been convicted, nor has pleaded guilty at a state or federal bar, in any jurisdiction of the United States of America, of crimes consisting of fraud, embezzlement or misappropriation of public funds, as stated in Act No. 2 of January 2, 2018, as amended, known as the Anti-Corruption Code for the New Puerto Rico, which prohibits the award of Offers or government contracts to those convicted of fraud, misappropriation of public fund.
2. It understands and accepts that any guilty plea or conviction for any of the crimes specified in Article 3 of said Act, will also result in the immediate cancellation of any contracts in force at the time of conviction, between the undersigned and whichever Government Agencies, Instrumentalities, Public Corporations, Municipalities and the Legislative or Judicial Branches.
3. It declares under oath the above mentioned in conformity with what is established as in Act No. 2 of January 2, 2018, as amended, known as the "Anti-Corruption Code for the New Puerto Rico", which prohibits awarding Offers for government contracts, to those convicted of fraud, embezzlement or misappropriation of public funds.
4. The CONTRACTOR represents and guarantees that none of its employees, officials or agents have been convicted of a felony or misdemeanor as described in this sub-section. Moreover, the CONTRACTOR agrees to notify PRDOH should any employee, official, or agent is convicted of a felony or misdemeanor as described in this sub-section after the date of this Agreement. Said notice shall be made within **ten (10) business days** from the time of the conviction.

**O. Other payments or compensation:** The CONTRACTOR certifies that it does not receive payment or compensation for regular services rendered as an official or public employee to another government entity, agency, public corporation or municipality, and knows the ethical standards of his profession and assumes responsibility for his actions.

**P. Consequences of Non-Compliance:** The CONTRACTOR expressly agrees that the conditions outlined throughout this Section are essential requirements of this Agreement; thus, should any one of these representations, warrants, and certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for PRDOH to render this Agreement null and void and the CONTRACTOR reimburse to PRDOH all money received under this Agreement.

**Q. Non-Conflict of Interest Certification:** The CONTRACTOR shall comply with **Attachment H** (Non-Conflict of Interest Certification), attached herein and made an integral part of this Agreement, which outlines several situations that may reasonably be considered as conflicts of interest. The aforementioned certification aids PRDOH, in its role as grantee, to identify, evaluate, disclose, and manage apparent potential, or actual conflicts of interest related to CDBG-DR and CDBG-MIT-funded projects, activities, and/or operations.

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**XXIV. ACT NO. 18 OF OCTOBER 30, 1975, as amended, 2 L.P.R.A. §§ 97-98**

The Parties to this Agreement agree that its effective date will be subject to the due registration and remittance to the Office of the Comptroller of Puerto Rico. No rendering or consideration subject matter of this Agreement will be required before its registration at the Office of the Comptroller of Puerto Rico pursuant to Act No. 18 of October 30, 1975, as amended. The CONTRACTOR will be responsible for ensuring that this Agreement has been registered before the rendering of services by requesting a copy of the registered Agreement with its proper number and date of registry. No services under this Agreement will continue to be delivered after its termination date unless at the expiration date, an amendment signed by both Parties and duly registered exists. No services performed in violation of this provision will be paid. The party violating this clause will be doing so without any legal authority, this action will be deemed as *ultra vires*.

**XXV. MEMORANDUM NO. 2021-003; CIRCULAR LETTER 001-2021 OF THE OFFICE OF THE CHIEF OF STAFF OF THE GOVERNOR (SECRETARÍA DE LA GOBERNACIÓN) & THE OFFICE OF MANAGEMENT AND BUDGET (OFICINA DE GERENCIA Y PRESUPUESTO)**

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**A. Interagency Services Clause:** Both contracting Parties acknowledge and agree that services retained may be provided to any entity of the Executive Branch with which the contracting entity makes an interagency agreement or by direct provision of the Office of the Chief of Staff of the Governor (*Secretaría de la Gobernación*). These services will be performed under the same terms and conditions in terms of hours of work and compensation set forth in this Agreement. For purposes of this clause, the term "Executive Branch entity" includes all agencies of the Government of Puerto Rico, as well as public instrumentalities and public corporations and the Office of the Governor.

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**B. Termination Clause:** The Chief of Staff (*Secretaría de la Gobernación*) of the Governor shall have the power to terminate this Agreement at any time.

**C. Contract Review Policy of the Financial Supervision and Administration Board for Puerto Rico:** The Parties acknowledge that the CONTRACTOR has submitted the certification entitled "Contractor Certification Requirement" required in accordance with the Contract Review Policy of the Financial Oversight and Management Board (**FOMB**) for Puerto Rico, effective as of November 6, 2017, as amended on October 30, 2020, signed by the Contractor's Executive Director (or another official with an equivalent position or authority to issue such certifications). A signed copy of the "Contractor's Certification Requirement" is included as **Attachment G** (Contractor Certification Requirement) to this contract.

**XXVI. MEMORANDUM NO. 2021-029; CIRCULAR LETTER NO. 013-2021 OF THE OFFICE OF THE CHIEF OF STAFF OF THE GOVERNOR (SECRETARÍA DE LA GOBERNACIÓN) & THE OFFICE OF MANAGEMENT AND BUDGET (OFICINA DE GERENCIA Y PRESUPUESTO):**

**A.** The PRDOH certifies that the CONTRACTOR was selected as the provider of the services described in this Agreement, pursuant to Executive Order No. 2021-029.

**B.** The Parties certify that they acknowledge the provisions stated in Executive Order No. 2021-029 and CC 013-2021. Any failure to comply with the requirements set forth in Executive Order No. 2021-029 and CC 013-2021 will result in the termination of this Agreement.

- C. The CONTRACTOR certifies that it has informed PRDOH of any current contractual relationship with any government entities of the Government of Puerto Rico. Accordingly, the CONTRACTOR certifies, as of the date hereof, that it is in a contractual relationship with the following entities of the Government of Puerto Rico: Municipality of Bayamón, Puerto Rico Aqueduct and Sewer Authority (AAA), Administration of General Services (ASG), and the Cardiovascular Centre of Puerto Rico and the Caribbean. The CONTRACTOR also certifies that said entities are all the entities of the Government of Puerto Rico with which they maintain a contractual relationship. In addition, the CONTRACTOR recognizes and accepts that omitting any information regarding any current contractual relationship with any governmental entity could result in the termination of this Agreement if so, required by PRDOH.
- D. The CONTRACTOR certifies that it has informed PRDOH whether or not the entity is a public corporation whose shares are exchanged in a stock exchange properly regulated. In the event that the CONTRACTOR certifies that it is not a public corporation that exchanges shares in a stock change, the CONTRACTOR certifies it has completed the applicable certification as stated in CC-013-2021.

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**XXVII. COMPLIANCE WITH THE FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO (FOMB) POLICY: REVIEW OF CONTRACTS, AS MODIFIED ON APRIL 30, 2021, REGARDING PROFESSIONAL SERVICES**

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The FOMB Policy requires that all agreements that contemplate recurring professional services that may be performed by appropriately trained government staff include a provision of compliance with the adequate transfer of skills and technical knowledge to the pertinent public sector personnel. This requirement shall not apply to contracts that contemplate non-recurring professional services or specialized professional services that may not be performed by existing staff at the applicable governmental entity, including as a result of independence requirements.

Accordingly, given that the agreements under CDBG-MIT are non-recurring professional services or specialized professional services, the PRDOH certifies that the transfer of skills and technical knowledge required by the Certified Fiscal Plan is inapplicable given the non-recurring or specialized nature of the contracted services.

As mentioned before, HUD allocated funds for disaster recovery assistance to the Government of Puerto Rico under the CDBG-MIT Program. These funds are intended to provide financial assistance to address unmet needs that arise and that are not covered by other sources of financial aid. In addition, with these allocations of funding under the Grant Agreement, the PRDOH will conduct a comprehensive recovery to benefit the residents of Puerto Rico.

**XXVIII. COMPLIANCE WITH THE FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO (FOMB) POLICY, REVIEW OF CONTRACTS**

As part of the PRDOH contract process, and pursuant to Section 204(b)(2) of the "Puerto Rico Oversight, Management, and Economic Stability Act," 48 U.S.C. §2101, *et seq.*, also known as "PROMESA", the Financial Oversight and Management Board for Puerto Rico (FOMB) require approval of certain contracts and amendments to assure that they "promote market competition" and "are not inconsistent with the approved fiscal plan." For the approval process, the FOMB requests, among other information, the Contractor Certification Requirement for its evaluation.



In compliance with the above, the CONTRACTOR represents and warrants that the information included in the Contractor Certification Requirement is complete, accurate and correct, and that any misrepresentation, inaccuracy or falseness in such Certification will render the contract null and void and the CONTRACTOR will have the obligation to reimburse immediately to the Commonwealth any amounts, payments or benefits received from the Commonwealth under the proposed Amendment and original Agreement.

#### **XXIX. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, & EXECUTIVE ORDERS**

The CONTRACTOR acknowledges that HUD financial assistance will be used to fund the Agreement only. Also, the CONTRACTOR shall comply with all applicable Federal, state and local laws, rules, regulations, and policies relating to CDBG-MIT and CDBG Program services. This includes without limitation, applicable Federal Registers; 2 C.F.R. part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Housing and Community Development Act of 1974; 24 C.F.R. part 570 Community Development Block Grant; applicable waivers; Fair Housing Act, 24 C.F.R. Part 35, 24 C.F.R. Part 58, 24 C.F.R. Part 135; National Historic Preservation Act, and any other applicable state laws or regulations, including the requirements related to nondiscrimination, labor standards, and the environment; and Action Plan amendments and HUD's guidance on the funds. Also, the CONTRACTOR shall comply, without limitation, with those set forth in **Attachment F** (HUD General Provisions) and in compliance with all the requirements described in **Attachment G** (Contractor Certification Requirement).

#### **XXX. CDBG-MIT POLICIES AND PROCEDURES**

In addition to what is established in this Agreement, the CONTRACTOR shall comply with all CDBG-MIT program specific and general policies and procedures, including, but not limited to, the Contract and Subrecipient Agreement Manual, OS&H Guideline, MWBE Policy, Procurement Manual for the CDBG-MIT program, URA & ADP Guidelines, Cross Cutting Guidelines, AFWAM Policy, Section 3 Policy, Personally Identifiable Information, Confidentiality, and Nondisclosure Policy and Conflict of Interest and Standards of Conduct Policy, as found in the CDBG-MIT website (<https://recuperacion.pr.gov/welcome/index.html>), which are herein included and made an integral part of this Agreement, as they may be updated from time to time, and reporting requirements as established by the PRDOH.

#### **XXXI. SECTION 3 CLAUSE**

**A.** The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

**B.** The Parties to this contract agree to comply with HUD's regulations in 24 C.F.R. part 75, which implement Section 3. As evidenced by their execution of this contract, the Parties to this contract certify that they are under no contractual or other impediments that would prevent them from complying with the part 75 regulations.

**C.** The CONTRACTOR agrees to send to each labor organization or representative of workers with which the CONTRACTOR has a collective bargaining agreement or other

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understanding, if any, a notice advising the labor organization or workers' representative of the CONTRACTOR'S commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth the minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

**D.** The CONTRACTOR agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 75 and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 75. The contractor will not subcontract with any subcontractor where the CONTRACTOR has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 75.

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**E.** The CONTRACTOR acknowledges that subrecipients, contractors, and subcontractors are required to meet the employment, training, and contraction requirements of 24 CFR 75.19, regardless of whether Section 3 language is included in recipient or subrecipient agreements, program regulatory agreements, or contracts.

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**F.** The CONTRACTOR will certify that any vacant employment positions, including training positions, that are filled (1) after the CONTRACTOR is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 C.F.R. part 75 require employment opportunities to be directed, were not filled to circumvent the CONTRACTOR'S obligations under 24 C.F.R. part 75.

**G.** Noncompliance with HUD's regulations in 24 C.F.R. part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD-assisted contracts.

**H.** With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (46 U.S.C. § 5307) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

**I.** The CONTRACTOR agrees to submit, and shall require its subcontractors to submit to them, quarterly reports to the PRDOH detailing the total number of labor hours worked on the Section 3 Project, the total number of labor hours worked by Section 3 Workers, and the total number of hours worked by Targeted Section 3 Workers, and any affirmative efforts made during the quarter to direct hiring efforts to low- and very low-income persons, particularly persons who are Section 3 Workers and Targeted Section 3 Workers.

#### **XXXII. BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. § 1352**

The CONTRACTOR certifies, to the best of his or her knowledge, that:

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- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
  - B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Forms-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
  - C. The CONTRACTOR shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. §1352 (as amended by the Lobbying Disclosure Act of 1995). The CONTRACTOR acknowledges that any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. The CONTRACTOR certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONTRACTOR understands and agrees that the provisions of 31 U.S.C. §3801 et seq., apply to this certification and disclosure, if any.

### **XXXIII. EQUAL OPPORTUNITY**

- A. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- C. When applicable, the CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor

union or workers' representatives of the CONTRACTOR's commitments under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

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- D. The CONTRACTOR will comply with all provisions of Exec. Order No. 11246 of September 24, 1965, as amended by Exec. Order No. 11375 of October 13, 1967, and as supplemented by the rules, regulations, and relevant orders of the United States Secretary of Labor.
  - E. The CONTRACTOR will furnish all information and reports required by Exec. Order No. 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
  - F. In the event of the CONTRACTOR's noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Exec. Order No. 11246 of September 24, 1965, as amended, and such other sanctions as may be imposed and remedies invoked as provided in Exec. Order No. 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
  - G. The CONTRACTOR will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (F) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Exec. Order No. 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

#### XXXIV. SOLID WASTE DISPOSAL ACT

1) In the performance of this contract, the CONTRACTOR shall make maximum use of products containing recovered materials that are Environmental Protection Agency (EPA)- designated items unless the product cannot be acquired:

- a. Competitively within a timeframe providing for compliance with the contract performance schedule;
- b. Meeting contract performance requirements; or
- c. At a reasonable price.

2) Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines website, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

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3) CONTRACTOR must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include:

- a. procuring only items designated in guidelines of the EPA at 40 C.F.R. part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds ten thousand dollars (\$10,000) or the value of the quantity acquired during the preceding fiscal year exceeded ten thousand dollars (\$10,000);
- b. procuring solid waste management services in a manner that maximizes energy and resource recovery; and
- c. establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

#### **XXXV. DRUG FREE WORKPLACE**

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The CONTRACTOR should establish procedures and policies to promote a Drug-Free workplace. Further, the CONTRACTOR should notify all employees of its policy for maintaining a Drug-Free workplace, and the penalties that may be imposed for drug abuse violations occurring in the workplace. Further, the CONTRACTOR shall notify the PRDOH if any of its employees are convicted of a criminal drug offense in the workplace no later than **ten (10) calendar days** after such conviction.

#### **XXXVI. SUSPENSION AND DEBARMENT**

- A. This Agreement is a covered transaction for purposes of 2 C.F.R. part 180 and 2 C.F.R. part 2424. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. §180.905) are excluded (defined at 2 C.F.R. §180.940) or disqualified (defined at 2 C.F.R. §180.935).
- B. The CONTRACTOR must comply with 2 C.F.R. part 180, subpart C, and 2 C.F.R. part 2424, and must include a requirement to comply with these regulations in any lower-tier covered transaction it enters into.
- C. This certification is a material representation of fact relied upon by PRDOH. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. part 180, subpart C and 2 C.F.R. part 2424, in addition to remedies available to PRDOH, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. The CONTRACTOR agrees to comply with the requirements of 2 C.F.R. part 180, subpart C and 2 C.F.R. part 2424, while this Agreement is valid. The CONTRACTOR further agrees to include a provision requiring such compliance in its lower-tier covered transactions.

#### **XXXVII. SYSTEM FOR AWARD MANAGEMENT (SAM) REGISTRATION**

The CONTRACTOR certifies that it is cleared and eligible for award of a contract and is not suspended, debarred, or on a HUD-imposed limited denial of participation. Subsequently, the CONTRACTOR must be registered in the System for Award Management (**SAM**) and shall maintain its registration active during contract performance and through final payment. The CONTRACTOR is responsible during performance and through final payment for the accuracy and completeness of the data

within SAM. Failure to maintain registration in SAM may impact obligations and payments under this Agreement, including but not limited to, termination of this Agreement.

#### **XXXVIII. NO OBLIGATION BY THE FEDERAL GOVERNMENT**

The Federal Government is not a party to this Agreement and is not subject to any obligations or liabilities to the non-Federal entity, CONTRACTOR, or any other party pertaining to any matter resulting from the Agreement.

#### **XXXIX. PROGRAM FRAUD & FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS**

The CONTRACTOR acknowledges that 31 U.S.C. Chapter 38 (Administrative Remedies for False Claims and Statements) applies to the CONTRACTOR's actions pertaining to this Agreement.

#### **XL. BANKRUPTCY**

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In the event that CONTRACTOR files for bankruptcy protection, the Government of Puerto Rico and PRDOH may declare, without notice, this Agreement null and void, or terminate this Agreement without notice.

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#### **XLI. ENTIRE AGREEMENT**

This Agreement and all its attachments represent the entire and integrated agreement between PRDOH and the CONTRACTOR and supersede all prior negotiations, representations, agreements, and/or understandings of any kind. This Agreement may be amended only by a written document signed by both PRDOH and the CONTRACTOR.

#### **XLII. MODIFICATION OF AGREEMENT**

Any modification of this Agreement or additional obligation assumed by either party in connection with this Agreement shall be binding only if written and signed by both Parties, and its authorized representatives. Those amendments shall make specific reference to this Agreement, comply with programmatic policies, procedures, and guidelines. Such amendments shall not invalidate this Agreement, nor relieve or release the Parties from their obligations under this Agreement.

However, PRDOH reserves the right to notify in writing to CONTRACTOR any applicable policies, procedures, regulations, requirements, guidelines, or change in law, whether existing or to be established, as well as changes and/or amendments thereof, and the notified policies, procedures, regulations, requirements, guidelines and laws shall be deemed incorporated by reference to this Agreement without the need of executing a separate written and signed amendment. Nevertheless, is complete obligation of the CONTRACTOR to keep itself updated with the programmatic policies, procedures, guidelines, and applicable and/or governing law.

#### **XLIII. BINDING EFFECT**

This Agreement shall be binding upon and shall inure to the benefit of PRDOH and the CONTRACTOR, their successors and assigns.

The CONTRACTOR shall not assign this Agreement, in whole or in part, without the prior written consent of PRDOH, and any attempted assignment not in accordance herewith shall be null and void and of no force or effect.

#### **XLIV. ASSIGNMENT OF RIGHTS**

The rights of each party hereunder are personal to that party and may not be assigned or otherwise transferred to any other person, contractor, corporation, or other entity without the prior, express, and written consent of the other party.

#### **XLV. NON-WAIVER**

The failure or delay of either party to insist upon the performance of and/or the compliance with any of the terms and conditions of this Agreement shall not be construed as a waiver of such terms and conditions or the right to enforce compliance with such terms and conditions.

The Parties expressly agree that no amendment of the Agreement or Change of Order shall be understood as a contractual novation of the Agreement, unless both Parties agree to the contrary in writing. The foregoing provision shall be equally applicable in such other cases where an extension of the Agreement is executed.

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#### **XLVI. ORDER OF PRECEDENCE**

In the event of an inconsistency in this Agreement or if a conflict occurs between this Agreement and any Attachment, Appendix, Exhibit, or Schedule, unless otherwise specifically stated in those documents, the order of precedence shall be: Federal laws, regulations, and policies applicable to this Agreement, this Contract and **Attachment F** (HUD General Provisions), **Attachment B** (Scope of Services), **Attachment D** (Performance Requirements), **Attachment C** (Compensation Schedule), and lastly, **Attachment A** (Proposal).

#### **XLVII. GOVERNING LAW JURISDICTION**

This Agreement shall be governed by, interpreted, and enforced in accordance with the laws of the Government of Puerto Rico and any applicable federal laws and regulations. The Parties further agree to assert any claims or causes of action that may arise out of this Agreement in the Puerto Rico Court of First Instance, Superior Court of San Juan, Puerto Rico.

#### **XLVIII. TIME OF ESSENCE CLAUSE**

In this Agreement, unless otherwise specified, the calculation of days shall be conducted inclusively, with the first day being included and the last day being excluded. When referring to a period of 'X days', it shall be understood as a consecutive calendar day, unless is established otherwise.

If the last day of a period falls on weekend or legal holiday recognized in the jurisdiction of the Government of Puerto Rico, the period shall be extended to include the next business day. For purposes of computing deadlines or timeframes, a day shall be considered to commence at 12:00 a.m. and conclude at 11:59 p.m. local time at the location specified to execute the Agreement. In case of any ambiguity or dispute regarding the computation of days, the determination shall be made in accordance with the applicable laws of the jurisdiction of the Government of Puerto Rico.

Time shall be of the essence in the performance of all obligations under this Agreement. Any deadlines, time frames, or dates specified herein must be strictly adhere to. Failure to meet any such deadlines shall be considered a material beach of this Agreement, entitling PRDOH and/or the Government of Puerto Rico to pursue all available remedies under law or equity.

## **XLIX. CONSOLIDATIONS, MERGERS, CHANGE OF NAME, OR DISSOLUTIONS**

### **A. Consolidation or Merger**

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH moves for a consolidation or merger with another entity (private or public), by its discretion or otherwise, written notice of such decision or event shall be delivered to the PRDOH Legal Division at [contractscdbgdr@vivienda.pr.gov](mailto:contractscdbgdr@vivienda.pr.gov) at **least fifteen (15) business days prior to the effective date** of the consolidation or merger. The notice shall include, but not limited to, a description of: the expected effective date of the consolidation or merger; name of each of the constituent entities moving to consolidate or merge into the single resulting or surviving entity; the proposed name of the resulting entity (in case of a consolidation) or the name of the surviving entity (in case of a merger) if necessary; reference to the projected capacity of the resulting or surviving entity to comply with the terms, conditions, obligations, tasks, services, and performance goals or requirements included in the Agreement as well as its Exhibits or Attachments; and a brief summary of the proposed plan to achieve the transition of duties (Scope of Work or Scope of Services), tasks, and performance goals or requirements to the resulting or surviving entity.

Upon the consolidation or the merger becoming effective, and supporting evidence of such event is notified to PRDOH, execution of an Amendment to the Agreement may follow. The Amendment would include, but not limited to, modifications to the clauses that refer to the identity, personal circumstances, address, and any other information related to the signing party deemed relevant by PRDOH for the execution of the Amendment. Additionally, the CONTRACTOR must deliver documents requested to satisfy any reasonable requirement made by PRDOH. These requests aim to ensure the compliance with local and federal regulations, as applicable. **No amendment to the Agreement will be necessary if the Subrecipient, Contractor, or Subcontractor becomes the surviving entity following a merger.**

Failure to comply with any of the before mentioned conditions, may result in the activation of the termination clauses provided in the Agreement.

### **B. Change of Name**

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH initiates a change of name process, written notice of such decision or event shall be delivered to the PRDOH Legal Division at [contractscdbgdr@vivienda.pr.gov](mailto:contractscdbgdr@vivienda.pr.gov) at **least fifteen (15) business days prior to the effective date of such event**. The notice shall include, but not limited to, a description of: the expected effective date of the change of name; the proposed name; inform of any change of address; and reference of any change in the capacity of the entity to comply with the terms, conditions, obligations, tasks, services, and performance goals or requirements included in the Agreement, as well as its Exhibits or Attachments.

Upon the change of name becoming effective, and supporting evidence of such event is notified to PRDOH, execution of an Amendment to the Agreement may follow. The Amendment would include, but not limited to, modifications to the clauses that refer to the identity, personal circumstances, address, and any other information related to the signing party deemed relevant by PRDOH for the execution of the Amendment.

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Additionally, the CONTRACTOR must deliver documents requested to satisfy any reasonable requirement made by PRDOH. These requests aim to ensure the compliance with local and federal regulations, as applicable.

Failure to comply with any of the before-mentioned conditions, may result in the activation of the termination clauses provided in the Agreement.

### C. Dissolution

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH moves for dissolution of the entity, written notice of such decision or event shall be delivered to the PRDOH Legal Division at [contractscdbgdpr@vivienda.pr.gov](mailto:contractscdbgdpr@vivienda.pr.gov) at **least fifteen (15) business days prior to the effective date of such event**. The notice shall include, but not limited to, a description of the expected effective date of the dissolution; and contact information of one or more of its directors, officials or agents. Upon dissolution, becoming effective, and supporting evidence of such event is notified to PRDOH, termination of the Agreement will follow. Consequently, the signing party acknowledges and agrees to provide to the PRDOH, after termination of the Agreement, the assistance reasonably requested to facilitate the orderly transfer of responsibility for performance of the tasks or services to the PRDOH or a third party designated by the PRDOH. Moreover, all finished or unfinished records (files, data, work product) connected with this Agreement will be turned over to PRDOH following the Agreement termination.

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### L. HEADINGS

The titles to the paragraphs of this Agreement are solely for reference purposes and the convenience of the Parties and shall not be used to explain, modify, simplify, or aid in the interpretation of the provisions of this Agreement.

### II. FEDERAL FUNDING

The fulfillment of this Agreement is based on those funds being made available to the PRDOH as the lead administrative agency for Recovery. All expenditures under this Agreement must be made in accordance with this Agreement, the policies and procedures promulgated under the CDBG-MIT Program, and any other applicable laws. Further, CONTRACTOR acknowledges that all funds are subject to recapture and repayment for non-compliance.

### LII. RECAPTURE OF FUNDS

PRDOH may recapture payments it makes to CONTRACTOR that (i) exceed the maximum allowable rates; (ii) are not allowed under applicable laws, rules, or regulations; or (iii) are otherwise inconsistent with this Agreement, including any unapproved expenditures. CONTRACTOR must refund such recaptured payments within **thirty (30) business days** after the PRDOH issues notice of recapture to CONTRACTOR.

### LIII. OVERPAYMENT

CONTRACTOR shall be liable to the PRDOH for any costs disallowed pursuant to financial and/or compliance audit(s) of funds received under this Agreement. CONTRACTOR shall reimburse such disallowed costs from funds other than those CONTRACTOR received under this Agreement.

**LIV. SEVERABILITY**

If any provision of this Agreement shall operate or would prospectively operate to invalidate the Agreement in whole or in part, then such provision only shall be deemed severed and the remainder of the Agreement shall remain operative and in full effect.

**LV. COUNTERPARTS**

This Agreement may be executed in any number of counterparts, each of whom shall be deemed to be an original, however, all of which together shall constitute one and the same instrument. If the Agreement is not executed by the PRDOH within **thirty (30) calendar days** of execution by the other party, this Agreement shall be null and void.

**LVI. SURVIVAL OF TERMS AND CONDITIONS**

The terms and conditions of this Agreement related to the following subjects shall survive the termination or expiration of this Agreement: interpretive provisions; consideration; warranties; general affirmations, federal assurances, federal and state certifications; CDBG-MIT and state funding, recapture of CDBG-MIT and/or state funds, overpayment of CDBG-MIT and/or state funds; ownership and intellectual property, copyright; records retention methods and time requirements; inspection, monitoring and audit; confidentiality; public records; indemnification and liability; infringement of intellectual property rights; independent contractor relationship; compliance with laws; notices; choice of law and venue; severability; dispute resolution; consolidations, merger, change of name, and dissolution. Terms and conditions that, explicitly or by their nature, evidence the Parties' intent that they should survive the termination or expiration of this Agreement shall so survive.

**IN WITNESS THEREOF**, the Parties hereto execute this Agreement in the place and on the date first above written.

**PUERTO RICO DEPARTMENT OF  
HOUSING**

**AIREKO ENERGY SOLUTION LLC**

William O. Rodríguez Rodríguez  
William O. Rodríguez Rodríguez (Sep 27, 2024 17:09 EDT)  
William O. Rodríguez Rodríguez, Esq.  
Secretary

Yvonne Font  
Yvonne Font (Sep 25, 2024 12:13 EDT)  
Waldemar Edwin Toro Dávila  
President & Partner

# Attachment A

## Proposed Plan of Action/Work Approach

### **Pre-Installation Assessment: (Photovoltaic System/ PV System)**

Aireko Energy Solution (AES/ Aireko) will perform a site inspection to evaluate and determine site's eligibility, confirming if the property comply with the request minimum for the installation of a Photovoltaic System thru the Department of Housing of Puerto Rico (PRDOH). The visit will focus on evaluating corresponding variables to achieves the installation like:

- Debris and/or any object to obstacle works,
- General conditions of the roof (filtrations, equipment, cracks, vents, skylights, etc.) and its construction material,
- Consider if available a staging area.

During the evaluation visit an experienced inspector will collect information to perform a shading analysis with a solar assessment tool and by taking photos of the area of interest to complete an exhaustive report to evaluate the entrance of sunlight to qualify the dwelling with a 75% or more of adjusted annual shading impact.

Aireko will formalize an electrical evaluation considering the dwelling's meter, main breaker, Main Distribution Panel (MDP), subpanel and if available, any additional electrical installation including its status and location. *Identification of the circuit breakers at MDP and subpanels, if available, will be a particularly important task during this evaluation to consider the critical loads to be fed by the new PV System to install.* We will consider if any household member uses a medical device to consider it in the critical load's evaluation.

As part of the initial evaluation, the inspector will take photos and measurements to determine the best option for the installation location for all components of the PV System to comply with the manufacturer's specifications, design and to comply with NEC .

All these tasks will be performed by an experienced group of installation personnel of Aireko Energy Solution (AES) and professional engineers with at least 20 years of experience in electrical works, specifically in renewable energy and CEWRI Program.

Once completed the evaluation, Aireko will present a formal report to be revised and approved by the Program Manager (PM) to proceed with the next assessment, present a design.

Each site will be identified with a case number and considered as a unique and independent case.

### **Design Service: (PV System)**

The PV System design will be certified by a licensed professional structural engineer and a licensed professional electrical engineer considering the following requirements:

- Roof area and construction material identified at the Pre-Installation Assessment's visit,
- PV System capacity,
- Local codes of construction, residential and more to performs the installation,
  - Wind factor, perforations, system weight, roof access, ect.

### **Award Visit: (PV System)**

Once approved the PV System design by the PM, a capable representative of Aireko with a representative of PRDOH will visit the applicant for a formal and comprehensive orientation of the PV System to install. During the visit, our assignment would be to inform the beneficiary of the equipment to install and functionality, photos for reference, localization, warranties, changes related to LUMA Energy and others. Once the applicant is well oriented, would proceed to the contract agreement.

### **Permits: (PV System)**

Aireko is responsible for complying with all requirements of documentation, permits and licenses efficiently for services of a complete installation of the PV System. It extends the respond for fees and additional cost for an interconnection certificate as installed the system.

### **Systems Installation Services: (PV System)**

The installation of all the components of the PV System, including the commissioning and certification of interconnection are the responsibility of AES in observing with permits and approval of ACT 17-2019. The installation will be as approved design and in compliance with the requirements of manufacturer. Considering the following details:

- Avoid the installation of the inverter and battery directly oriented to the South,
- Consider torque as specified by manufacturer and designer,
- Installation as NEC, and NREL,
- A safety installation,
- All costs of installation are the responsibility of Aireko Energy Solution.

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All materials, tools, equipment, labor is the responsibility of AES in compliance with CEWRI-CI Program.

### **Pre-Inspection/Commissioning: (PV System)**

Once the PV System is installed, Aireko proceeds with an internal inspection with our professional team to validate the correct installation and the functionality of the PV System as design to continue with the commissioning of the equipment. After the commissioning, AES will present a Pre-Inspection Package with the following reports:

- Commissioning Report
- Design Drawings and Specifications
- Submittals Certifications
- Credentials of the Design Team
- Warranties
- Any additional document for reference

### Inspection: (PV System)

An electrical expert from our team with an inspector of PRDOH will visit the dwelling to physically inspect the installation and documentation presented previously to ensure compliance with the quality standards of the Program.

If the inspector reports any observation, Aireko is responsible to attend the correction or repair as soon as possible in a period of ten (10) calendar days. If AES does not comply with the stipulated Program's timeframe, will present a formal written reason for the reported observation during the inspection visit.

### Additional Services (PV System):

As an experienced company working as installer for CEWRI Program, the existing dwellings categorized as repair/relocation needed previous work to comply with the minimum requirements for the installation; most of these unforeseen conditions can be identified during the evaluation visit/ Pre-Installation Assessment and present them as part of the design.

If and only if Additional Services are required, Aireko will present a Working Plan to justify the necessity to add these services through a list of deliverables with their cost, action plan; including schedule and staff involved.

### Pre-Installation Assessment: (Water Storage System/WSS)

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<sub>WARR</sub> Aireko Energy Solution (AES/ Aireko) will perform a site inspection to evaluate and determine site's eligibility, confirming if the property comply with the request minimum for the installation of a Water Storage System (WSS) through the Department of Housing of Puerto Rico (PRDOH). The visit will focus on evaluating corresponding variables to achieves the installation like:

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- Debris and/or any object to obstacle works,
  - General conditions of the roof (filtrations, equipment, cracks, vents, skylights, etc.) and its construction material,
  - Consider availability of alternative location for WSS installation,
  - Consider if a staging area is available.

During the evaluation visit an experienced inspector will collect information to complete an exhaustive report to evaluate location alternatives for the WSS installation, also contemplating SHPO cases experience from CEWRI Program.

Aireko will formalize an electrical evaluation considering the dwelling's meter, main breaker, Main Distribution Panel (MDP), subpanel, if available and any additional electrical installation including its status and location. Identifying what fed each circuit breaker of the existing MDP and subpanels if available, and spare circuit breakers to confirm electrical availability for the installation of a WSS. If applies, consider the status of an existing water cistern tank.

As part of the initial evaluation, the inspector will take photos and measurements to determine the best option for the installation's location for all components of the WSS in a safety manner.

All these tasks will be performed by an experienced group of installation personnel of Aireko Energy Solution (AES) and professional engineers with at least 10 years of experience in electrical and mechanical works and experience in CEWRI Program.

Once completed the evaluation, Aireko will present a formal report to be revised and approved by the Program Manager (PM) to proceed with the next assessment, present a design.

Each site will be identified with a case number and considered as a unique and independent case.

#### **Design Service: (WSS)**

The WSS design will be certified by a licensed professional structural engineer and a licensed professional mechanical engineer considering the following requirements:

- Roof area and construction material identified at the Pre-Installation Assessment's visit and/or ground concrete pad for installation,
- WSS System capacity,
- Local codes of construction, residential and more to performs the installation,
  - Wind factor, perforations, system weight, roof access, ect.

#### **Award Visit: (WSS)**

Once approved the Water Storage System design by the PM, a capable representative of Aireko with a representative of PRDOH will visit the applicant for a formal and comprehensive orientation of the WSS to install. During the visit, our assignment would be to inform the beneficiary of the equipment to install and functionality, photos for reference, localization, warranties and others. Once the applicant is well oriented, would proceed to the contract agreement.

#### **Permits: (WSS)**

WERR Aireko is responsible for complying with all requirements of documentation, permits and licenses efficiently for services of a complete installation of the WSS.

#### WET WET **System Installation Service: (WSS)**

The installation of all the components of the Water Storage System is the responsibility of AES. The installation will be as approved design and in compliance with the requirements of the manufacturer. Considering the following details:

- A safety installation,
- All costs of installation are the responsibility of Aireko Energy Solution.

All materials, tools, equipment, labor is the responsibility of AES in compliance with CEWRI-CI Program.

#### **Pre-Inspection/Commissioning: (WSS)**

Once the WSS is installed, Aireko proceeds with an internal inspection with our professional team to validate the correct installation and its functionality in accordance with the design. After our inspection, AES will present a Pre-Inspection Package with the following reports:

- Commissioning Report
- Design Drawings and Specifications
- Submittals Certifications
- Credentials of the Design Team
- Warranties
- Any additional document for reference

### **Inspection: (WSS)**

An electrical expert from our team with an inspector of PRDOH will visit the dwelling to physically inspect the installation and documentation presented previously to ensure compliance with the quality standards of the Program.

If the inspector reports any observation, Aireko is responsible to attend the correction or repair as soon as possible in a period of ten (10) calendar days. If AES does not comply with the stipulated Program's timeframe, will present a formal written reason for the reported observation during the inspection visit.

### **Additional Services (WSS):**

As an experienced company working as installer for CEWRI Program, the existing dwellings categorized as repair/relocation needed previous work to comply with the minimum requirements for the installation; most of these unforeseen conditions can be identified during the evaluation visit/ Pre-Installation Assessment and present them as part of the design.

If and only if Additional Services are required, Aireko will present a Working Plan to justify the necessity to add these services through a list of deliverables with their cost, action plan; including schedule and staff involved.

Aireko is compromised with our stakeholders, looking always for a safety and healthy environment. During all the tasks involved for the CEWRI-CI Program, Aireko presented an example of a Risk Report approved and executed for CEWRI Program, for early mitigation.

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An example of our compromise is the metrics presented by the CEWRI Program's Safety Manager for the year 2023.

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WET Aireko Energy Solution completed 2023 with an average of 94% on the safety compliance.

Both documents; Pre-Construction Risk Assessment Plan (PcRAP) and the FY2023 Safety Compliance by CEWRI Contractor (See Slide No. 6 of the Monthly Contractor Safety Officers Meeting) are attached/included as examples in the following pages.

AIREKO

Pre-construction RISK ASSESSMENT PLAN				(PeRAP)
Project General Information				
Project Name	CEWRI PV System	Client	PRDOH	
Project Number	482258-271	Owner's Representative	Tidal Basin	
Location	Various Dwelling Units	Project Inspector	Jonathan Quinones	
Executive Sponsor	AEG	Safety Officer	Claudia Delgado	
EHS Supervisor	Nestor Rodriguez	Engineering firm	AZ/Verifica/CJO	
Safety Officer	Carlos A. Berrie			
Executive Partner	Waldemar Toro	Project Classification:	Residential PV & WSS Installation	
Project Manager	Melvin Rodriguez	Trade	Electrical/Mechanical	
Project Engineer	Miguel Andaluz			
AEG Supervisor	Ramon Cabani	Remarks: No presencia de Asbesto y Plomo		
AEG Supervisor	J. Lebron/W. Cortez			
Contract Agreement Risk Management				
Start Date	2/28/2023	Billing Cut-Off Date	N/A	
Contract Duration	24 months	Payment Terms	90%/10%	
Substantial Completion Date	TBA	Late Payment Penalties	No	
Final Completion Date	Dec-24	Retainage %	No	
Liquidated Damages	No	Warranty Period	1 yr	
Governing Law	PR	Consequential Damages	TBA	
Dispute Resolution Method		Time Extension Conditions	TBA	
Limitation of Liability/Indemnification	\$2 MM	Remarks: Jurisdiction of Contract when doing projects outside of ELA PR Commonwealth.		
Insurances Checklist				
Sent to Accounting Dept.				
General Liability		Y	CA-46091392	
Builder's Risk		Y	PRCAR0344471-1	
Payment & Performance Bond		Y	107719595	
Worker's Compensation		Y	1518000369	
Professional Liability		N/a		
Completed Operations		N/a		
Surety Bond		N/a		
Remarks: To be aware when doing projects in EEUU, USVI, Caribbean Islands such as Barbados, St. Lucia.				
Government and Regulatory Permits Checklist				
Construction Permit No.		AAA Endorsement	N/a	
General Consolidated Permit No.		JRTPR Endorsement	N/a	
Excavations Permit No.		Fire Department (Bomberos)	N/a	
SWPPP Permit No.		Health Dept. (Salud)	N/a	
AEE Endorsement		Other Permits	N/a	
Remarks: To be aware when doing projects in EEUU, USVI, Caribbean Islands such as Barbados, St. Lucia.				
Environmental Risk Management & Method Statement				
Air		Soil	Hazardous Materials/Toxic Substances	Recycling
		Waste Disposal	Roof Sealing Material	Wood
				Cardboard
WET				
General Works Sequence & Scope				
Leadership		Risk	Preventive Action	Double Check
Disposicion de Madera, Carton .		Riesgos Ambientales (polvo fugitivo), Plagas, Olores.	Mantener area limpias en todo momento, disponer de basura diariamente, Coordinar limpieza inmediatamente sea necesario. Todo lo que se pueda reciclar se realizara lo propio por cada proyecto de cada casa a realizar.	
		Cilente No Satisfecho	Cumplimiento con el manejo de desperdicio 100% tapado e identificado. Localizarlo en zafacones o cajones de vehiculos.	
Derrames de aceite o combustible.		Riesgos Ambientales, Contaminacion de suelos, Contaminacion de aguas	Inspeccionar equipos rutinariamente. Identificar y corregir inmediatamente cualquier desperfecto mecanico. Tener disponible cerca del area de proyecto el spill kit.	
		Cilente No Satisfecho	No tener ningun incidente de derrame de contaminantes.	
Roof Sealing Material		Riesgos Ambientales fuera del proyecto / Area de almacen	Mientras este la pintura almacenada en el area de almacen de Aireko, mantenerla en gabinetes con doble contension asignados para estos productos.	
		Riesgos Ambientales dentro del proyecto / Interior del Edificio	Almacenar la pintura necesaria solo para el uso en progreso. Evitar excesos de almacenamiento en proyecto. Poner plastico debajo donde se coloque la pintura. Debe disponerse del cartucho sin ningun residuo o que este seco.	
		Cilente No Satisfecho	Cumplimiento con el manejo adecuado de pinturas y otros productos.	





Pre-construction RISK ASSESSMENT PLAN			(PcRAP)	
Health Risk Management & Method Statement				
Fumes		Housekeeping	Injuries/ Disease	Noise
Silica		Trash Bags	Injuries - concussion	Manual Tools
Chemicals		Cleaning Material Station	Disease - Covid, Cancer, Emphysema	Electrical Tools
		Recycling	Sickness - Cold & Flu	Cut tools
			Airborne Fibers & Materials -asthma	
General Works Sequence & Scope	Leadership	Risk	Preventive Action	Double Check EHS
Control de Polvo (Silica)		Perforaciones en paredes y techo peligro de silica Cristalina.	Se mantendra el area mojada o utilizar vacuum para cuando se esten realizando la perforaciones. Seguir las recomendaciones de la Tabla #1 de OSHA.  Toda area debe estar limpia y organizada.	
Quimicos		Empleados durante aplicacion podrian intoxicarse si las areas no estan ventiladas	Discutir SDS de productos con los empleados para que conozcan riesgos y como prevenirlos. Proveerle equipos y herramientas necesarias para la actividad de acuerdo al SDS.	
Agua y comida		Envenenamiento y/o Intoxicacion por agua potable sucia, contenedores de agua potable sucios.	Mantener los contenedores de agua potable limpios y sellados una vez se llenen en la mañana. Identificar quien lo prepare y fecha. Utilizar Vasos desechables.	
		Comida dentro de los predios de trabajo	Solo comer en areas designada y mantener areas limpias y organizadas.	
Disposcion de Basura		Incumplimiento con Housekeeping pudiera causar accidentes y enfermedades	Inspeccionar constantemente dando enfasis a mantener areas de trabajo limpias y organizadas. Toda basura sera colocada en bolsas desechables.	
		Cliente No Satisfecho	Cumplir con el plan de limpieza continua e inspecciones constantes. Mantener el plan de manejo de desperdicios y disponer de ellos minimo a diario.	
Injuries/ Disease		Heridas durante la ejecucion de actividades, golpes, laceraciones personal con alguna condicion de salud.	Preparar un Analisis de Riesgos de Actividades "Críticas o Altamente Peligrosas" segun lo requiere Aireko y el cliente. Establecer un plan o Method Description para cada una de estas actividades. Antes de comienzo de cualquier actividades, durante la pre-planificación, los supervisores junto con los empleados identificaran los riesgos particulares de cada tarea identificando los mismo en el PTP, la Inspeccion del cliente y estableciendo como eliminar o reducir los riesgos. Identificar el Dispensario mas cercano y tener un Botiquin de primera ayuda en el area.	
Ruidos en Demolicion y Penetracion.		Contaminacion por ruido en demoliciones	Se identificaran los riesgos asociados a ruidos excesivos durante la generacion del PTP para que pueda entregarse a empleados tapones de oido.	

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Pre-construction RISK ASSESSMENT PLAN (PcRAP)					
Safety Risk Management & Method Statement					
<input type="checkbox"/> Concrete & Masonry	<input type="checkbox"/> Public Access & Exposure	<input type="checkbox"/> Materials handling	<input type="checkbox"/> Electrical site Works	<input type="checkbox"/> Others:	
<input type="checkbox"/> MEP Intervention	<input type="checkbox"/> Steel Erection	<input type="checkbox"/> Staging Plan	<input type="checkbox"/> Electrical Works Inside/Outside Building	<input type="checkbox"/> Housekeeping	
<input type="checkbox"/> Rigging Plan/Lifting Plan	<input type="checkbox"/> Above Ground Utilities Protection	<input type="checkbox"/> Scaffolding	<input type="checkbox"/> Hand & Power Tools	<input type="checkbox"/>	
<input type="checkbox"/> Confined Spaces	<input type="checkbox"/> Preservation of Historical Resources	<input type="checkbox"/> Walking & Cutting	<input type="checkbox"/> Cranes /hoists /Elevators	<input type="checkbox"/>	
<input type="checkbox"/> Demolitions & Blasting	<input type="checkbox"/> Core Drilling/Sew Cutting	<input type="checkbox"/> Traffic Control Plan	<input type="checkbox"/> Heavy Equipment	<input type="checkbox"/>	
<input type="checkbox"/> Trenching & Excavations	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Plumbing	<input type="checkbox"/> Trenching & Excavation	<input type="checkbox"/>	
<input type="checkbox"/> Drillings	<input type="checkbox"/> Roof Works	<input type="checkbox"/>	<input type="checkbox"/> Ladders / Stairways	<input type="checkbox"/>	
General Works Sequence & Scope	Leadership (Name & Company)	Risk	Preventive Action	Double Check Required	
Generación de Permisos/ PTP		Comenzar trabajos sin los debidos permiso de trabajo Comenzar trabajos sin llenar ni discutir con personal el PTP. Desviación del plan de trabajo y atajos al momento de realizar trabajos.	Todo trabajo a comenzar debiera estar acompañado de su permiso, PTP , Hoja Insp. Cliente y debiera ser discutido y firmado por el personal envuelto en tareas. No se permitira desvíos a normas de seguridad ni desvíos para avanzar tareas. Se debiera informar cualquier anomalia o suceso que pueda comprometer la salud del personal. Se requierita supervision constante.		
Movimiento de materiales y almacenamiento mientras se realizan trabajos.		Golpe, cortaduras caída , tropiezo, resbalones por ubicar materiales en áreas que obstruyan el transito y libre acceso a las áreas , Hacer movimiento por ruta no coordinada. Almacenar material/equipo de forma desordenada.	Utilice el Equipo de Protección Personal en todo momento.Se debiera mantener las areas limpias y organizadas.Todo material debiera ser organizado en un area donde no afecte el libre transito del personal ,areas de trabajo,ni personas ajenas a obras. Segregar y rotular areas a ser impactadas. Utilizar un hand truck para los movimientos de los diferentes materiales. Para subir la sistema en el techo de la casa se debiera llevar un procedimiento de trabajo seguro y no exponerse a caídas.		
Penetración de paredes/techo.		Cortadura, golpes en la mano por uso de herramientas defectuosas, laceración y pinchazos, shock eléctrico,partículas en ojos y cara,Caída por mal posicionamiento de escalera al accesar subir al techo,Caída de altura,caída de materiales.	Utilice el EPP adecuado y opere las herramientas por los mangos y partes proporcionadas por el fabricante. Mantenga las manos fuera de la zona de corte o punto de funcionamiento. Todo el personal debe estar capacitado en el uso adecuado de las herramientas. Todas las herramientas deben tener su inspeccion mensual y deben ser inspeccionadas antes de cada uso.en herramientas electricas se debiera utilizar extensiones en buenas condiciones, uso GFCI. Descarte toda herramienta defectuosa. Utilice facoshield mientras realice cortes o perforaciones que generen partículas que pueda causar dano a lo ojos y caras. Observar area de acceso a techos estos deben estar en area estable y libre de obstaculos, esta debiera estar en posicion correcta 4:1 y sujetadas, sobrepasar los 3' por encima de la superficie del techo. Mientras se realicen trabajos en altura cerca de los bordes se debiera crear anclaje seguro para evitar riesgo a caída, utilizar body harness y lanyard mientras se realicen trabajos en altura. Se instalara unos banderines para delimitar el area donde tengan riesgos en bordes de los techos.		
Instalación del sistema de anclaje fotovoltaico		Golpes,Cortaduras,Pinchazos,Tropiezo,Resbalones,caídas, Partículas en los ojos y cara,lesion en hombros y espalda por exceso de fuerza o movimientos repetitivos,Caída de altura, Caída de materiales .	Utilice el EPP en todo momento. Mantener las areas limpias y organizadas para evitar riesgo de tropiezo. Opere las herramientas por los mangos y partes proporcionadas por el fabricante. Mantenga las manos fuera de la zona de corte o punto de funcionamiento. Todo el personal debe estar capacitado en el uso adecuado de las herramientas. Todas las herramientas deben tener su inspeccion mensual y deben ser inspeccionadas antes de cada uso. En herramientas electricas se debiera utilizar extensiones en buenas condiciones, uso GFCI. Descarte toda herramienta defectuosa. Utilice faceshield mientras realice cortes o perforaciones que generen partículas que pueda causar dano a lo ojos y caras. Protección contra caída debara utilizarse si se sobrepasa los 6' de altura o se esta realizando trabajos en bordes donde exista riesgo a caída, se debiera crear anclaje seguro para trabajos con riesgo a caídas. Todo levantamiento manual debiera realizarse en pareja para evitar lesiones .	X	
		Agotamiento por calor y tension	En cada area de trabajo habra agua potable disponible en un envase sellado y debidamente identificado con fecha y persona que lo prepara. Monitorear temperatura del area para tomar medidas de descanso y evitar incidente relacionados a fatiga por calor y tension. Si el empleado se siente agotado o mareado se llevara a un area con sombra y tomar agua fresca en pocas porciones. De no haber mejoramiento se activara el protocolo de emergencia.		

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Pre-construction RISK ASSESSMENT PLAN			(PcRAP)
Instalación de cable fotovoltaicos		<p>Golpes, Cortaduras, Pinchazos, Tropezos, Resbalones, caídas, Partículas en los ojos y cara, lesión en hombros y espalda por exceso de fuerza o movimientos repetitivos, Caída de altura, Caída de materiales .</p>	<p>Utilice el EPP en todo momento, mantener las áreas limpias y organizadas para evitar riesgo de tropiezo. Opere las herramientas por los mangos y partes proporcionadas por el fabricante. Mantenga las manos fuera de la zona de corte o punto de funcionamiento. Todo el personal debe estar capacitado en el uso adecuado de las herramientas. Todas las herramientas deben tener su inspección mensual y deben ser inspeccionadas antes de cada uso. En herramientas eléctricas se deberá utilizar extensiones en buenas condiciones, uso GFCI. Descarte toda herramienta defectuosa, Protección contra caída deberá utilizarse si se sobrepasa los 6' de altura o se está realizando trabajos en bordes donde exista riesgo a caída, se deberá crear anclaje seguro para trabajos con riesgo a caídas. Todo levantamiento manual deberá realizarse en pareja para evitar lesiones. Tener unas botellas destilada de "Eye Watch" en el área para estabilizar a la persona o identificar una llave de agua para tal propósito.</p>
Instalación de inversores fotovoltaicos		<p>Golpes, Cortaduras, Pinchazos, Tropezos, Resbalones, caídas, Partículas en los ojos y cara, lesión en hombros y espalda por exceso de fuerza o movimientos repetitivos, Caída de altura, Caída de materiales .</p>	<p>Todo personal utilizará el EPP en todo momento. Personal que realice crtes que puedan generar partículas deberán usar faceshield para la protección del rostro. Se distribuirá la carga entre dos personas, se deberá evitar movimientos repetitivos que puedan causar lesiones musculares por uso de fuerza. Utilizar equipo mecánico para movilizar materiales que excedan peso para su movilización manual, crear anclaje seguro para realizar trabajos cerca de bordes que representen peligro de caída. Utilizar equipo de protección contra caída (realizar trabajos en borde u orillas (body harness/lanyard). Todo material/equipo subido al área de trabajo (techo) deberá estar almacenado lejos del borde u orilla y en área que no obstruya el libre acceso (subir/bajar). Los sobrantes se dispondrán al momento (no debe haber material acumulado en el área que no se vaya a utilizar y si es así debe estar organizado. Cuando se trabaje con la escalera tipo A habrá un empleado aguantandola y pasando los materiales y herramientas al que realiza tarea. Instalador debe utilizar todo el tiempo tapones de oídos y protector de cara.</p>
<p>WRR</p> <p>WET</p> <p>Instalación de paneles fotovoltaicos y WSS sobre techos.</p>		<p>Pinchazos, Lastimadura de espalda, cortadura, levante y caída de objeto, nivel de alto ruido, particulado en los ojos, caída de altura, caída por mal uso escalera , shock eléctrico.</p>	<p>Personal deberá utilizar el EPP en todo momento. En los movimientos de material se distribuirá la carga para que el peso no exceda las 50lbs por empleado. De exceder el peso se deberá utilizar equipo mecánico para la movilización de material al área de trabajo. Todo trabajo a realizar cerca de bordes u orilla deberán contar con un anclaje seguro y personal deberá realizar trabajos con equipo de protección contra caída (body harness/lanyard). El uso de escalera deberá realizar de forma segura y siguiendo recomendaciones de seguridad y recomendaciones del fabricante. Escaleras deben tener la inspección mensual y estar en condiciones para su uso, esta deberá estar colocadas en terreno estable y de fácil libre acceso. Toda herramienta eléctrica a utilizar deberá tener su inspección mensual e inspección diaria antes de su uso esta debe tener todo sus partes y/o guardas y estar en perfectas condiciones para su uso. Toda extensión eléctrica deberá estar en condiciones, sin cortaduras y cabezales contar con sus Ground, utilizar rabiza de GFCI.</p> <p>X</p>

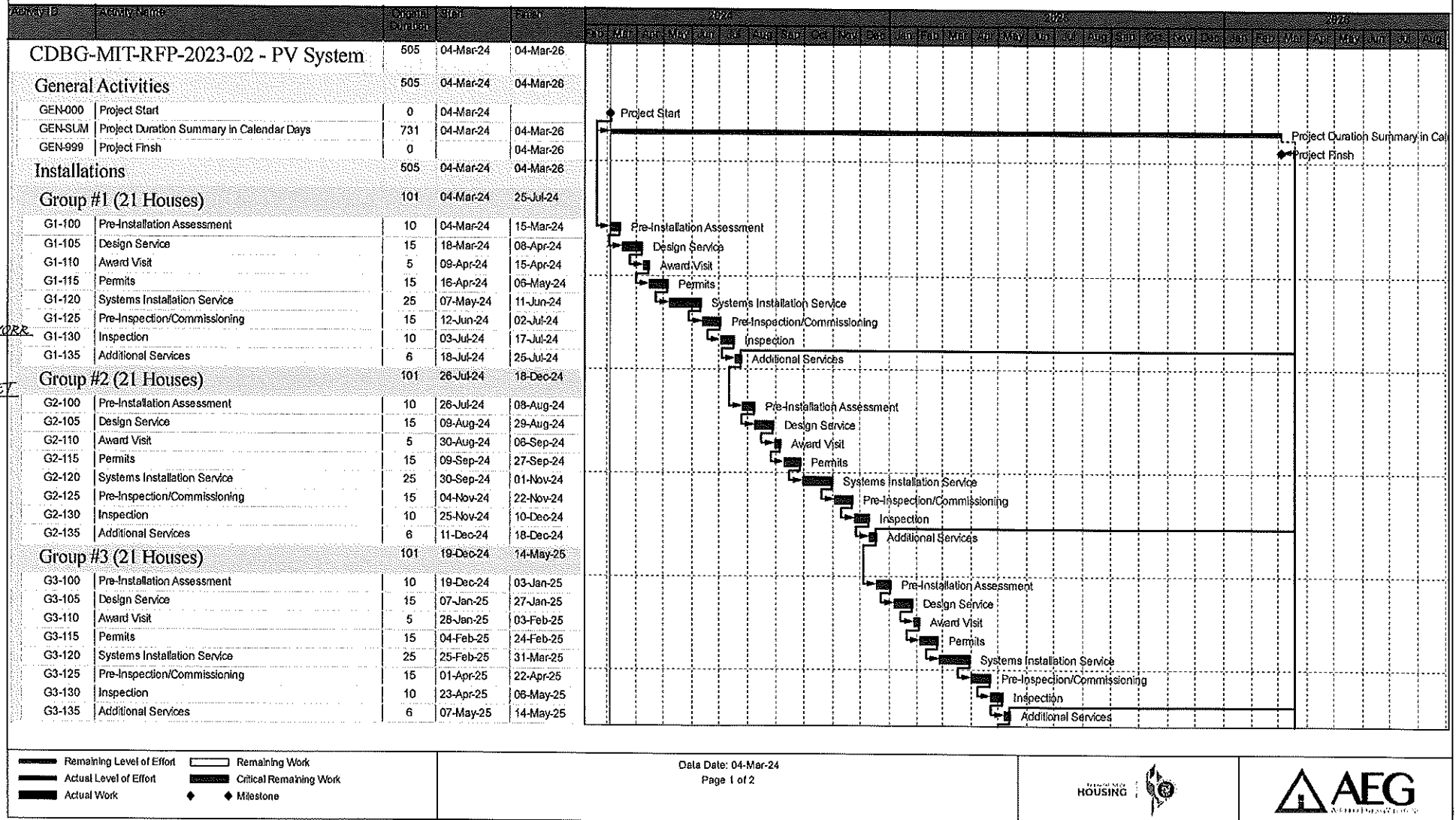
AIREKO

Pre-construction RISK ASSESSMENT PLAN			(PcRAP)	
Procedimiento de Bloqueo y Etiquetado LOTO		Shock Electrico por mal procedimiento al momento de intervenir con energía. No seguir protocolos ni normas de seguridad establecida para la clase de trabajo.	Los trabajadores deben implementar un procedimiento de bloqueo y etiquetado (LOTO) antes de comenzar con esta tarea. Los trabajadores deben tener el vestuario adecuado según análisis de la fuente de energía y los requisitos del NFPA 70E para desenergizar equipos e implementar el procedimiento de bloqueo y etiquetado. Los trabajadores deben asegurarse de que tanto los módulos como el cable fotovoltaico estén desconectado y sin voltaje en ambos extremos antes de instalarlos. Se estará utilizando la forma corta de intervenciones eléctricas.	X
Limpieza y de-mobilización		Cortaduras, Pinchazos, particulado en ojos, golpes, resbalones, Limpieza pobre.	Utilizar el EPP indicado para cada actividad particular. Todo material y equipo de trabajo sera removido del area al terminar turno de trabajos. Todo material sobrante y basura generada durante las labores sera removida y las area organizadas.	
Soldadura de tubos de cobre. Intalacion de cisterna de agua.		Quemaduras, explosion, fuego	Utilizar el EPP indicado para la actividad. Tener un extintor presente al momento de soldar. Tener adiestramiento en el uso de sopletes. Guardar los tanques de propano en un lugar designado para ello, alejado del fuegos, llamas y sustancias famables.	
Risk Analysis by:		Signature:		Date:
Risk Analysis Revised by:		Signature:		Date:
Nestor Rodriguez				

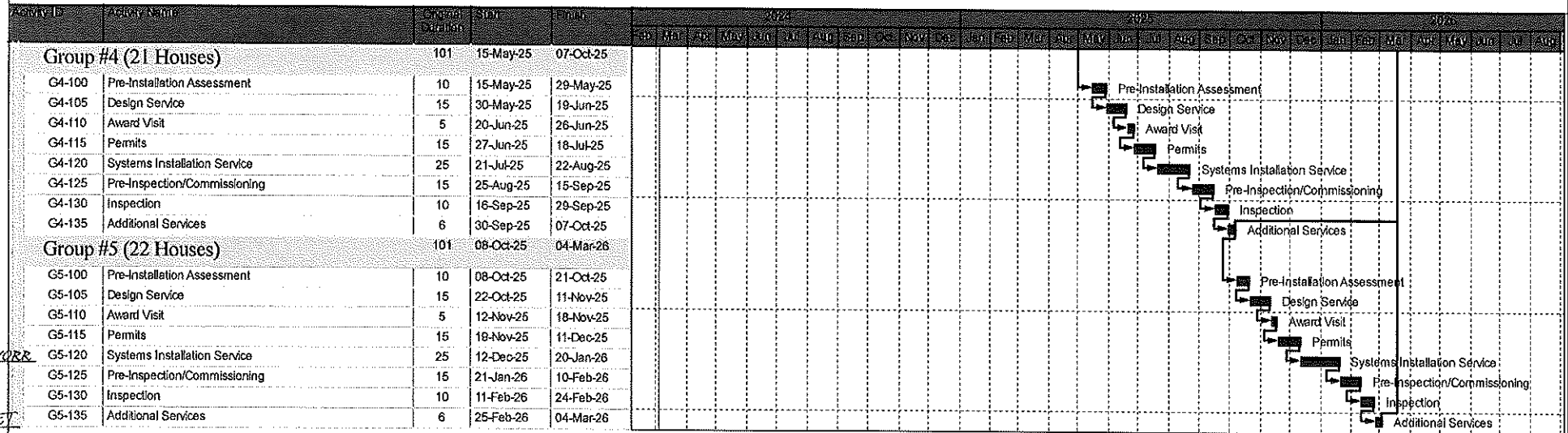
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## CDBG-MIT-RFP-2023-02 - PV Systems, Water Storage System Design, Acquisition & Installation Service

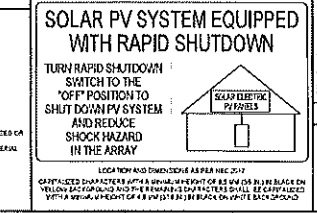
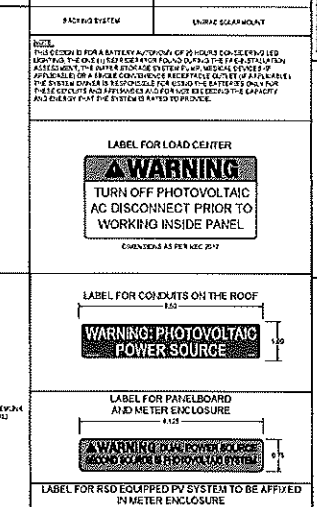
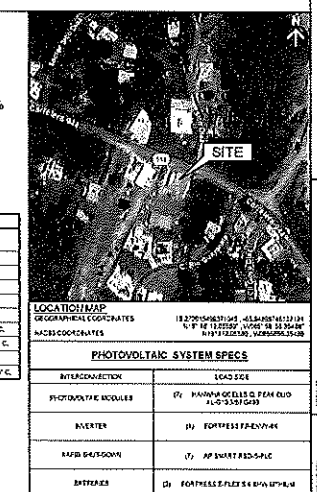
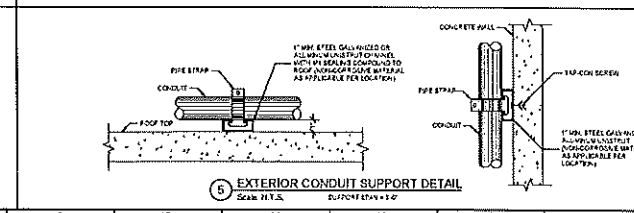
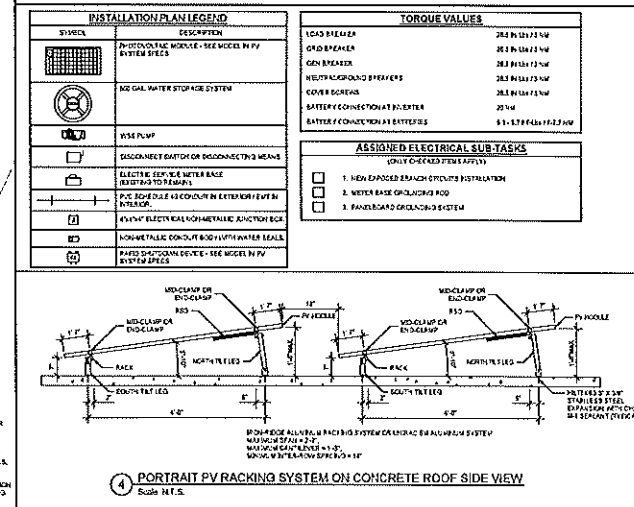
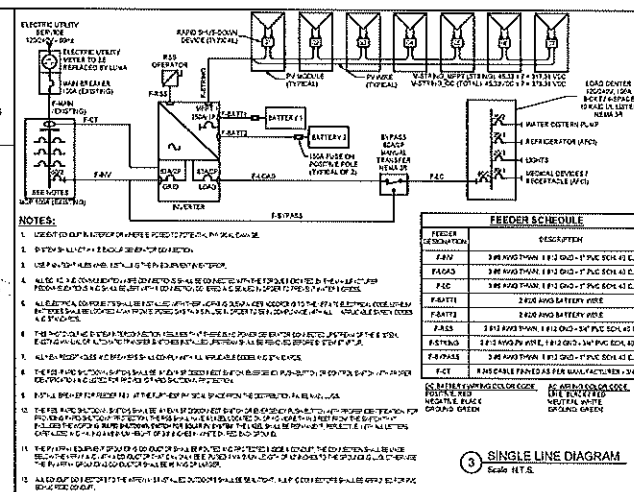
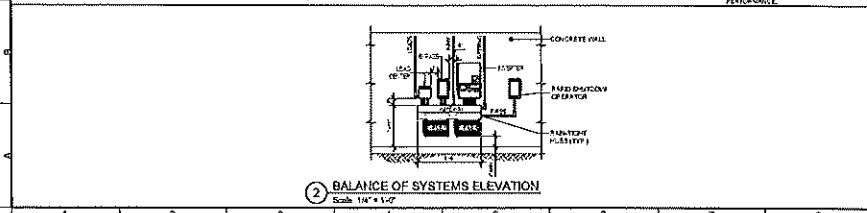
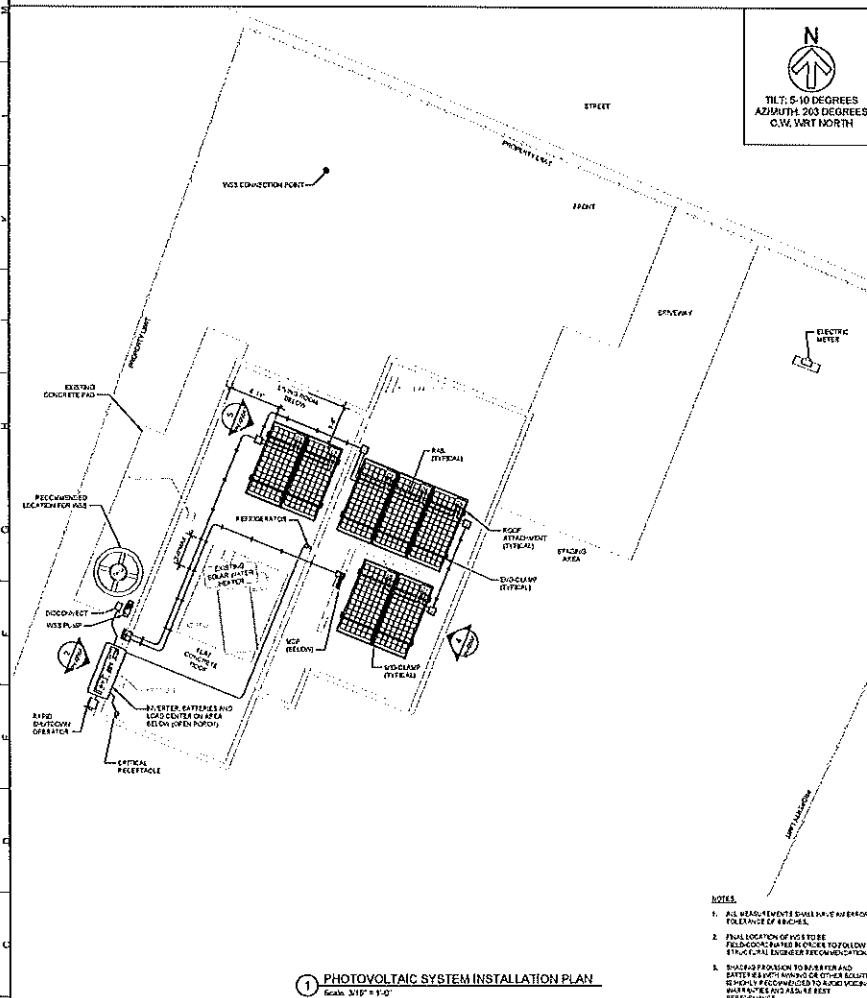


## CDBG-MIT-RFP-2023-02 - PV Systems, Water Storage System Design, Acquisition & Installation Service



# MERCADO GONZALEZ, JOSEFA RESIDENCE SOLAR PHOTOVOLTAIC SYSTEM

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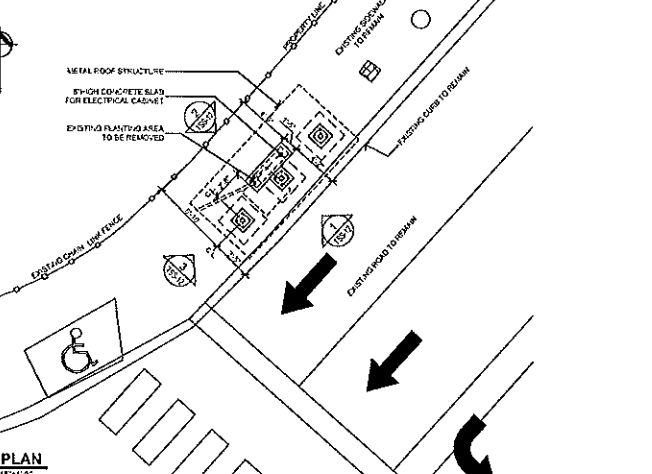
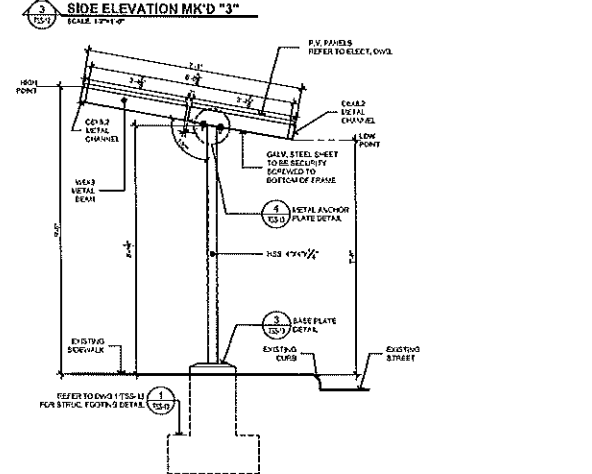
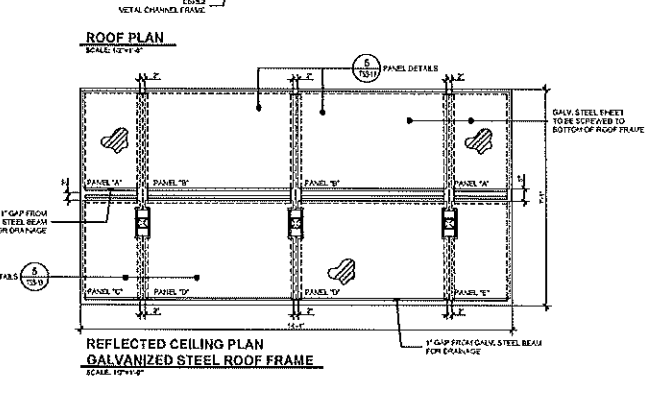
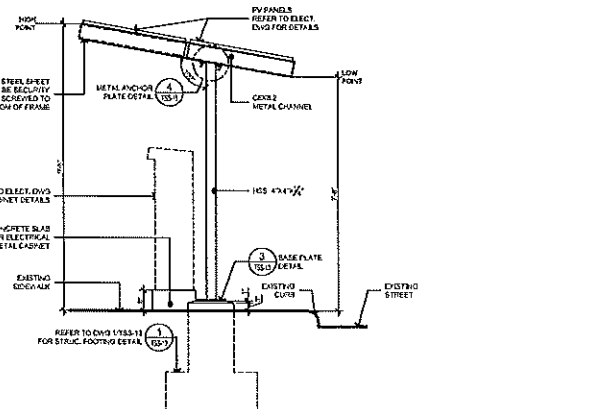
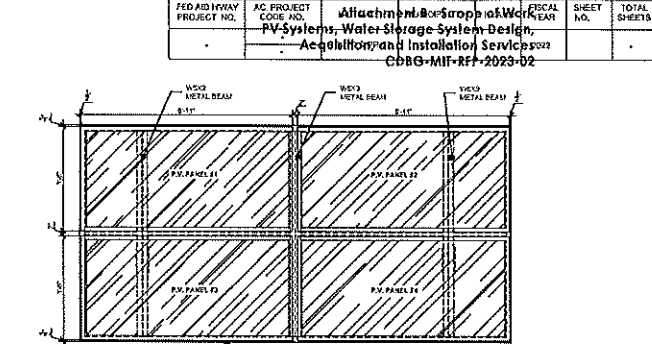
PROJECT NO.: PV-05543  
APPLICANT: JOSEFA GONZALEZ  
PV SYSTEM SIZE: 3.35 KWDC  
PV SYSTEM AC CAPACITY: 9 KW  
ENERGY STORAGE: 10.8 KWH  
UTILITY METER: 18000000  
LUNA ACCOUNT NO.: 511885000  
LUNA SITE ID: 5143301412

DATE: 2/15/2024  
BY: J. GONZALEZ  
CHECKED: J. GONZALEZ  
APPROVED: J. GONZALEZ

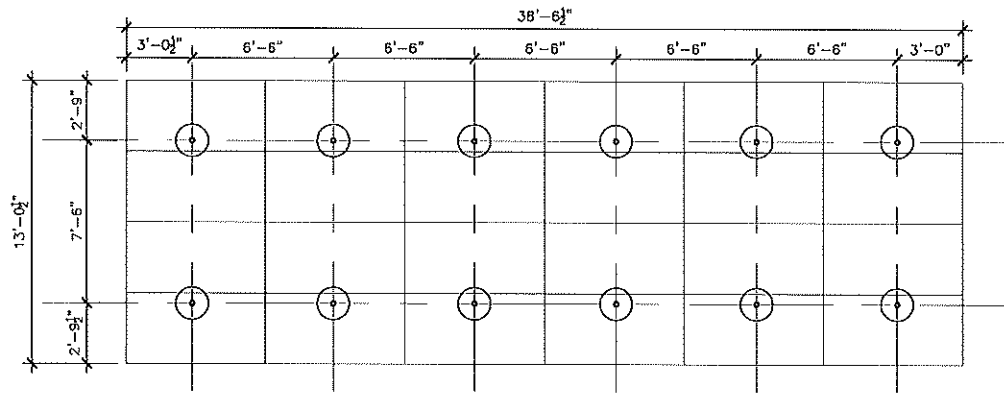
PROJECT NO.: PV-05543  
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PV SYSTEM AC CAPACITY: 9 KW  
ENERGY STORAGE: 10.8 KWH  
UTILITY METER: 18000000  
LUNA ACCOUNT NO.: 511885000  
LUNA SITE ID: 5143301412

DATE: 2/15/2024  
BY: J. GONZALEZ  
CHECKED: J. GONZALEZ  
APPROVED: J. GONZALEZ

**FLOOR PLAN**

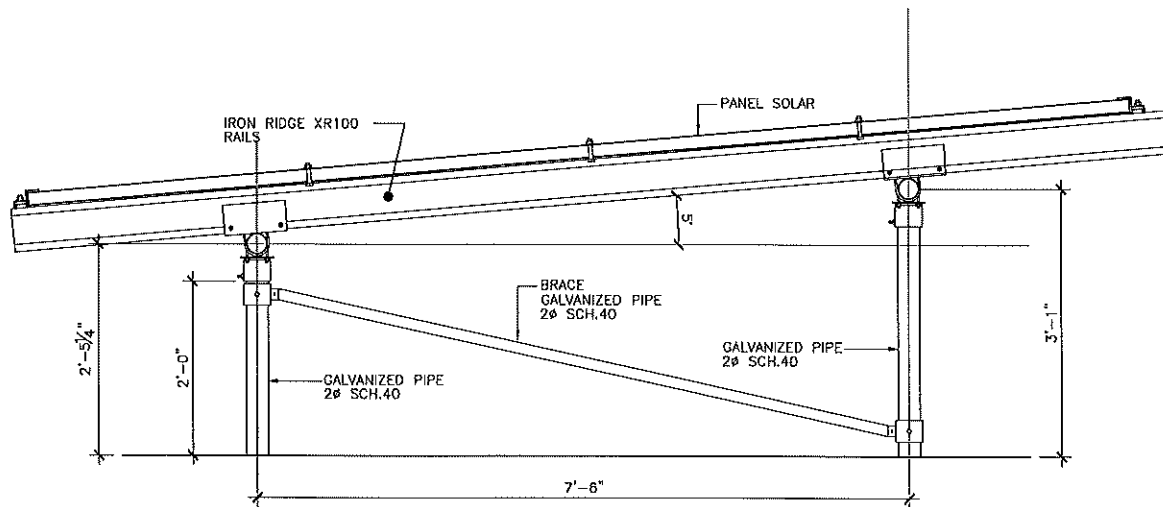






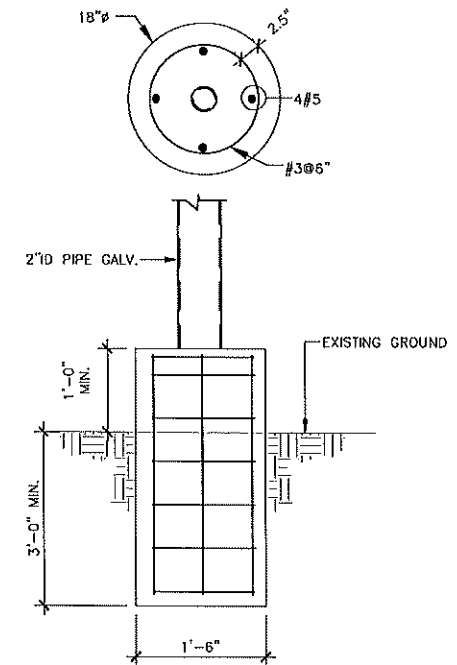
## GROUND MOUNT FOUNDATION PLAN

SCALE: 3/16"=1'-0"



## TYP. SECTION

SCALE 3/4"=1'-0"

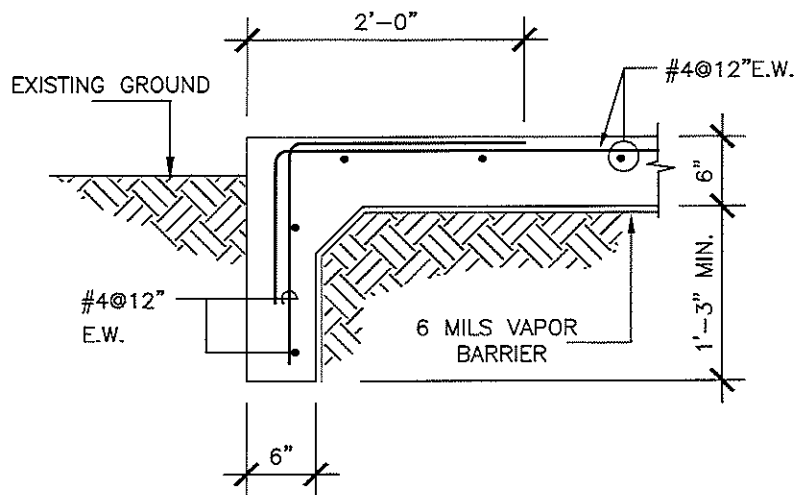


## FOOTING DETAIL 1

SCALE: 3/4"=1'-0"

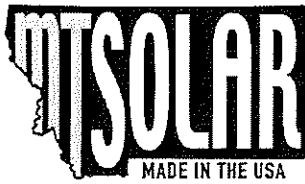
SCALE:  $1/4" = 1' - 0"$

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SCALE:  $3/4" = 1' - 0"$

MARCH 6, 2024



# CDBG-MIT-RFP-2023-02 Proposal

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Presented To  
Victor Cruz  
Aireko Energy Solution, LLC

Presented by  
Jamie Blum  
MT Solar

## PROJECT PROPOSAL

# Project Summary

### The Location

Orocovis  
Puerto Rico

### Project Description

This project will consist of 9 - 3kW dc PV Pole mounted systems located in Orocovis, Puerto Rico. The wind and snow loads are based on information received from a past project in the same area.

### Engineering Inputs

Module Dimensions	Wind Speed
EST. 87.2 X 41.1 INCHES	200 MPH
Ground Snow Load	Wind Exposure
0 PSF	CATEGORY B

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### Our Best Solution

This proposal is for 9 - single pole mounts that will hold 10 modules each

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- (9) TOP-10 pole mounts
- Modules in landscape - 5 rows x 2 columns
- (9) 6" schedule 40 pipe for vertical support requirements
- 5 ft. front edge ground clearance at 5° tilt
- The horizontal array length is 14' 7"
- Total array height at tilt is 6' 5"
- Tamarack extruded rail Kit with attachment hardware included

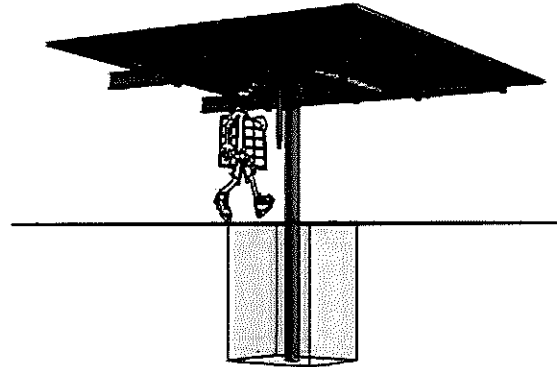
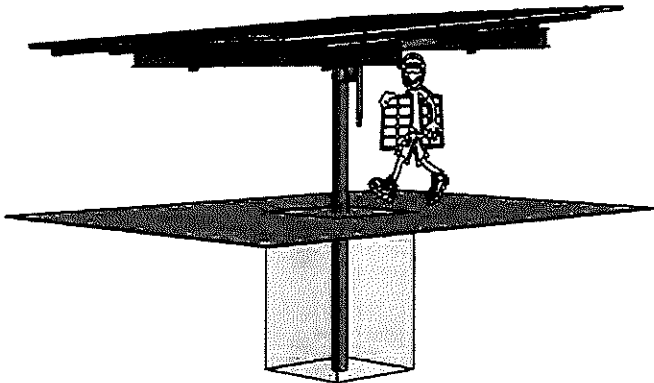
### Standard MT Solar features:

- MT Solar racks have a manually adjustable tilt range of 5° to 90°
- Patented hoistable design for labor savings
- Fully engineered design
- Made in the USA

MT Solar's design team will work with you through the engineering process to optimize tilt and production efficiency as needed.

PROJECT PROPOSAL

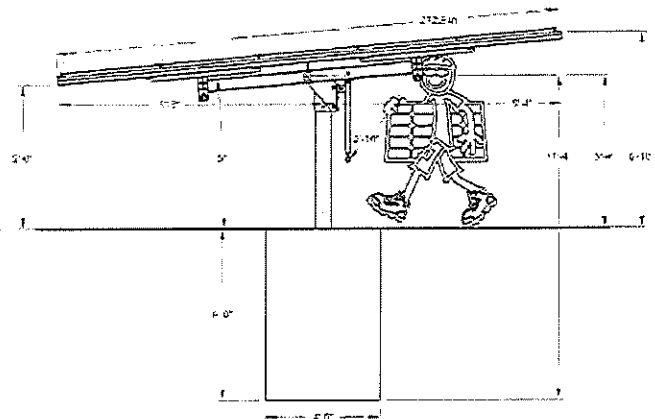
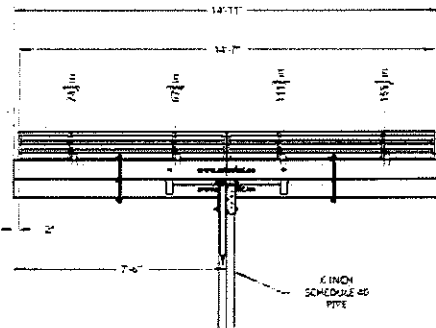
# Construction Drawing & Product Image



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THIS DRAWING IS A PRELIMINARY DESIGN AND IS NOT TO BE USED FOR CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE USER TO OBTAIN ALL NECESSARY PERMITS AND TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE PROTECTION OF THE PUBLIC. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC.



ITEM	QUANTITY	NAME	MASS
1	4	BEAM-HD RING-45 INCHES	45.4 LB
2	2	BEAM-HD CENTER-30 INCHES	56.3 LB
3	2	TUBE-HD 2X4-9000	72.3 LB
4	1	PIPE-HD-2IN	19.2 LB
5	1	PIPE-HD-4IN	57.5 LB
6	2	LOCK-COLLAR-4	1.2 LB
7	1	HOLECAP	34.9 LB
8	1	RACK-PLATE-X	17.3 LB
9	1	LIFT-INSERT-4	5.3 LB
10	1	ADJUSTER-SCREW	11.9 LB
11	2	BEAM-SPICE-BOLT-4X10	1.7 LB
12	1	SPIN-PREVENTION-KIT	0.3 LB
13	2	TAMARACK-GROUND-LEG	9.1 LB
14	24	TAMARACK-SOISO-CLAMP	0.1 LB
15	16	TAMARACK-RAIL-ADAPTER-WITH-BOLT	11.1 LB
16	4	TAMARACK-SL-RAIL-CUT-212.3 INCHES	16.5 LB
17	3	SPREAD-CLAMP-4FT-WITH-BOLDS	12.2 LB
18	1	BOLT-W/4 TOP-BEAM	N/A
19	1	PALETTE-PACKAGING-MATERIALS	N/A

Tamarack Rail Detail		
ITEM	QUANTITY	NAME
1	4	TAMARACK-SL-RAIL-CUT-55 INCHES
2	4	TAMARACK-SL-RAIL-CUT-40 INCHES
3	8	TAMARACK-SL-SPICE
4	16	TAMARACK-RAIL-FAST
5	12	HEX-BOLT-5/16-18X1

DESIGN CRITERIA	
Max Wind: 110	
Module Dimensions: 41.1" x 87.2"	
Wind Speed: 750 mph, Wind Dir: 15	
Ground Snow: 0.25	
Seal: 2" N/A	

CDBG-MIT-RFP-2023-02	
1P-0-6TOP-HD-45-L-5Hx2W-9565	
MTSOLAR	
Oracovh, Puerto Rico	
DOT	03-06-0024

PROPOSED PROPOSAL

# Mount & Additional Costs

Item & Description	Quantity	Unit Price	Total
Stamped Engineering Drawing with Calculations	1	\$	\$
CDBG-MIT-RFP-2023-02	9	\$	\$
This TOP-10, Single Pole Mount is designed for 10 modules with dimensions of 87.2 inches by 41.1 inches and an array layout of 5 high by 2 wide. SKU: 1P-0-6TOP-HD-45-L-5Hx2W-9665 Tamarack Extruded Rail Kit with Attachment Hardware Included			
Chain Hoist & Lift Bracket	1	\$	\$
15' chain and 1 ton capacity Safety Chain Included			
6" sch 40 Steel Poles Required - (Not Included)	9		
12' total length			
Concrete Required - (Not Included)			
32 Total Cubic Yards			

Subtotal	\$
Shipping to Maimi, Fl.	\$
Total	\$

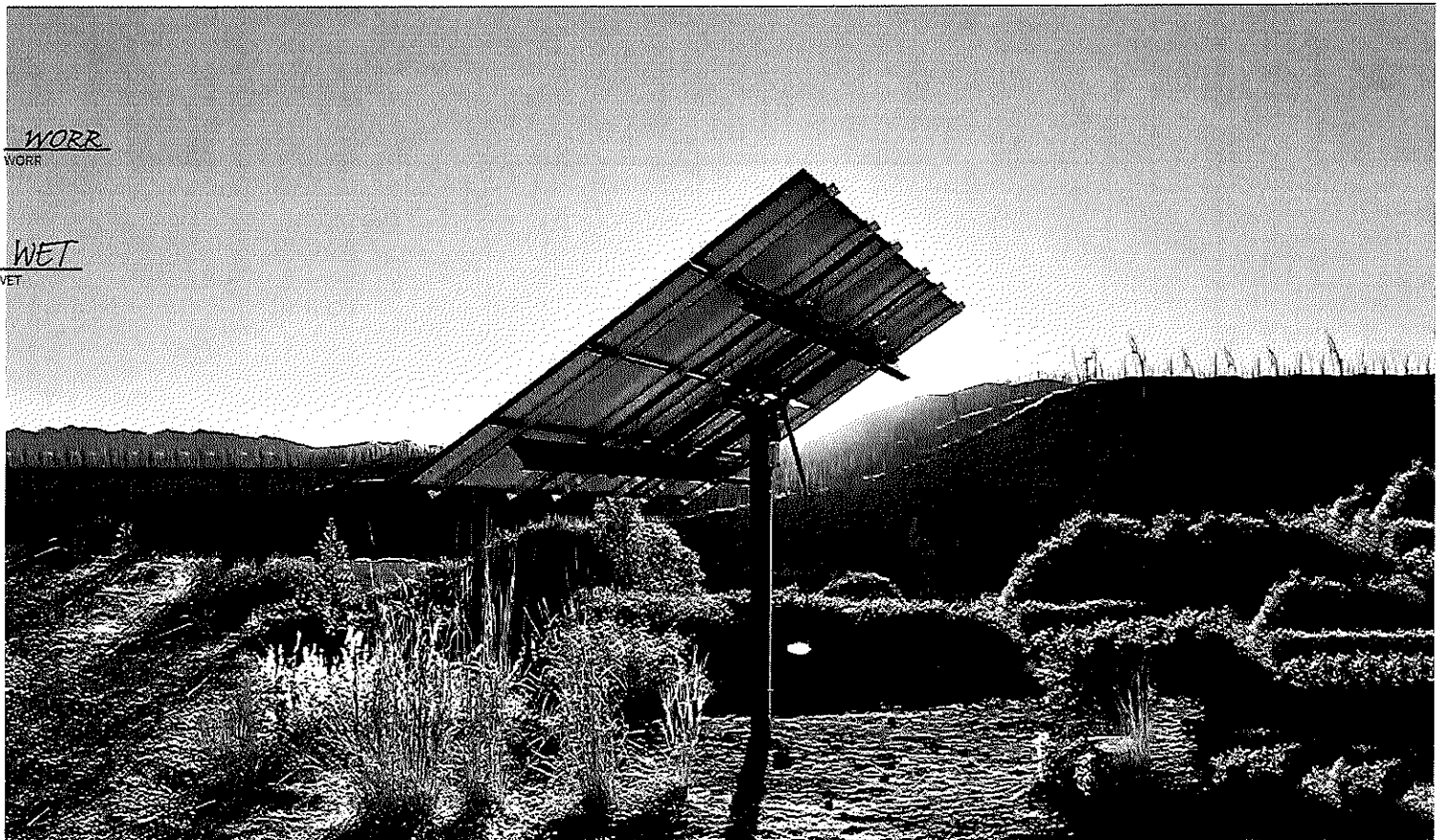
**Purchase Terms**  
25% deposit down  
50% on release to manufacturing  
Final 25% to be paid prior to shipping

**Quote Expiration**  
Expires 120 days from date on cover sheet.



# Proposed Timeline

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
Finalize Mount Design. <b>25% Down</b>	Request Engineering Services	Release to Manufacturing <b>50% Down</b>	Secure Permitting, Site Prep, Install Steel Poles	Ready to Ship. <b>Final Payment Due</b>	Receive Mount, Assemble and Install



Let's continue the conversation...

[www.mtsolar.us](http://www.mtsolar.us) | [sales@mtsolar.us](mailto:sales@mtsolar.us) | 844-687-6527



# Installation Manual

Beam Series Top of Pole Mount

[www.mtsolar.us](http://www.mtsolar.us)  
844-MT-SOLAR (687-6527)

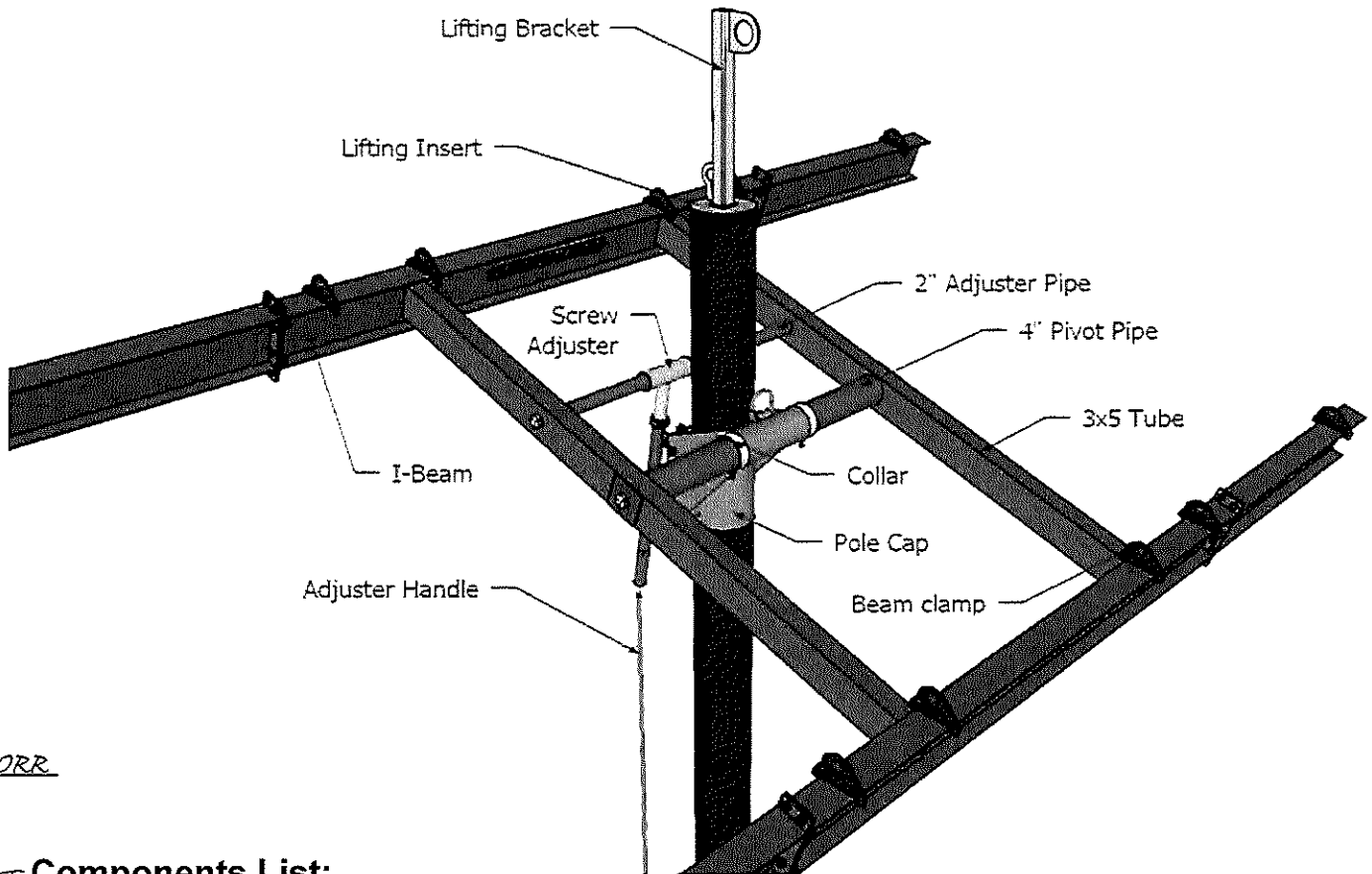
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## Beam Series TPM Components



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### WET Components List:

Qty	Description
2	Center I-beams, 90 Inches Long
4	Wing I-beams, Lengths Vary
2	3x5 Tubes, 90 Inches Long
1	4.5" Pivot Pipe
1	2" Adjuster Pipe
1	U Bracket / Pole Cap
1	Adjuster
1	Adjuster Handle (only available with screw adjuster)
1	Back Plate
**	Beam Clamps
2	Locking Collars
1	Square Insert Cap (located in Bolt Kit)
1	Lifting Insert
1	Bolt Kit Beam Series
<b>Installers Package (Optional)</b>	
1	Chain Fall Hoist
1	Lifting Bracket

### Tools Required:

- 1 1/8" Socket
- 3/4" Socket
- 9/16" Socket
- Crescent Wrench
- Torque Wrench
- Tape Measure
- Angle Finder
- Compass
- Ladder

\*\* Varies depending on the number, size and layout of modules.

See packing list for Quantity.

## Thank you for choosing MT Solar Pole Mounts.

It is the installer's responsibility to determine the foundation parameters based on local site conditions, such as wind speed, snow load, soil type, exposure category, etc. Installations also must comply with local building regulations and permitting requirements.

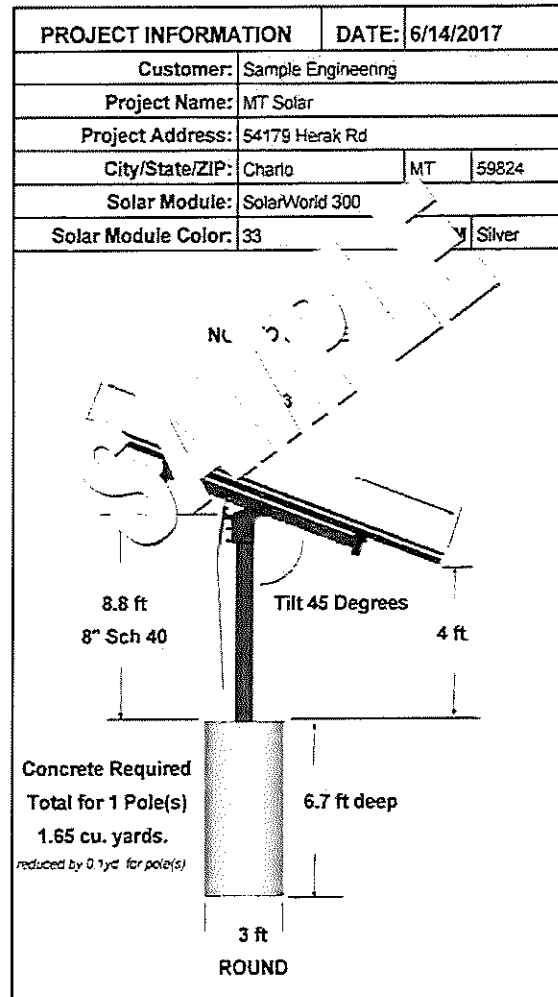
We recommend consulting a licensed engineer to determine appropriate foundation dimensions and pipe size and thickness. MT Solar can also provide a stamped drawing engineered for site-specific requirements for an additional fee. Please contact us to find out more.

### Tips for Conventional Pipe Installation:

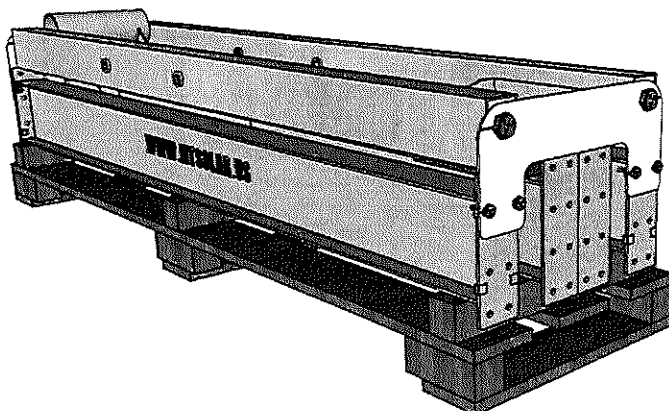
- Dig hole according to recommended depth & diameter.
- Set pipe in hole and use a level to ensure it is plumb and vertical to the ground.
- If installing multiple poles, use a string to line up pipes.
- Build rebar cage according to specification.
- Brace pipe to prevent movement while pouring concrete.
- Pouring so that concrete is in direct contact with the soil is recommended. If forming or using sonotube, properly compact backfill.
- Allow concrete to cure for recommended length of time.

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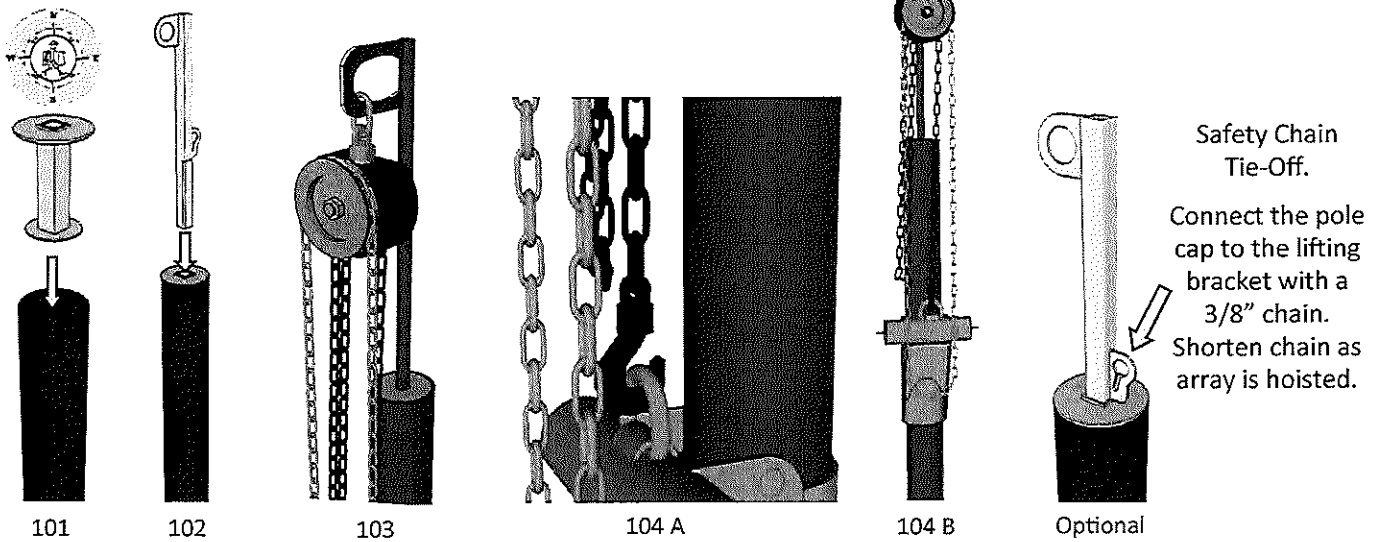


## Un-packaging your mount...



Remove steel plates on both ends of pallet to begin unpacking parts. You will not need the plates or hardware for the assembly of the mount.

# Installation Guide



**101:** With the vertical steel support pole installed in the ground, orient the compass to the north and place the lifting insert into the pole until it sits flush with the top.

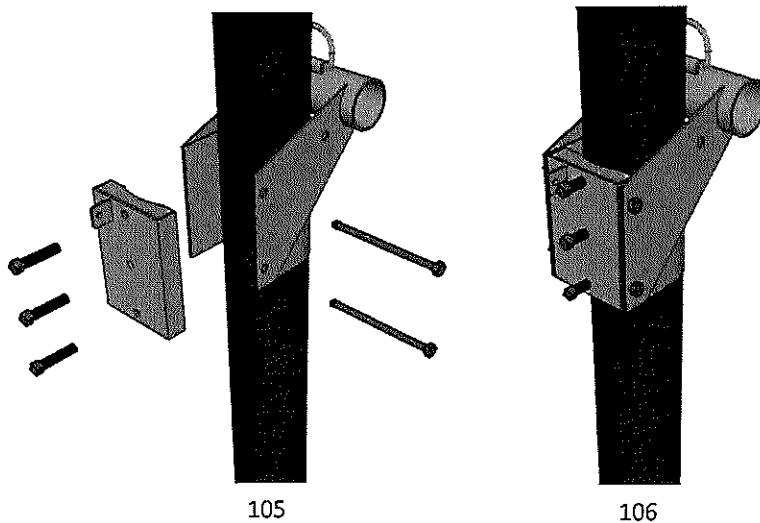
**102:** Place the lifting bracket into the lifting insert with the eye facing south.

**103:** Hang a 1 ton or greater chain fall hoist from the lifting eye.

**104:** Hang the U Bracket Assembly on the Chain Hoist. Attach safety chain (provided locally) if desired.

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Nominal	3/4" Bolt
6 Inch	9 Inch
8 Inch	11 Inch
10 Inch	13 Inch

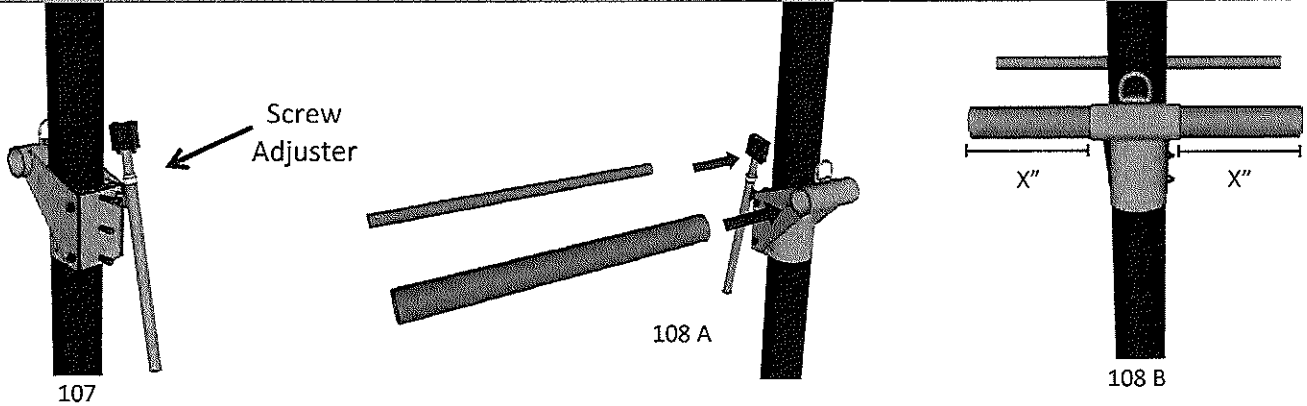
Use hardware labeled **STEP 1** in the Bolt Kit

**105:** While holding the U Bracket around the pole, insert 2 of the 3/4" bolts (see table above for length) through the holes in the back of the U bracket and through the holes on the Back Plate with 3/4" flat washers and 3/4" flange nuts, but do not tighten.

**106:** Insert three 3/4" x 3" set bolts in the back plate, but do not tighten if leaving chain fall hoist connected.

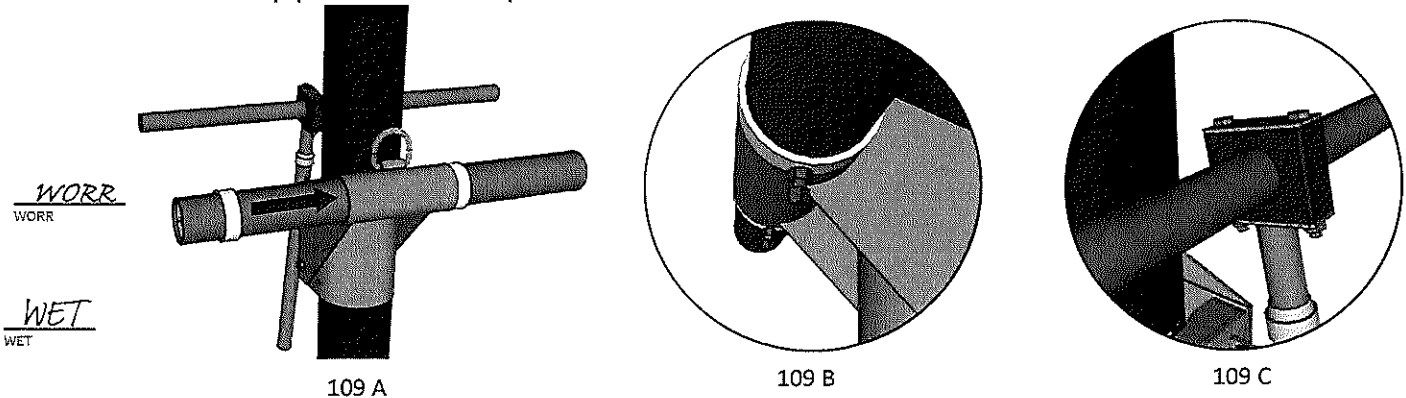
Note: If installing multiple mounts with a single hoist, bolt the pole cap on the pole at the desired working height. Tighten 3/4" bolts and 3/4" set screws. Assemble rack, rails and modules. Then, move lifting assembly and hoist to pole when ready to lift. Attach to pole cap and loosen bolts. Continue with raising the array for wiring or completing the installation.

Use hardware labeled **STEP 2** in the Bolt Kit



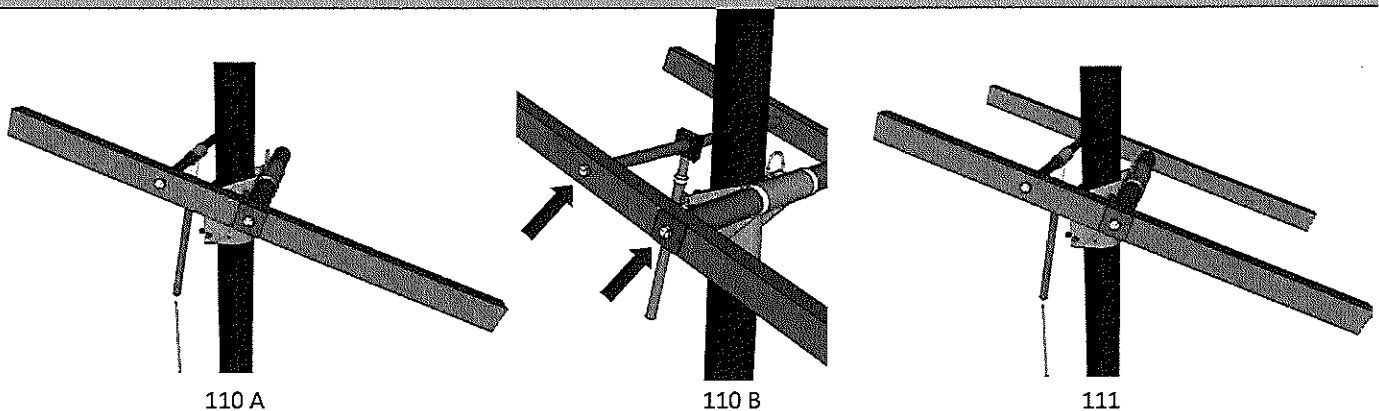
**107:** Attach the Screw Adjuster to the tab on the Back Plate with the 1/2" x 1 1/2" bolt, 1/2" flat washers, and 1/2" flange nut. Make sure the bolt is snug tight, but do not over-tighten to allow for some movement of the adjuster tab.

**108:** Slide the 2" pipe through the adjuster handle pipe clamp & slide the 4.5" pipe through the U Bracket sleeve. Center pipes so there is equal distance on either side of the sleeve.



**109:** Slide collars on 4.5" pipe and tighten 1/2" x 1" square head set bolts to 45 ft-lbs. Hold collar firmly against the sleeve when tightening. Insert 1/2" x 4 3/4" bolts in the adjuster handle pipe clamp around the 2" pipe and tighten to 20 ft-lbs.

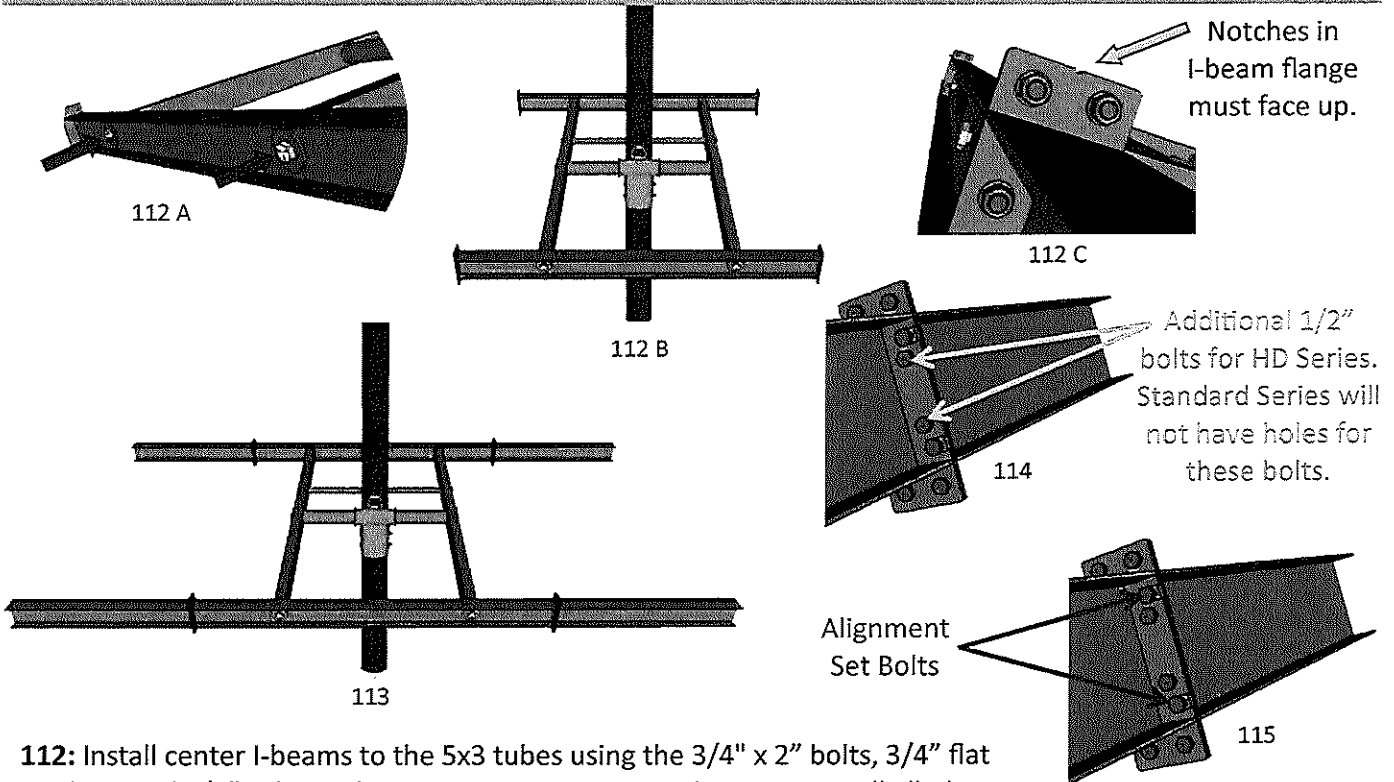
Use hardware labeled **STEP 3** in the Bolt Kit



**110:** Attach the 5x3 rectangular tubes to the 4.5" pipe using the 3/4" x 5" bolts, 5"x5" square washers and 3/4" split washers. Attach the tubes to the 2" pipe using the 1/2" x 4 1/2" bolts, 1/2" flat washers and 1/2" split washers.

**111:** Install the remaining 5x3 rectangular tube. Tighten all four bolts, but leave loose enough to allow for some play when installing I-beams. Adjust as necessary to level the mount.

Use hardware labeled **STEP 4** in the Bolt Kit



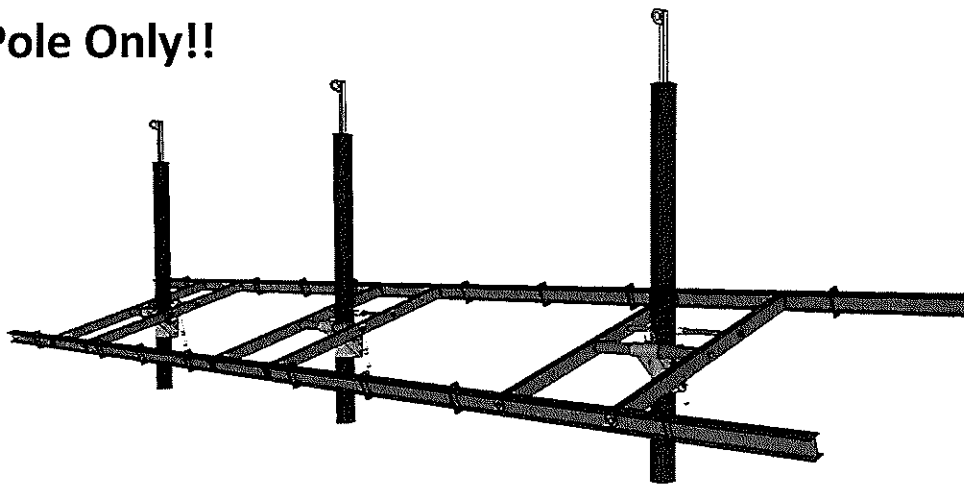
**112:** Install center I-beams to the 5x3 tubes using the 3/4" x 2" bolts, 3/4" flat washers and 3/4" split washers. **DO NOT TIGHTEN** at this step. Install all I-beams with notches in the flange facing up.

**113:** Attach the two wing I-beams on the ends of the center I-beam using the 1/2" x 1 1/4" bolts and 1/2" flange nuts.

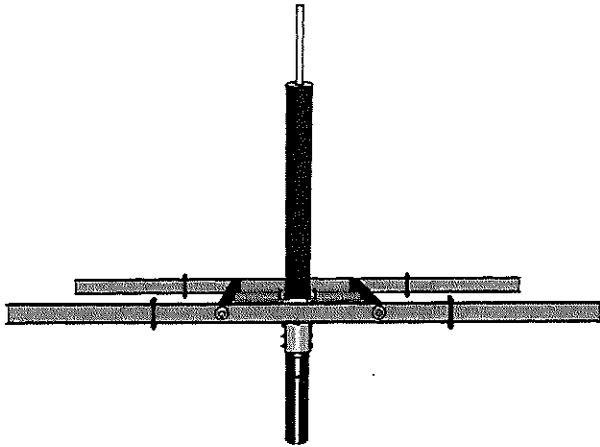
**114:** There are four bolts per wing on the standard series and eight bolts per wing on the heavy duty (HD) Series. The Extra Heavy Duty (XHD) Series utilizes four of the 3/4" x 2" bolts per wing instead.

**115:** The alignment set bolts may be used to align the Center I-Beams to the Wing I-Beams, if necessary. Once I-beams are level, make sure all alignment set screws are touching the plate of the wing I-Beam and tighten the 1/2" bolts to 45 ft-lbs.

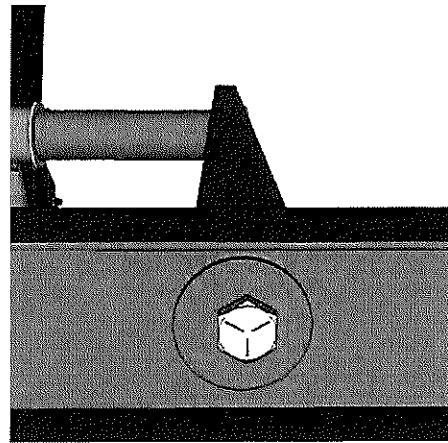
## Multi-Pole Only!!



Multi-pole: If installing a multi-pole, splice center beam sections together and splice wings on the ends. Use the same hardware and torque values listed in 114 and 115 above. In addition, use hardware labeled "Splice Bolt Kits" and "Alignment Set Bolt Kits" located in the Bolt Kit.

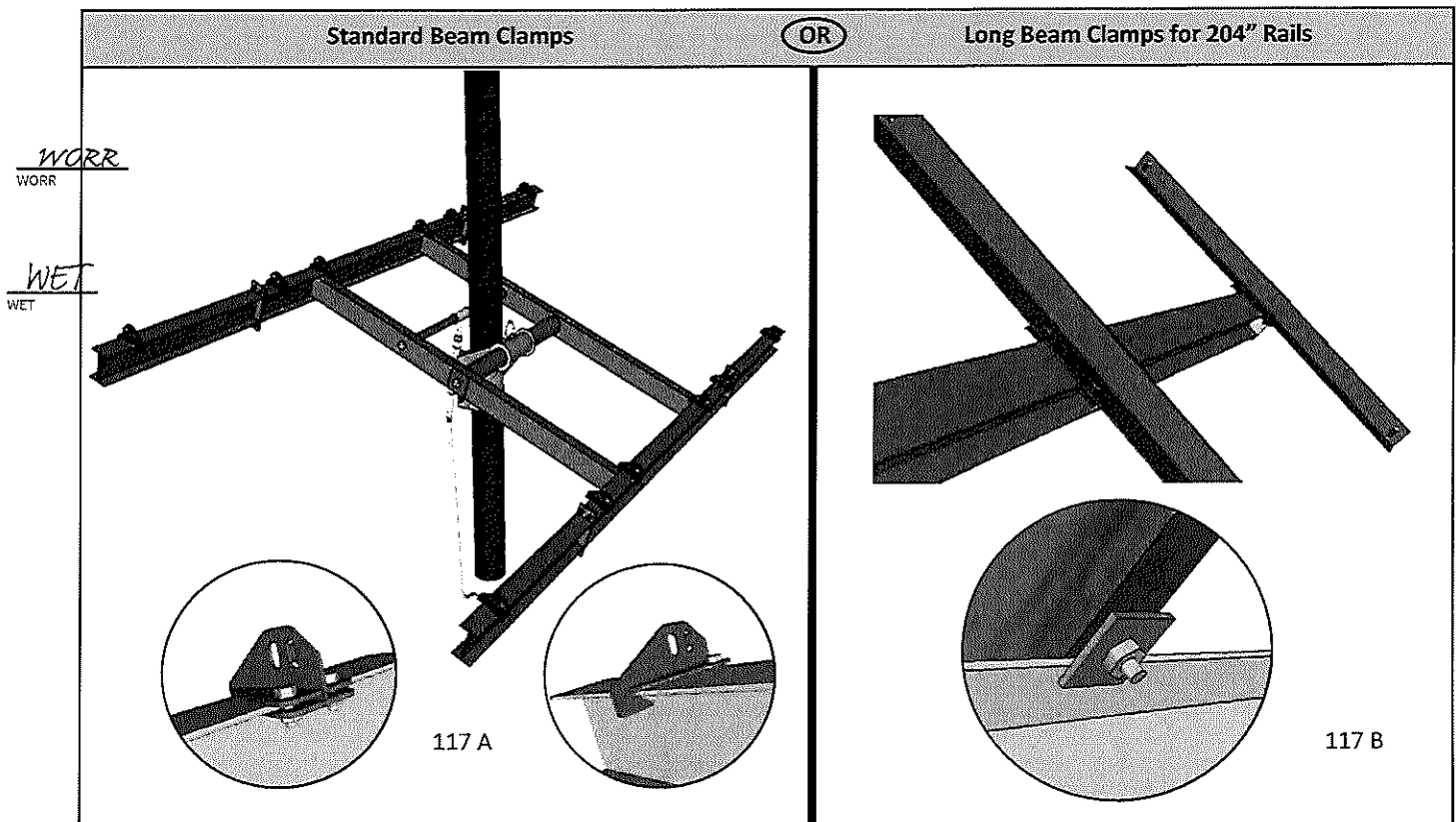


116 A



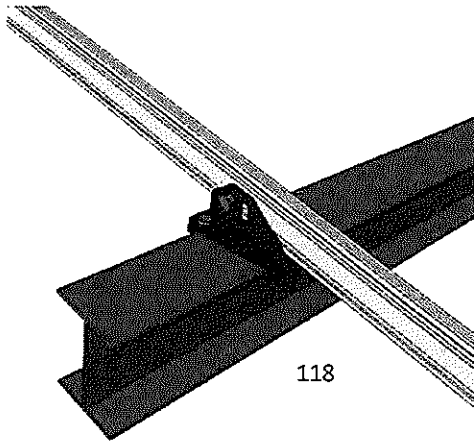
116 B

**116:** Standing on the North side of the array with the 5x3 tube to center I-Beam bolts started but not tightened, sight the beams to ensure they are parallel. If not, twist the array until they are. Then tighten the 3/4" bolts between the 4.5" Pipe and 5x3 tubes to 100 ft-lbs. Tighten then 3/4" bolts between the 5x3 tubes and center I-Beams to 100 ft-lbs.

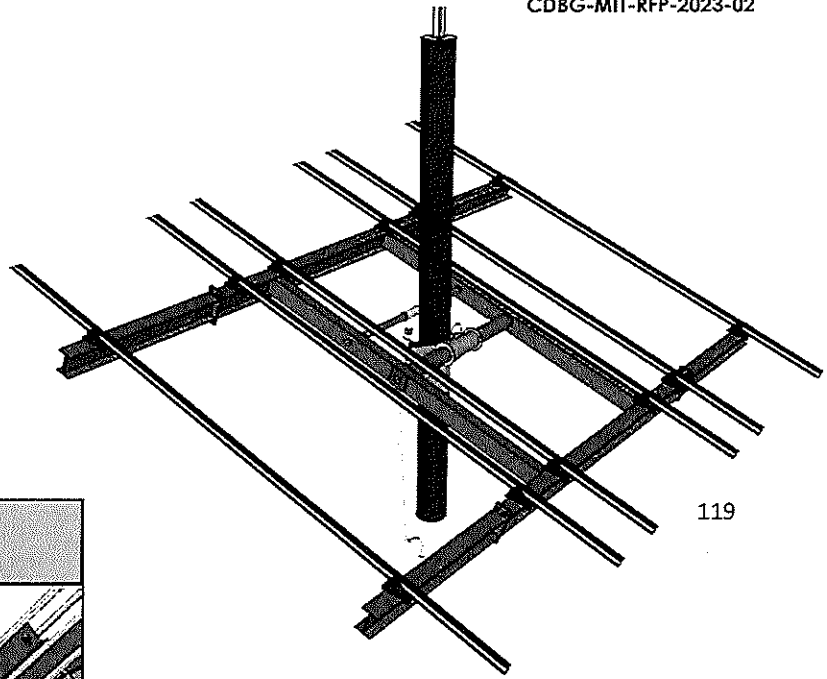


**117:** Plan the layout of your rails according to your module manufacturer's recommendation. Install the Beam Clamps on the I-beam using the 3/8" x 1 1/4" carriage bolts and 3/8" flange nuts. Tighten to 20 ft-lbs. Mounts with 204" rails require a 4 ft. long angle-shaped clamp to give extra support to the span and cantilever. Attach angle using the square plates provided and the 3/8" x 1 1/4" carriage bolts and 3/8" flange nuts.

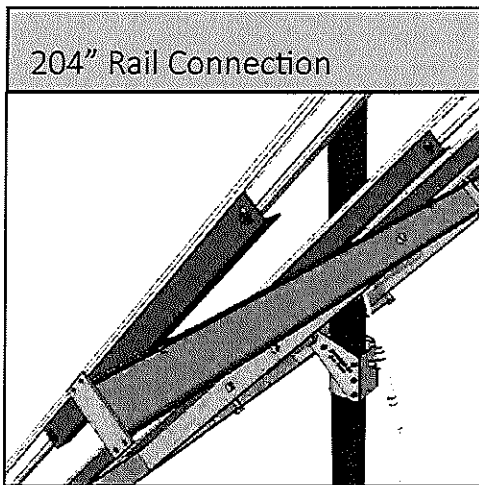
\*For standard single pole array configurations, see last page.



118



119



204' Rail Connection

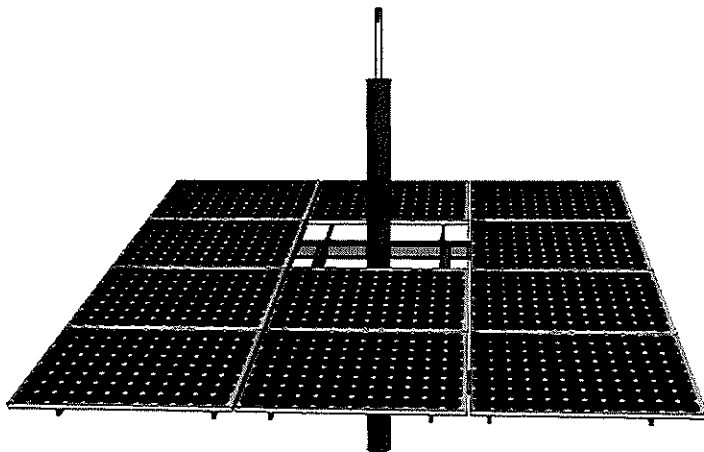
**118:** Install the Mounting Rail into the beam clamps slot as per Mounting Rail instructions. Use 3/8" x 1" stainless steel bolts and 3/8" serrated flange nuts.

**119:** Center rails over I-beams, keeping equal length of rail off the end of each beam. Tighten to 17 ft-lbs.

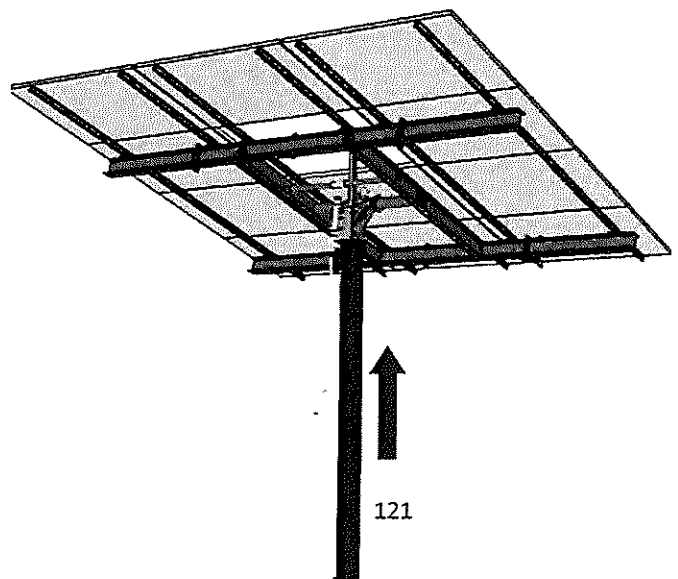
Install solar modules as per mounting rail and module manufacturer instructions.

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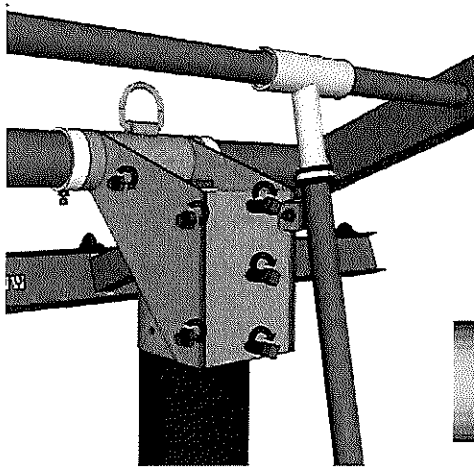
120



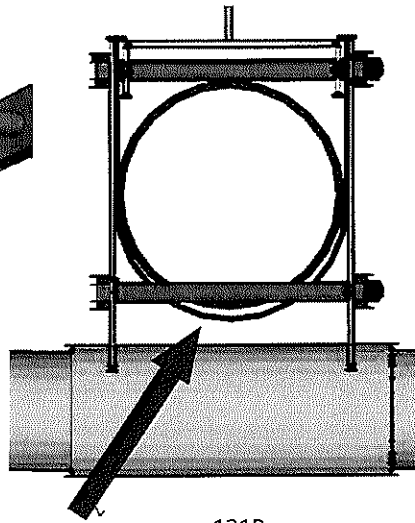
121

**120:** Leave out the appropriate module(s) to allow for the 8" pipe. It is ok to install the top and bottom modules of the center row(s) with just 2 clamps until the array is lifted to the top. Raise and or tilt the array to facilitate module installation and/or module wiring and wire management as needed.

**121:** When wiring is completed, raise the array to the top of the pole.



121A



121B

**NO GAP!!**



122

\*Remove the gap by tightening the square set bolts until the front of the U-Bracket is snug against pipe, then make 3 more full rotations of the bolt on a single pole or one full rotation on a multi-pole.

121A: With the mount hanging free on the hoist, FIRST tighten the square-headed set bolts in the back mounting plate. Remove the gap by tightening the set bolts until the front of the U-Bracket is snug against pipe, then make one more full rotation of the bolt. SECOND, tighten both long 3/4" bolts in back mounting plate to 100 ft-lbs. Insert the last long 3/4" bolt over the top of the pole with the 3/4" flat washers and 3/4" nut. Tighten to 20 ft-lbs.

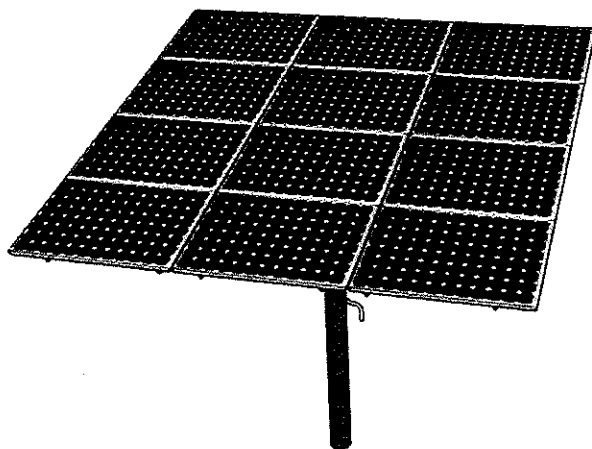
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122: Remove the chain hoist and lifting bracket and place the 2" square cap in place. Add spin prevention bolts as needed.

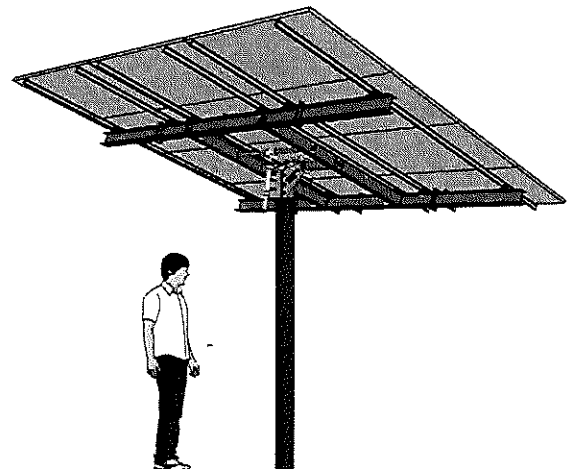
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## SINGLE POLE SPIN PREVENTION

For 12 panel mounts & larger, please see the Spin Prevention Addendum at the end of this manual. This provides a field-drilled bolt-through option for extra security of the U-bracket to the support pipe.



123



124

123: Place the final module in the empty space. It may be advantageous to fully extend the Screw Adjuster to make this easier.

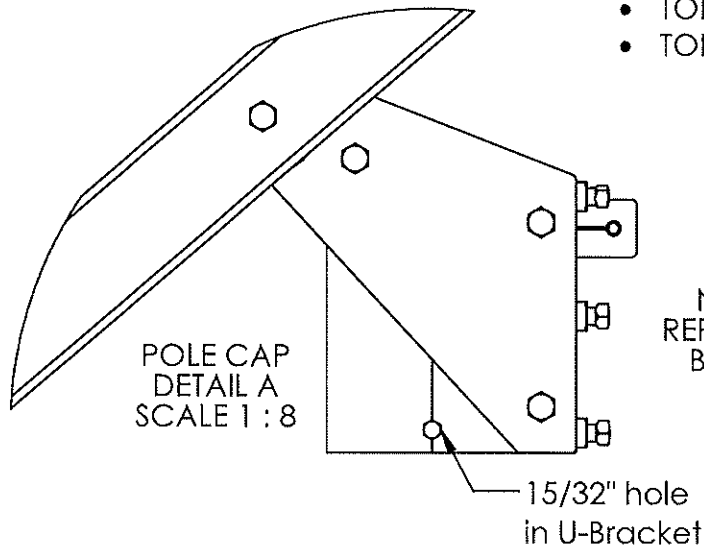
124: Attach adjuster handle using the set screw. You may cut the handle to length depending on pole height and site conditions. We recommend occasional greasing of the threaded rod. Using an angle finder, adjust array to proper tilt.



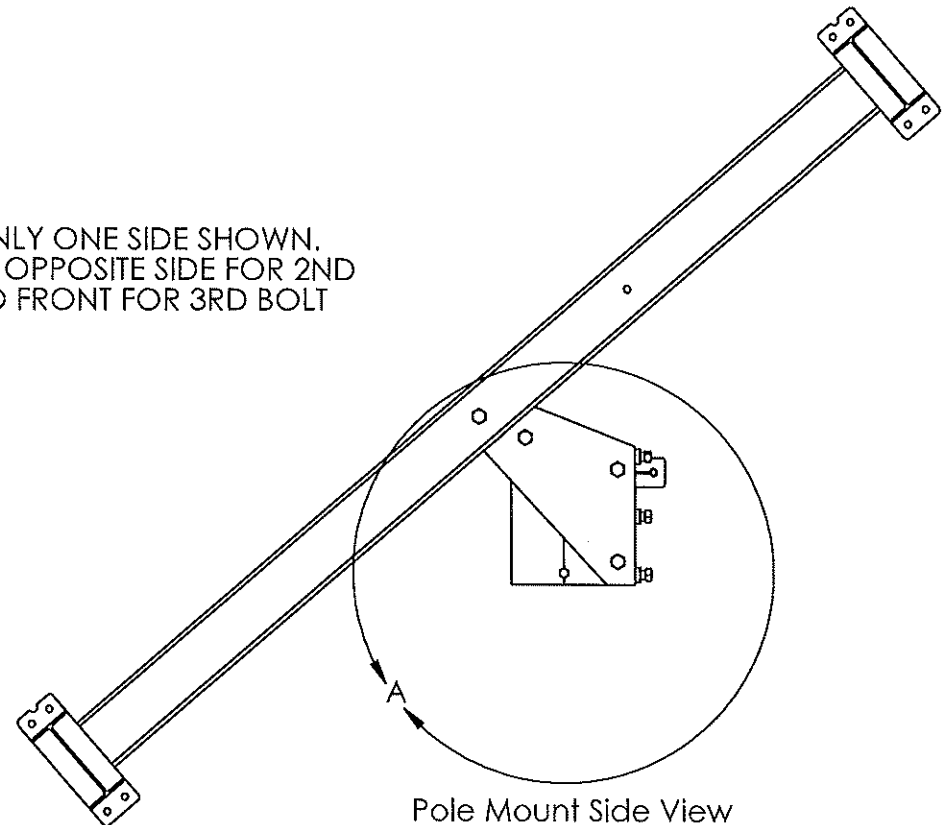
## SPIN PREVENTION ADDENDUM

Through-bolts are required for the following sizes:

- TOP-12 or larger, 60C & 72C = 2 BOLTS
- TOP-15-TALL-72C = 3 BOLTS
- TOP-20-TALL-60C = 3 BOLTS



NOTE: ONLY ONE SIDE SHOWN.  
REPEAT ON OPPOSITE SIDE FOR 2ND  
BOLT AND FRONT FOR 3RD BOLT



Pole Mount Side View

Note: Adjuster and Support Pole Omitted for Clarity

### Instructions:

This is the final step in the installation, to be done once array is installed, hoisted into place, and the set bolts are tightened. Use the drill bit provided by MT Solar to drill through the existing 15/32" holes in the U-bracket and through the support pipe on both sides and front. Thread in the 1/2" x 1" bolt through the pole cap and support pipe.



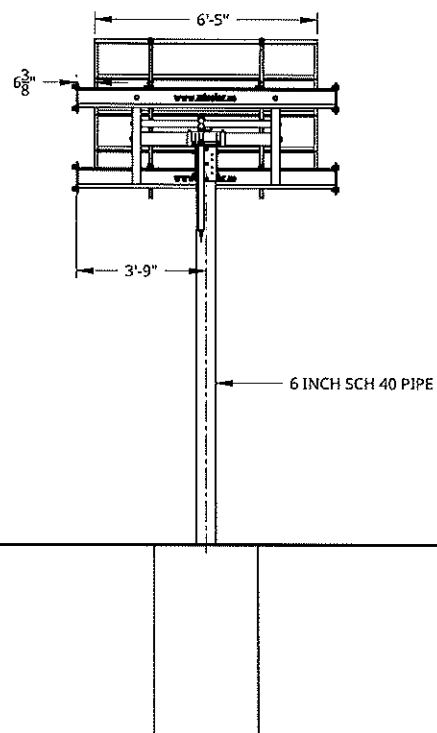
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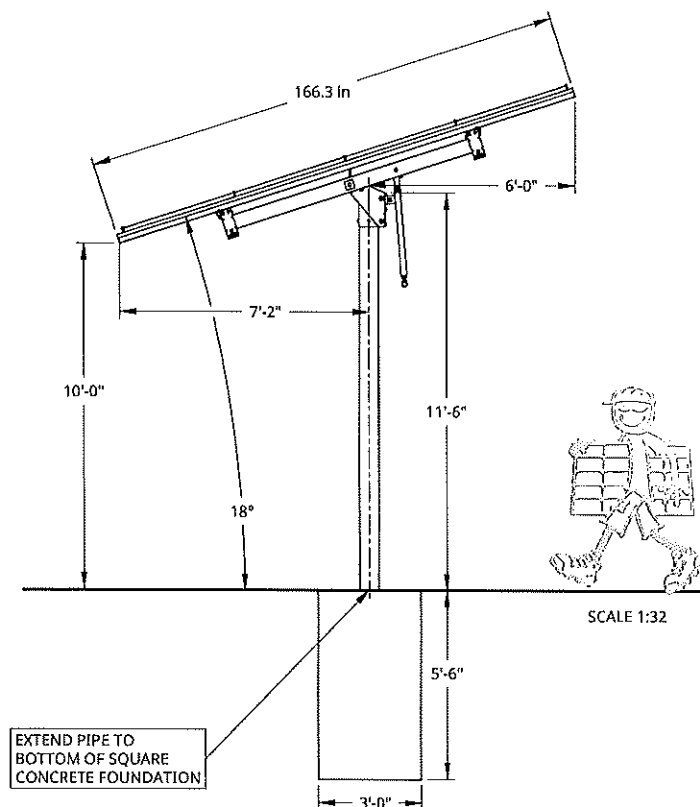
	NAME	DATE	TITLE:	SIZE	DWG. NO.	REV
DRAWN	TJ	3/30/17		A	High Tilt/High Wind Additional Bolt Detail	
CHECKED						
ENG APPR.						
MFG APPR.						

SCALE: 1:16

SHEET 1 OF 1




SCALE 1:32



SCALE 1:32

ITEM	QUANTITY	NAME	MASS
1	2	BEAM-SD-CENTER-90-INCHES	74.9 LB
2	2	TUBE-SD-3X5-90IN	46.4 LB
3	1	PIPE-SD-2IN	14 LB
4	1	PIPE-SD-4IN	41.8 LB
5	2	LOCK-COLLAR-4	1.2 LB
6	1	POLECAP-6	34.8 LB
7	1	BACKPLATE-6	13 LB
8	1	LIFT-INSERT-6	5.6 LB
9	1	ADJUSTER-SCREW	11.9 LB
10	2	BEAM-SPLICE-BOLT-KIT-SD	1.7 LB
11	1	TAMARACK-GROUND-LUG	0.1 LB
12	10	TAMARACK-50/50-CLAMP	0.1 LB
13	4	TAMARACK-RAIL-ADAPTER-WITH-BOLT	0.1 LB
14	2	TAMARACK-3.1-RAIL-CUT-166.3-INCHES	12.9 LB
15	4	BEAM-CLAMP-WITH-BOLTS	1.2 LB
16	1	SPIN PREVENTION KIT	0.3 LB
17	1	BOLT-KIT-6-TOP-BEAM	N/A
18	1	PALLET-PACKAGING-MATERIALS	N/A

COMPANY NAME <b>TWENDE SOLAR  </b>		SKU <b>1P-0-6TOP-SD-0-4X1-R</b>	
MODULE QUANTITY: 4 MODULE WIDTH: 39.1 INCHES MODULE LENGTH: 77 INCHES MAXIMUM TILT: 18° MINIMUM CLEARANCE: 10'		WIND SPEED: 200 MPH SNOW LOAD: 0 PSF EXPOSURE CATEGORY: C SOIL TYPE: CLAY, SANDY CLAY POLE QUANTITY: 1 POLE RATING: 6" SCHEDULE 40	
PUERTO RICO COFFEE AGRIVOLTAICS			
<div> <div> <div>C</div> <div>SCALE</div> </div> <div> <div>Not to Scale</div> </div> </div>		<div> <div>DATE</div> <div>07/13/2022</div> </div>	

## Photovoltaic Systems Design Narrative



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### Type A: Standard Rooftop Mounted Photovoltaic System

Designs will consist on a grid-tied photovoltaic systems with battery backup with power capacities of 3 kWdc or 4.3 kWdc minimum and backup energy capacities of 9 kWh or 12 kWh minimum to provide for at least 20 hours of dwelling unit autonomy on refrigerator, lights, receptacle outlet medical devices, water cistern pump and critical loads. All photovoltaic arrays will have at least 75% solar access. Tools for the design process include drone photogrammetry, virtual far and near shading analysis including all existing conditions (existing solar water heaters, air conditioning units, antennas, conduits, existing or new water cistern tanks, etc.), all roof architectural elements and all nearby elements such as structures, mountains, and trees. All projects will be designed using photogrammetry-based PV Systems 3D modeling. All projects will have a design database with hundreds of aerial photos and a tridimensional model available for record as well as design aid.

Type A installations will have south-facing arrays with aluminum photovoltaic racking systems supporting up to 10 modules with 5 to 10 degrees of tilt attached to concrete roof with spans allowing for the required zone wind resistance. All PV racking materials will be aluminum. All electric conduits will be PVC Schedule 40 with conduit supports or using existing spare embedded conduits; EMT conduits will be used on interior spaces or where exposed to physical damage. Balance of Systems will be installed away from direct sunlight and will be NEMA rated for exterior installation. This type of installation will include the required rapid-shutdown devices for code compliance.

#### Type B: Ballasted Ground-mounted Photovoltaic System

Type B installations will have south-facing arrays with aluminum photovoltaic racking systems supporting up to 10 modules with 5 degrees of tilt attached to ground with spans allowing for the required zone wind resistance. All PV racking materials will be aluminum and concrete blocks. All electric conduits will be PVC Schedule 40 with conduit supports or using existing spare embedded conduits; EMT conduits will be used on interior spaces or where exposed to physical damage. All underground conduits will be designed to comply with the minimum cover requirements. Balance of Systems will be installed away from direct sunlight and will be NEMA rated for exterior installation.

WORR  
WORR

WET  
WET



Civil Engineers & Structural Consultants

CJ Quiñones Engineering, P.S.C

www.cjqengineering.com  
info: cquinones@cjqengineering.com  
phone: 787-529-4903

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**RE: Structural Narrative**

The Proposed Project consists of a Solar Racking System that will be installed on different sites with two capacity: 3kW and 4kW. For the different sites, the solar system is proposed to be on a Rooftop Mounted, Ballasted Ground Mounted, Light frame structures attached to housing or stand-alone, and Solar Pole system.

These sites are located in a Hurricane Region. High winds are expected to affect proposed Solar Mount System during hurricane season. The structural design for this solar racking will follow PR Building Code (IBC 2018) and Manufacturer recommendations for construct a resilience Solar System. For Wind Loads and Seismic Loads will be calculated using code requirements by ASCE 7-16.

WRR  
WRR

For solar structure that require foundation, a soil exploration shall be performed to verified soil condition and evaluation soil parameter design. Per data from USGS Geologic Map, the soil at site will following by Gravelly Sand with medium to very dense conditions. Because of these conditions and structural analysis from the proposed Solar Mount system design, a spread footing support and/or Ballast Concrete foundation is needed to transfer design loads to existing soil and resist uplift load.

WET  
WET

For the Solar Mount Systems, will be fabricated on Aluminum or Stainless-Steel racking system with structural profile, and with hardware, bolts, nuts, and washer SAE J429 GR5. The racking will consist of 6, 8 or 10 solar modules arrange with two pt more supports post. The Rooftop Mounted system consists of aluminum rails attached to the roof with aluminum L-foot and anchor bolts. Ballasted system could be installed on Rooftop or ground level. All components are aluminum, concrete ballast block and a few anchors point. The proposed Light frame structure (attached or stand-alone) consists of a structural frame with columns and beams. On top of the main structural members, aluminum rail will be attached to beams, an solar module will be attached with hold down clamps (3 rail per module). The Solar pole structure will consist of a mono post column with a structure frame on top with aluminum rails. All racking system will have a structural design based on Racking manufacturer members specification, technical data, and wind tunnel testing. The PV modules will be considered with the manufacturer installation instruction to install clamping zone to ensure better resistance to up and down wind load pressure. AISI & AISC standard are considered on the fabrications and design of all steel component and connections.

For the electrical equipment including Solar Inverters, transformers and disconnect panels, can be install at the structural members of the Solar Mount Racking and/or over a concrete pad, if considered for large equipment.

The Structural Design Loads will be calculated using International Building Code 2018 and American Society of Civil Engineer Code 7-16.

Dead Load:

Total Weight = 2.30 psf

Live Load:

N/A

Snow Load:

N/A

Wind Design Data:

Wind Speed = 175 mph

Component & Cladding

Exposure = C

Seismic Design Data:

Site Class = C

Important Factor = 1.0

Spectral Response Accelerations:

Sd= 0.98

S1= 0.39

WORR  
WORR

WET  
WET

powered by

**Q.ANTUM DUO Z**

# Q.PEAK DUO XL-G10.3 / BFG 475-490

BIFACIAL DOUBLE GLASS MODULE  
WITH EXCELLENT RELIABILITY  
AND ADDITIONAL YIELD



Quality  
Controlled PV

www.tuv.com  
ID 1111232515



## BIFACIAL ENERGY YIELD GAIN OF UP TO 20%

Bifacial Q.ANTUM solar cells with zero gap cell layout make efficient use of light shining on the module rear-side for radically improved LCOE.



## LOW ELECTRICITY GENERATION COSTS

Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.4 %.



## INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



## ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID and Anti PID Technology<sup>1</sup>, Hot-Spot Protect and Traceable Quality Tra.Q<sup>TM</sup>.



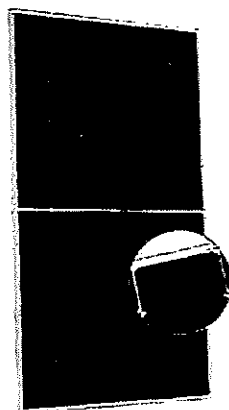
## FRAME FOR VERSATILE MOUNTING OPTIONS

High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).

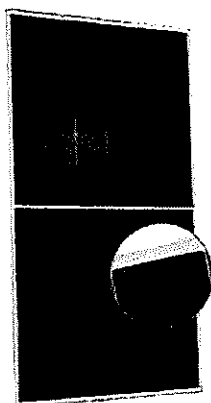


## A RELIABLE INVESTMENT

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty<sup>2</sup>.



6 BUSBAR  
CELL TECHNOLOGY



12 BUSBAR  
CELL TECHNOLOGY

## THE IDEAL SOLUTION FOR:



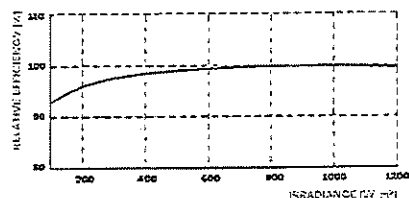
Ground-mounted  
solar power plants

<sup>1</sup> APT test conditions according to IEC/TS 62804-1:2015 method B (~1500V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)  
<sup>2</sup> See data sheet on rear for further information.

Figure 1: Typical layout of a 1000-line 19-inch rack. The diagram shows a rack with two main sections, DETAIL A and DETAIL B. DETAIL A shows a 19-inch wide section with a 1.25-inch wide component, a 0.50-inch wide component, and a 0.50-inch wide component. DETAIL B shows a 19-inch wide section with a 1.25-inch wide component, a 0.50-inch wide component, and a 0.50-inch wide component. The rack is labeled with dimensions and component types.

POWER CLASS			475	480	485	490				
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> AND BSTC <sup>1</sup> (POWER TOLERANCE ±5W / -0W)										
Minimum				3STC*	BSTC*	BSTC*	BSTC*			
	Power at MPP <sup>1</sup>	P <sub>MPP</sub> [W]	475	519.6	480	525.0	485	530.5	490	536.0
	Short Circuit Current <sup>1</sup>	I <sub>SC</sub> [A]	11.08	12.12	11.12	12.17	11.16	12.21	11.20	12.26
	Open Circuit Voltage <sup>1</sup>	V <sub>OC</sub> [V]	53.15	53.34	53.39	53.58	53.63	53.82	53.86	54.06
	Current at MPP	I <sub>MPP</sub> [A]	10.55	11.54	10.59	11.58	10.63	11.63	10.67	11.67
	Voltage at MPP	V <sub>MPP</sub> [V]	45.03	45.02	45.33	45.32	45.63	45.62	45.93	45.92
	η	[%]	≥20.5	≥22.4	≥20.7	≥22.7	≥20.9	≥22.9	≥21.2	≥23.1
Bifaciality of P <sub>MPP</sub> and I <sub>SC</sub> 70% ±5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2										
* Measurement tolerances P <sub>MPP</sub> ±3%, I <sub>SC</sub> , V <sub>OC</sub> ±5% at STC: 1000 W/m <sup>2</sup> ; * at BSTC: 1000 W/m <sup>2</sup> + φ × 135 W/m <sup>2</sup> , φ = 70% ±5%, 25 ±2°C, AM 1.5 according to IEC 60904-3										
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>										
Minimum	Power at MPP	P <sub>MPP</sub> [W]	357.6	361.4	365.1	368.9				
	Short Circuit Current	I <sub>SC</sub> [A]	8.92	8.96	8.99	9.02				
	Open Circuit Voltage	V <sub>OC</sub> [V]	50.27	50.49	50.72	50.95				
	Current at MPP	I <sub>MPP</sub> [A]	8.30	8.34	8.37	8.40				
	Voltage at MPP	V <sub>MPP</sub> [V]	43.06	43.35	43.63	43.92				

### PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000W/m<sup>2</sup>)








Temperature Coefficient of $I_{sc}$	$\alpha$	[%/K]	+0.04	Temperature Coefficient of $V_{oc}$	$\beta$	[%/K]	-0.27
Temperature Coefficient of $R_{sh}$	$\gamma$	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]	108±5.4 (42±3°C)

Maximum System Voltage V <sub>sys</sub>	[V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI / UL 61730	TYPE 29 <sup>c</sup>
Max. Design Load Push/Pull <sup>b</sup>	[lbs/ft <sup>2</sup> ]	75 (3600Pa)/33 (1600Pa)	Permitted Module Temperature on Continuous Duty	-40°F up to +185°F (-40°C up to +85°C)
Max. Test Load, Push/Pull <sup>b</sup>	[lbs/ft <sup>2</sup> ]	113 (5400Pa)/50 (2400Pa)		

<sup>a</sup> See Installation Manual

<sup>c</sup> New Type is similar to Type 3 but with metallic frame

## PACKAGING INFORMATION

							
Horizontal packaging	89.4 in 2270 mm	43.1 in 1095 mm	47.6 in 1210 mm	1975 lbs 896 kg	20 pallets	20 pallets	29 modules
Vertical packaging	90.8 in 2306 mm	45.3 in 1150 mm	47.4 in 1205 mm	2013 lbs 913 kg	20 pallets	20 pallets	30 modules

400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL [inquiry@us.q-cells.com](mailto:inquiry@us.q-cells.com) | WEB [www.q-cells.us](http://www.q-cells.us)

Specifications subject to technical changes © Q CELLS Q PEAK DUO XL-G10 3/BFG-475-490\_2021-12\_Rev04\_NA





## GOBIERNO DE PUERTO RICO

Departamento de Desarrollo Económico y Comercio  
Oficina de Gerencia de Permisos

Attachment B - Scope of Work  
PV Systems, Water Storage System Design,  
Acquisition, and Installation  
Número de Caso:  
CDBG-MIT-BFP-2023-02  
2023-CER-013344

### Certificación de Equipos de Energía Renovable

#### Datos de la Solicitud

De acuerdo a la información suministrada se solicita la certificación para equipo(s) de energía renovable Comercial-Privado, en territorio del Estado Libre Asociado de Puerto Rico, según indicado(s) a continuación:

Solicitante: Angel R Zayas

Correo Electrónico: zcentenor@azeng.net

Compañía: AZ Engineering LLC

#### Datos de Equipo Certificado

Tipo de Equipo(s): Módulo Fotovoltaico

Clasificación: Equipo Nuevo

MARCA	MODELO	CERTIFICACIONES	ESPECIFICACIONES
Hanwha Qcells	Q.PEAK DUO XL-G10.3/BFG 480	Certificación de Potencia: IEC 61730 Núm. Certificación: PV60149904 Laboratorio: TUVPTL Certificación de Seguridad: UL 61730 Núm. Certificación: 80045987 Laboratorio: CSA	Potencia Nominal: 480Watts 10 años (Potencia): 93.95% 20 años (Potencia): 89.45% Dimensiones: 87.2in x 41.1in x 1.38in Garantía Manufactura: 12 año(s)
Hanwha Qcells	Q.PEAK DUO XL-G10.3/BFG 485	Certificación de Potencia: IEC 61730 Núm. Certificación: PV60149904 Laboratorio: TUVPTL Certificación de Seguridad: UL 61730 Núm. Certificación: 80045987 Laboratorio: CSA	Potencia Nominal: 485Watts 10 años (Potencia): 93.95% 20 años (Potencia): 89.45% Dimensiones: 87.2in x 41.1in x 1.38in Garantía Manufactura: 12 año(s)
<del>WORR</del> Hanwha Qcells	Q.PEAK DUO XL-G10.3/BFG 475	Certificación de Potencia: IEC 61730 Núm. Certificación: PV60149904 Laboratorio: TUVPTL Certificación de Seguridad: UL 61730 Núm. Certificación: 80045987 Laboratorio: CSA	Potencia Nominal: 475Watts 10 años (Potencia): 93.95% 20 años (Potencia): 89.45% Dimensiones: 87.2in x 41.1in x 1.38in Garantía Manufactura: 12 año(s)
<del>NET</del> Hanwha Qcells	Q.PEAK DUO XL-G10.3/BFG 490	Certificación de Potencia: IEC 61730 Núm. Certificación: PV60149904 Laboratorio: TUVPTL Certificación de Seguridad: UL 61730 Núm. Certificación: 80045987 Laboratorio: CSA	Potencia Nominal: 490Watts 10 años (Potencia): 93.95% 20 años (Potencia): 89.45% Dimensiones: 87.2in x 41.1in x 1.38in Garantía Manufactura: 12 año(s)

#### División de Edificabilidad

Se recomienda la instalación del equipo de fuente de energía renovable sometido ante la OGPe, a tenor con el Reglamento para la Certificación de Sistemas de Energía Renovable y el Reglamento Conjunto para Obras de Construcción y Usos de Terrenos, vigentes.

#### Condiciones Especiales

Bajo ninguna circunstancia, deberá interpretar que esta certificación implique la aprobación de instalación de equipos en un proyecto de construcción, ni que se autorice iniciar obras de construcción de clase alguna, sin el trámite del correspondientes permiso de construcción.

#### Firmas / Sellos

Fecha de Expedición:

12/APR/2023





GOBIERNO DE PUERTO RICO

Departamento de Desarrollo Económico y Comercio  
Oficina de Gerencia de Permisos

Attachment B - Scope of Work  
PV Systems, Water Storage System Design,  
Acquisition, and Installation Services  
Número de Caso:  
CDBG-MU-RFP-2023-02  
2023-CER-013344

## Certificación de Equipos de Energía Renovable

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Lcdo. Félix E. Rivera Torres  
Secretario Auxiliar  
Departamento de Desarrollo Económico y Comercio de Puerto Rico  
Oficina de Gerencia de Permisos

**Lcdo. Félix E. Rivera Torres**  
**Secretario Auxiliar de la OGPe**

WRR  
WRR

WET  
WET



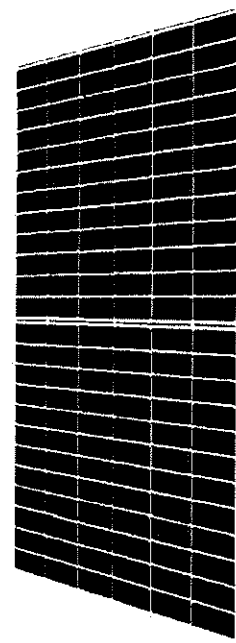


## HiKu

SUPER HIGH POWER MONO PERC MODULE

430 W ~ 455 W

CS3W-430 | 435 | 440 | 445 | 450 | 455MS



### MORE POWER

WOTR  
WORR



26 % more power than  
conventional modules

WET  
WET



Up to 4.5 % lower LCOE  
Up to 2.7 % lower system cost



Low NMOT:  $42 \pm 3$  °C  
Low temperature coefficient (Pmax):  
-0.35 % / °C



Better shading tolerance

### MORE RELIABLE



Lower internal current,  
lower hot spot temperature



Minimizes micro-crack impacts



Heavy snow load up to 5400 Pa,  
wind load up to 3600 Pa\*



linear power output warranty\*



enhanced product warranty on materials  
and workmanship\*

\*According to the applicable Canadian Solar Limited Warranty Statement.

### MANAGEMENT SYSTEM CERTIFICATES\*

ISO 9001:2015 / Quality management system  
ISO 14001:2015 / Standards for environmental management system  
OHSAS 18001:2007 / International standards for occupational health & safety

### PRODUCT CERTIFICATES\*

IEC 61215 / IEC 61730: VDE / CE / MCS / INMETRO  
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS  
UNI 9177 Reaction to Fire: Class 1 / Take-e-way



\* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 40 GW deployed around the world since 2001.

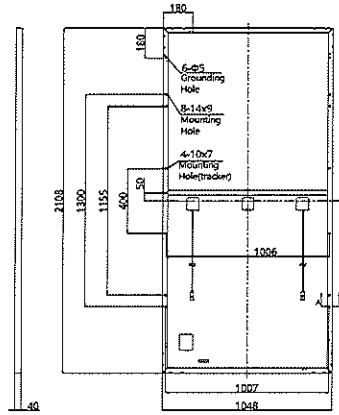
\* For detail information, please refer to Installation Manual.

CANADIAN SOLAR INC.

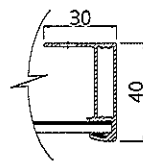
545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, [www.canadiansolar.com](http://www.canadiansolar.com), [support@canadiansolar.com](mailto:support@canadiansolar.com)

## ENGINEERING DRAWING (mm)

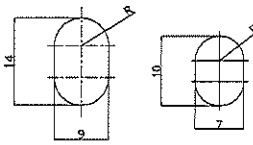
Rear View



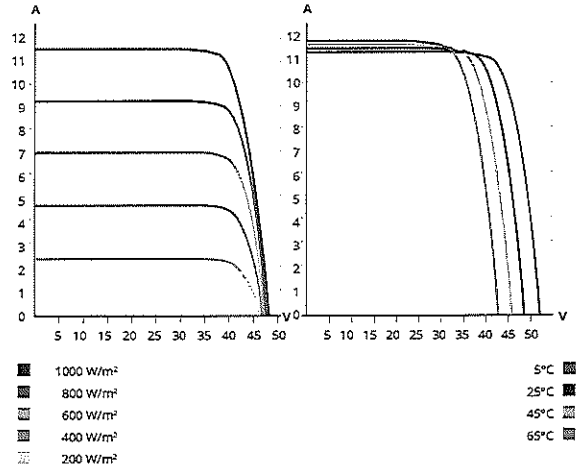
Frame Cross Section A-A



Mounting Hole



## CS3W-435MS / I-V CURVES



## ELECTRICAL DATA | STC\*

CS3W	430MS	435MS	440MS	445MS	450MS	455MS
Nominal Max. Power (Pmax)	430 W	435 W	440 W	445 W	450 W	455 W
Opt. Operating Voltage (Vmp)	40.3 V	40.5 V	40.7 V	40.9 V	41.1 V	41.3 V
Opt. Operating Current (Imp)	10.68 A	10.75 A	10.82 A	10.89 A	10.96 A	11.02 A
Open Circuit Voltage (Voc)	48.3 V	48.5 V	48.7 V	48.9 V	49.1 V	49.3 V
Short Circuit Current (Isc)	11.37 A	11.42 A	11.48 A	11.54 A	11.60 A	11.66 A
Module Efficiency	19.5%	19.7%	19.9%	20.1%	20.4%	20.6%
Operating Temperature	-40°C ~ +85°C					
Max. System Voltage	1500V (IEC/UL) or 1000V (IEC/UL)					
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)					
Max. Series Fuse Rating	20 A					
Application Classification	Class A					
Power Tolerance	0 ~ + 10 W					

\* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

## ELECTRICAL DATA | NMOT\*

CS3W	430MS	435MS	440MS	445MS	450MS	455MS
Nominal Max. Power (Pmax)	321 W	325 W	328 W	332 W	336 W	339 W
Opt. Operating Voltage (Vmp)	37.6 V	37.8 V	37.9 V	38.1 V	38.3 V	38.5 V
Opt. Operating Current (Imp)	8.54 A	8.59 A	8.65 A	8.71 A	8.76 A	8.82 A
Open Circuit Voltage (Voc)	45.4 V	45.6 V	45.8 V	46.0 V	46.2 V	46.4 V
Short Circuit Current (Isc)	9.17 A	9.21 A	9.26 A	9.31 A	9.36 A	9.41 A

\* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

## MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	144 [2 X (12 X 6)]
Dimensions	2108 X 1048 X 40 mm (83.0 X 41.3 X 1.57 in)
Weight	24.9 kg (54.9 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy, crossbar enhanced
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	Portrait: 500 mm (19.7 in) (+) / 350 mm (13.8 in) (-); landscape: 1400 mm (55.1 in); leap-frog connection: 1670 mm (65.7 in)*
Connector	T4 series or H4 UTX or MC4-EVO2
Per Pallet	27 pieces
Per Container (40' HQ)	594 pieces

\* For detailed information, please contact your local Canadian Solar sales and technical representatives.

## TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.35 % / °C
Temperature Coefficient (Voc)	-0.27 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	42 ± 3°C

## PARTNER SECTION



\* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Canadian Solar Inc. reserves the right to make necessary adjustment to the information described herein at any time without further notice.

Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

## CANADIAN SOLAR INC.

545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, [www.canadiansolar.com](http://www.canadiansolar.com), [support@canadiansolar.com](mailto:support@canadiansolar.com)



## GOBIERNO DE PUERTO RICO

Departamento de Desarrollo Económico y Comercio  
Oficina de Gerencia de Permisos

Attachment B - Scope of Work  
PV Systems, Water Storage System Design,  
Acquisition, and Installation Case:  
CDBG-MJ-RFP-2023-02  
2021-CER-006375

### Certificación de Equipos de Energía Renovable

#### Datos de la Solicitud

De acuerdo a la información suministrada se solicita la certificación para equipo(s) de energía renovable Comercial-Privado, en territorio del Estado Libre Asociado de Puerto Rico, según indicado(s) a continuación:

**Solicitante:** Ismael Diaz

**Correo Electrónico:** ismael.diaz@warren-ecm.com

**Compañía:** WARREN

#### Datos de Equipo Certificado

**Tipo de Equipo(s):** Módulo Fotovoltaico

**Clasificación:** Equipo Existente

MARCA	MODELO	CERTIFICACIONES	ESPECIFICACIONES
Canadian Solar	CS3U-375MS	Certificación de Potencia: IEC 61215 Núm. Certificación: Z2180384937020 Laboratorio: TUVPSG Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 375Watts 10 años (Potencia): 91% 20 años (Potencia): 84% Dimensiones: 6.56 ft. x 3.25 ft Garantía Manufactura: 10 año(s)
Canadian Solar	CS3U-395MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: vde Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 395Watts 10 años (Potencia): 93.13% 20 años (Potencia): 84.2% Dimensiones: 6.5ft x 3.25ft Garantía Manufactura: 10 año(s)
<del>WARREN</del> CANADIAN SOLAR	CS3W-450MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 450Watts 10 años (Potencia): 93.05% 20 años (Potencia): 87.55% Dimensiones: 6.92ft x 3.44FT Garantía Manufactura: 12 año(s)
<del>WEI</del> CANADIAN SOLAR	CS3W-440MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 440Watts 10 años (Potencia): 93.05% 20 años (Potencia): 87.55% Dimensiones: 6.92ft x 3.44FT Garantía Manufactura: 12 año(s)
CANADIAN SOLAR	CS3W-445MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 445Watts 10 años (Potencia): 93.05% 20 años (Potencia): 87.55% Dimensiones: 6.92ft x 3.44FT Garantía Manufactura: 12 año(s)
CANADIAN SOLAR	CS3W-455MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 455Watts 10 años (Potencia): 93.05% 20 años (Potencia): 87.55% Dimensiones: 6.92ft x 3.44FT Garantía Manufactura: 12 año(s)
Canadian Solar	CS3U-385MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 5008436-3972-0002 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 385Watts 10 años (Potencia): 355% 20 años (Potencia): 334% Dimensiones: 2000mm x 992mm Garantía Manufactura: 10 año(s)
CANADIAN SOLAR	CS3W-435MS	Certificación de Potencia: IEC 61215 Núm. Certificación: 40045991 Laboratorio: VDE Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 435Watts 10 años (Potencia): 93.05% 20 años (Potencia): 87.55% Dimensiones: 6.92ft x 3.44FT Garantía Manufactura: 12 año(s)
Canadian Solar	CS3U-380MS	Certificación de Potencia: IEC 61215 Núm. Certificación: Z2180384937020 Laboratorio: TUVPSG Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 380Watts 10 años (Potencia): 91% 20 años (Potencia): 84% Dimensiones: 6.56 ft. x 3.25 ft Garantía Manufactura: 10 año(s)





## GOBIERNO DE PUERTO RICO

Departamento de Desarrollo Económico y Comercio  
Oficina de Gerencia de Permisos

Attachment B - Scope of Work  
PV Systems, Water Storage System Design,  
Acquisition, and Installation  
Número de Caso:  
CDBG-MIT-RFP-2023-02  
2021-CER-006375

### Certificación de Equipos de Energía Renovable

MARCA	MODELO	CERTIFICACIONES	ESPECIFICACIONES
Canadian Solar	CS3U-370MS	Certificación de Potencia: IEC 61215 Núm. Certificación: Z2180384937020 Laboratorio: TUVPSG Certificación de Seguridad: UL 1703 Núm. Certificación: 2284121 Laboratorio: CSA	Potencia Nominal: 370Watts 10 años (Potencia): 91% 20 años (Potencia): 84% Dimensiones: 6.56 ft x 3.25 ft Garantía Manufactura: 10 año(s)

#### División de Edificabilidad

Se recomienda la instalación del equipo de fuente de energía renovable sometido ante la OGPe, a tenor con el Reglamento para la Certificación de Sistemas de Energía Renovable y el Reglamento Conjunto para Obras de Construcción y Usos de Terrenos, vigentes.

#### Condiciones Especiales

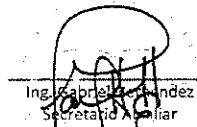
Bajo ninguna circunstancia, deberá interpretar que esta certificación implique la aprobación de instalación de equipos en un proyecto de construcción, ni que se autorice iniciar obras de construcción de clase alguna, sin el trámite del correspondientes permiso de construcción.

#### Firmas / Sellos

##### Fecha de Expedición:

WRR 20/JAN/2021  
WRR

WET  
WET

  
Ing. Gabriel Hernández Rodríguez  
Secretario Auxiliar  
Departamento de Desarrollo Económico y Comercio de Puerto Rico  
Oficina de Gerencia de Permisos

**Ing. Gabriel Hernández Rodríguez**  
**Secretario Auxiliar**

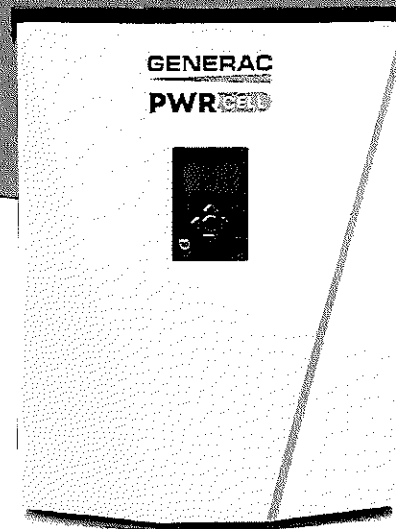


**GENERAC®**

**PWRCELL**

7.6kW 1Ø PWRcell Inverter with CTs  
Model #: XVT076A03

11.4 kW 3Ø PWRcell Inverter with CTs  
Model #: X11402 (Ordering SKU: APKE00013)



Solar + storage is simple with the Generac PWRcell™ Inverter. This bi-directional, REbus™-powered inverter offers a simple, efficient design for integrating smart batteries with solar. Ideal for self-supply, backup power, zero-export and energy cost management, the PWRcell Inverter is the industry's most feature-rich line of inverters, available in single-phase and three-phase models.

## FEATURES & BENEFITS

- Single inverter for grid-tied solar with smart battery integration
- Simplified system design: No autotransformer or battery inverter needed
- User-selectable modes for backup power, self-supply, time-of-use, zero-import and export limiting
- Free system monitoring included via PWRview™ Web Portal and Mobile App

AC OUTPUT/GRID-TIE	MODEL XVT076A03	MODEL X11402
CONT. GRID-TIED AC POWER @ 50°C (122°F):	7600 W	11400 W
AC OUTPUT VOLTAGE:	120/240, 1Ø VAC	120/208, 3Ø VAC
AC FREQUENCY:	60 Hz	
MAXIMUM CONTINUOUS OUTPUT CURRENT:	32 A, RMS	
GROUND-FAULT ISOLATION DETECTION:	Included	
CHARGE BATTERY FROM AC:	Yes	
THD (CURRENT):	< 2%	
TYPICAL NIGHTTIME POWER CONSUMPTION <sup>1</sup> :	< 7 W	

AC OUTPUT/ISLAND MODE	MODEL XVT076A03	MODEL X11402
MAX. CONT. AC POWER WHILE IN ISLAND MODE WITHOUT AN EXTERNAL TRANSFER SWITCH <sup>2</sup> :	7600 W	
MAX. CONT. AC POWER WHILE IN ISLAND MODE W/ EXTERNAL TRANSFER SWITCH AND SINGLE 6 MODULE BATTERY CABINET <sup>3</sup> :	9000 W	
MAX. CONT. AC POWER WHILE IN ISLAND MODE W/ EXTERNAL TRANSFER SWITCH AND 2 BATTERY CABINETS (8 MODULES MINIMUM) <sup>3</sup> :	11000 W	9600 W-11000 W*
PEAK MOTOR STARTING CURRENT (2 SEC):	50 A, RMS	
AC BACKUP OUTPUT VOLTAGE:	120/240, 1Ø VAC	120/208, 1Ø VAC
AC FREQUENCY:	60 Hz	
THD (VOLTAGE):	< 2%	
ALLOWABLE SPLIT PHASE IMBALANCE:	Up to 30%	

DC INPUT	MODEL XVT076A03	MODEL X11402
DC INPUT VOLTAGE RANGE:	360-420 VDC	
NOMINAL DC BUS VOLTAGE:	380 VDC	
DC DISTRIBUTION INPUT BREAKERS:	4 x 2P30 A	
MAX INPUT CURRENT PER DC INPUT:	30 A	
REVERSE-POLARITY PROTECTION:	Yes	
TRANSFORMERLESS, UNGROUNDED:	Yes	
DC BUS EXPORT FUSES (+/-):	40 A	
2-POLE DISCONNECTION:	Yes	

EFFICIENCY	MODEL XVT076A03	MODEL X11402
PEAK EFFICIENCY:	97.3%	97.7%
CEC WEIGHTED EFFICIENCY:	96.5%	97.5%

<sup>1</sup>Nighttime power consumption depends on the system mode

<sup>2</sup>In Island Mode, continuous power output is restricted to 7.6kW unless backup power is routed through an external transfer switch in a whole home backup application.

<sup>3</sup>Peak performance, values provided for 40°C (104°F).

\*In Island mode X11402 protected loads only supply 2 phases 120 VAC L-N, 208 L-L which results in lower power than in a grid tied 3 phase state. The low value of the range is for full L-L loading while high value of the range is full L-N loading

# Specifications

## FEATURES AND MODES

ISLAND MODE <sup>4</sup> :	Yes
GRID SELL:	Yes
SELF CONSUMPTION:	Yes
PRIORITIZED CHARGING FROM RENEWABLES:	Yes
GRID SUPPORT - ZERO EXPORT:	Yes
ESS PCS OPERATION MODES (IMPORT ONLY, EXPORT ONLY):	Yes

## ADDITIONAL FEATURES

SUPPORTED COMMUNICATION INTERFACES:	REbus™, CANbus, Ethernet
SYSTEM MONITORING:	PWRview™ Web Portal and Mobile App
BACKUP LOADS DISCONNECT <sup>4</sup> :	Yes, 50 A Circuit Breaker
INVERTER BYPASS SWITCH:	Automatic
WARRANTY:	10 Years

## STANDARDS COMPLIANCE

SAFETY:	UL 1741 SA, CSA 22.2 #107.1, UL 1998
GRID CONNECTION STANDARDS:	IEEE 1547, Rule 21, Rule 14H (HECO V1.1), CSIP, UL 1741 PCS CRD (Import Only, Export Only)
EMISSIONS:	FCC Part 15 Class B

## DIMENSIONS AND INSTALLATION SPECIFICATIONS

ENCLOSURE KNOCKOUTS - QTY, SIZE - IN (MM):	6 x Combo 3/4" x 1" (19 x 25.4) 7 x Combo 1/2" x 3/4" (12.7 x 19)	1 x 0.575" exclusively for optional LTE antenna mounting
DIMENSIONS L x W x H - IN (MM):	24.5" x 19.25" x 8" (622.3 x 488.9 x 203.2)	
WEIGHT - LB (KG):	62.7 (28.4)	
COOLING:	Forced convection	
AUDIBLE NOISE:	< 40 dBA	
OPERATING TEMPERATURE:	-4 to 122 °F (-20 to 50 °C) <sup>5</sup>	
ENCLOSURE TYPE:	Type 3R	

## INSTALLATION GUIDELINES

BATTERY TYPES SUPPORTED:	PWRcell™ Battery
MODULE SUBSTRING SIZE PER PV LINK OPTIMIZER:	Varies, refer to PV Link Installation Manual
MAXIMUM RECOMMENDED DC POWER FROM PV <sup>6</sup> :	10 kW (1Ø), 15 kW (3Ø)

<sup>4</sup>3Ø inverters offer backup for [single phase] 208 V loads.

<sup>5</sup>Includes ambient temperature rising from inverter operation. Reduced power at extreme temperatures.

<sup>6</sup>Values provided for PV-only or small storage systems. Additional PV power is permissible if sufficient battery storage capacity is installed.



## Certificación de Equipos de Energía Renovable

### Datos de la Solicitud

De acuerdo a la información suministrada se solicita la certificación para equipo(s) de energía renovable Comercial-Privado, en territorio del Estado Libre Asociado de Puerto Rico, según indicado(s) a continuación:

**Solicitante: NELSON CLASS**

**Correo Electrónico:** [nclass@glenninternational.com](mailto:nclass@glenninternational.com)

**Compañía:** Glenn International

### Datos de Equipo Certificado

**Tipo de Equipo(s):** Inversor

**Clasificación:** Equipo Nuevo

MARCA	MODELO	CERTIFICACIONES	ESPECIFICACIONES
GENERAC	XVT076A03	Certificación de Seguridad: UL 1741 Núm. Certificación: 5014992 Laboratorio: ITSNA	Interconectable: Sí Voltaje(s) Salida: 120 VAC Voltaje(s) Máximo Entrada: 420 VDC Eficiencia Máxima: 97.3% Tipo de Gabinete(NEMA): 3R Potencia Nominal: 7600Watts Garantía Manufactura: 10 año(s)

## División de Edificabilidad

Se recomienda la instalación del equipo de fuente de energía renovable sometido ante la OGPe, a tenor con el Reglamento para la Certificación de Sistemas de Energía Renovable y el Reglamento Conjunto para Obras de Construcción y Usos de Terrenos, vigentes.

W O R R  
W O R R

### Condiciones Especiales

Bajo ninguna circunstancia, deberá interpretar que esta certificación implique la aprobación de instalación de equipos en un proyecto de construcción, ni que se autorice iniciar obras de construcción de clase alguna, sin el trámite del correspondientes permiso de construcción.

WET

### Firmas / Sellos

**Fecha de Expedición:**

27/DEC/2021

~~Agrím. Josue D. Quinonez Moret~~  
~~Secretario Auxiliar Interino~~  
~~Departamento de Desarrollo Comunal y Gobierno de Puerto Rico~~  
~~Oficina de Gobierno de Distrito~~

**Agrim. Josué O. Quiñonez Moret**  
**Secretario Auxiliar Interino**



# SOLARMOUNT



## MANUFACTURER'S LIMITED PRODUCT WARRANTY

Unirac, Inc., ("Unirac") warrants to the buyer ("Buyer") at the original installation site ("Site") that any of the **SOLARMOUNT** components designed and manufactured by Unirac<sup>①</sup> and installed at the Site ("Product") shall be free from defects in material and workmanship which substantially impair their ability to perform their intended function, as referenced in the Unirac Product Information, for a period of twenty five (25) years – except that any factory-applied finish is warranted to be free from substantial manufacturing-related visible peeling or cracking or chalking under normal atmospheric conditions for a period of five (5) years ("Finish Warranty") – from the earlier of 1) the date the installation of the Product at the Site is substantially complete, or 2) 120 days after the purchase of the Product by the original Buyer of the Product ("Warranty Period").

### WARRANTY TRANSFERENCE

Buyer may transfer this Warranty to subsequent Site owners, or if original Buyer is a contractor, to the Site owner, so long as the transferee agrees to the terms of this Limited Warranty as if it were the Buyer. Proof of purchase is required for any warranty claim.

### FINISH WARRANTY LIMITATIONS

The Finish Warranty does not apply to any issues caused by foreign residue deposited on the finish, or an installation in atmospheric conditions more corrosive than normal conditions. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 –

<sup>WORK</sup>  
W00R Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed.

### WARRANTY LIMITATIONS

<sup>WET</sup>  
WET This Limited Warranty covers only the Product, and not PV modules, electrical components and or wiring used in conjunction with the Product or any other materials not provided by Unirac. Goods which may be sold by Unirac, but which are not designed or manufactured by Unirac are not warranted by Unirac, are sold only with the warranties, if any, of the original manufacturers thereof. This Limited Warranty does not cover damage to the Product that occurs during its shipment, storage, installation or use, or from force majeure acts including fire, flood, earthquake, storm, hurricane or other natural disaster, war, terrorist activities, acts of foreign enemies and criminal acts. This Limited Warranty does not cover damages or problems caused by the connection to or use of alternative materials not purchased from Unirac Price List. This Limited Warranty shall be void if A) installation of the Product is not performed in accordance with the Unirac Product Information, B) if the Product has been modified, repaired, or reworked in a manner not previously authorized by Unirac in writing, or C) the Product is installed in an environment for which it was not designed, each as determined by Unirac in its sole discretion.

### WARRANTY CLAIMS

If, within the Warranty Period, the Product shall be proven at Unirac's sole discretion to be nonconforming, then Unirac shall repair or provide a replacement for the nonconforming Product, or any nonconforming part thereof, at Unirac's option. Any such repair or replacement does not cause the beginning of new warranty terms, nor shall the Warranty Period of this Limited Warranty be extended. Unirac's aggregate liability for all warranty claims shall not exceed the original Purchase Price of the nonconforming Product. Buyer shall bear all costs of shipment or transportation related to the repair or replacement of the nonconforming product. Such repair or replacement shall be Buyer's sole remedy and shall fulfill all of Unirac's obligations with respect to the Product and all warranty claims.

EXCEPT FOR THE LIMITED WARRANTY EXPRESSED ABOVE, UNIRAC MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WHATSOEVER AND HEREBY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING AND USAGE OF TRADE.

UNIRAC SHALL NOT BE LIABLE FOR LOSS OF USE, REVENUE OR PROFIT, OR FOR DIRECT, INDIRECT, SPECIAL, PUNITIVE, LIQUIDATED, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE, OR FOR CLAIMS BY BUYER FOR DAMAGES OF BUYER'S CUSTOMERS, CLAIMS OF THIRD PARTIES OR INJURY TO PERSONS OR PROPERTY ARISING OUT OF ANY DEFECT OR NONCONFORMITY IN THE PRODUCT COVERED BY THIS WARRANTY, EVEN IF CAUSED BY THE NEGLIGENCE OF UNIRAC. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

① Excluding Plastic Wire Management Clips

EFFECTIVE DATE: FEBRUARY 28, 2017

#### **MANUFACTURER'S LIMITED PRODUCT WARRANTY**

Unirac, Inc., ("Unirac") warrants to the owner ("Owner") of the original installation site ("Site") and the transferees permitted herein that any of the Products, defined as components designed and manufactured by Unirac (excluding plastic wire management clips) and installed at the Site ("Products") shall be free from defects in material and workmanship which substantially impair their ability to perform their intended function, as referenced in the Unirac Product Information, for a period of twenty five (25) years - except that any factory-applied finish is warranted to be free from substantial manufacturing-related visible peeling or cracking or chalking under normal atmospheric conditions for a period of only five (5) years ("Finish Warranty") - from the earlier of 1) the date the installation of the Product at the Site is substantially complete, or 2) 120 days after the purchase of the Product by the original buyer of the Product ("Warranty Period").

#### **WARRANTY TRANSFERENCE**

Owner may not transfer this Warranty except to subsequent owners of the Site. Proof of purchase is required for any warranty claim.

#### **FINISH WARRANTY LIMITATIONS**

The Finish Warranty does not apply to any issues caused by foreign residue deposited on the finish, or an installation in atmospheric conditions more corrosive than normal conditions. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 — "Cleaning and Maintenance for Architecturally Finished Aluminum" ([www.aamanet.org](http://www.aamanet.org)) are not followed.

#### **WARRANTY LIMITATIONS**

This Limited Warranty covers only the Product, and not PV modules, electrical components and or wiring used in conjunction with the Product or any other goods, equipment or materials not designed and manufactured by Unirac. Goods which may be sold by Unirac, but which are not designed or manufactured by Unirac are not warranted by Unirac, are sold only with the warranties, if any, of the original manufacturers thereof.

<sup>WARR</sup> This warranty does not cover damage to the Product that occurs during its shipment, storage, installation or use, or from force majeure acts including fire, flood, earthquake, storm, hurricane or other natural disaster, war, terrorist activities, acts of foreign enemies and criminal acts. This warranty does not cover damages or problems caused by the connection to or use of alternative materials not purchased from Unirac. This Limited Warranty shall be void if A) installation of the Product is not performed in accordance with the Unirac Product Information and all national, state and local laws, codes, ordinances and regulations, B) if the Product has been modified, repaired, or reworked in a manner not previously <sup>WET</sup> authorized by Unirac in writing, or C) the Product is installed in an environment for which it was not designed, each as determined by Unirac in its sole discretion.

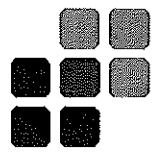
#### **WARRANTY CLAIMS**

If, within the Warranty Period, Unirac is notified in writing of an alleged non-conformity and if the Product shall be proven at Unirac's sole discretion to be nonconforming with this warranty, then Unirac shall repair, provide a refund of the purchase price of, or provide a replacement for the nonconforming Product, or any nonconforming part thereof, at Unirac's option. Any such repair, refund or replacement does not alter or extend the original Warranty Period. Unirac's aggregate liability for all warranty claims shall not exceed the original purchase price of the nonconforming Product. Owner shall bear all costs of shipment or transportation related to the repair or replacement of the nonconforming Product. Such repair, replacement or refund shall be Owner's sole remedy and Unirac's entire liability for any breach of this warranty and shall fulfill all of Unirac's obligations with respect to the Product and all warranty claims.

EXCEPT AS EXPRESSLY SET FORTH HEREIN, UNIRAC MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WHATSOEVER AND HEREBY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING AND USAGE OF TRADE.

UNIRAC SHALL NOT BE LIABLE FOR LOSS OF USE, REVENUE OR PROFIT, OR FOR DIRECT, INDIRECT, SPECIAL, PUNITIVE, LIQUIDATED, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE, OR FOR CLAIMS BY OWNER FOR DAMAGES OF OWNER OR OWNER'S CUSTOMERS, CLAIMS OF THIRD PARTIES OR INJURY TO PERSONS OR PROPERTY ARISING OUT OF ANY DEFECT OR NONCONFORMITY IN THE PRODUCT COVERED BY THIS WARRANTY, EVEN IF CAUSED BY THE NEGLIGENCE OF UNIRAC. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

EFFECTIVE DATE: FEBRUARY 14, 2022



SOLARMOUNT TILT LEGS  
(LATIN AMERICA)

# INSTALLATION GUIDE

DOCUMENT REVISION HISTORY - INTERNAL USE ONLY - DO NOT PUBLISH FOR PUBLIC RELEASE	
Publication Date	Notes / Changes
26JUL2022	IN PAGE B ADDED NOTE, IN PAGE C ADDED RAIL ORIENTATION IMAGES OF INSTALL SOLAR MOUNT RAIL ON TILT LEGS AND PAGE APPENDIX ADDED

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# SOLARMOUNT TILT LEGS (LATIN AMERICA)

# INSTALLATION GUIDE

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TABLE OF CONTENTS	PG
Tools & Assembly Details	1
Quick steps for Installation	2-3
Appendix A	4

# SOLARMOUNT TILT LEGS (LATIN AMERICA)

# TOOLS & ASSEMBLY DETAILS

## INSTALLATION GUIDE : PAGE 1

### TOOLS REQUIRED OR RECOMMENDED FOR LAYOUT & INSTALLATION:

- Tape measure
- Roofing crayon
- Chalk line
- Rotary hammer drill with appropriate carbide drill bit
- Hammer drill with appropriate size nut driver
- Hammer
- Hack saw/cut-off saw

### SM TILT LEGS (LATIN AMERICA) COMPONENTS:

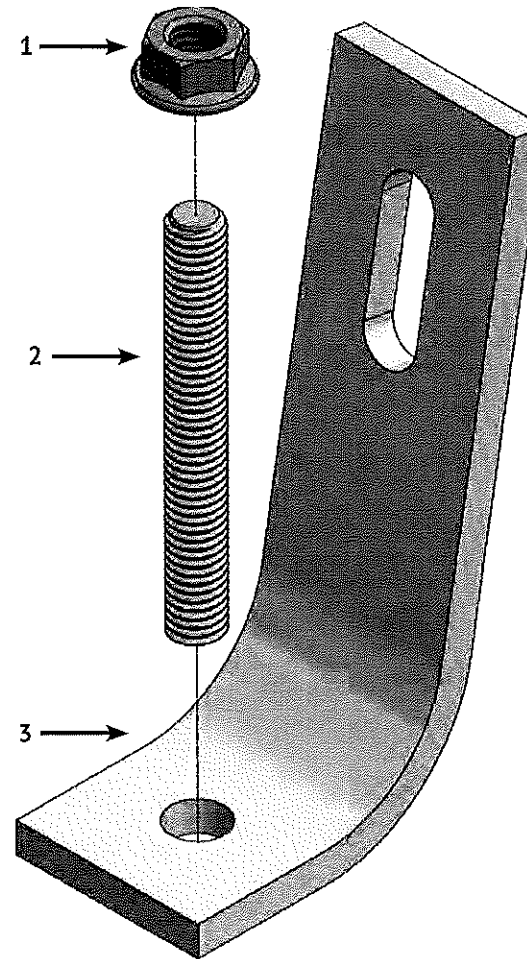
- 1. 3/8" Serrated flange nut
- 2. 3/8" Concrete fastener (adequate depth to  
Satisfy anchor/epoxy manufacturer)

- All-thread/epoxy
- All-thread/drop-in anchor
- Sleeve anchor
- Wedge anchor

~~WORK~~  
WORR Tapcon anchor  
3. SM tilt leg (latin america)

- Short leg
- Long leg

~~WET~~  
WET



### INSTALLATION NOTES:

- A. Solar mount tilt legs (latin america) are to be utilized on concrete roofs only
- B. Installer must confirm concrete is undamaged and adequate to accept concrete anchors
- C. Fastener length specification and capacity verification are the responsibility of the installer

Note: SM tilt legs (latin america) are intended for use on flat/low slope roofs only

### SHORT 5-DEGREE SET:

S.NO	PART NAME	PART NUMBER
1	SM FIXED TILT LEG, 5IN 5 DEG	307005M
2	SM RAISED TILT LEG, 8.5IN 5 DEG	307006M

### RAISED 5-DEGREE SET:

S.NO	PART NAME	PART NUMBER
1	SM RAISED TILT LEG, 8.5IN 5 DEG	307006M
2	SM RAISED TILT LEG, 11IN 5 DEG	307014M

### 10-DEGREE SET:

S.NO	PART NAME	PART NUMBER
1	SM FIXED TILT LEG, 5IN 10 DEG	307004M
2	SM FIXED TILT LEG, 11IN 10 DEG	307012M

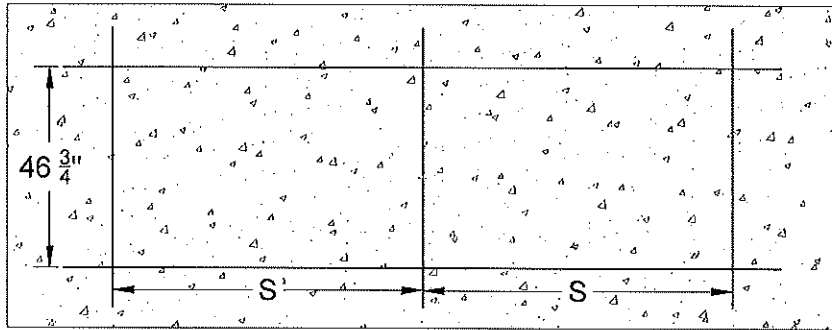
# SOLARMOUNT TILT LEGS (LATIN AMERICA)

## QUICK INSTALLATION STEPS

### INSTALLATION GUIDE

2

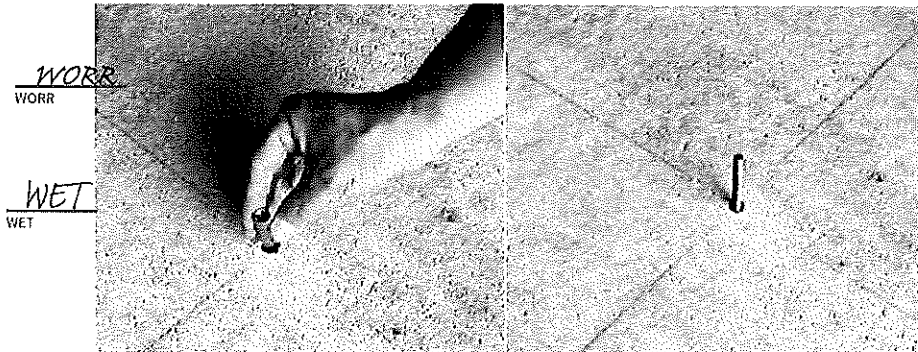
PAGE



**ARRAY LAYOUT:** Mark location of array supports. East/west support spacing shall be per design and engineering guide. North/south spacing shall be 46 3/4" typical.(Drop in anchor shown below)



**DRILL HOLES FOR CONCRETE ANCHORS:** Hole depth and diameter shall be per concrete anchor/epoxy manufacturer. Assure all dust and debris are removed from holes prior to anchor installation.



**INSTALL CONCRETE FASTENERS:** Insert anchors into holes and set per manufacturers recommendations. Install all-thread to appropriate depth to allow for thickness of tilt leg and serrated flange nut.



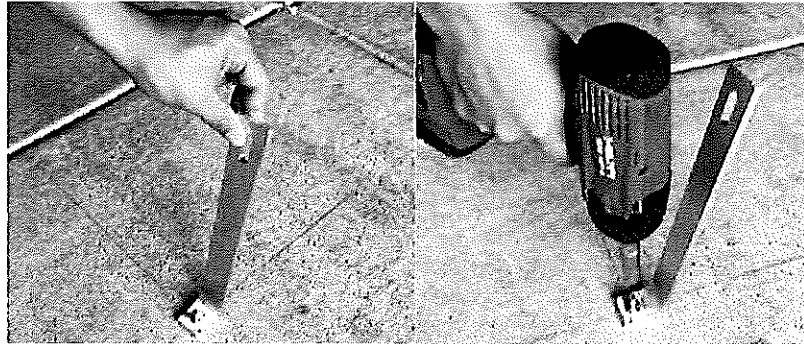
**INSTALL TILT LEG:** Align hole in short tilt leg with protruding all-thread and secure with 3/8" serrated flange nut. Tighten serrated flange nut to torque value provided by anchor manufacturer.

**CAUTION:** Ensure that the tilt legs are aligned as to not cause any rotation away from the rail. Rotation away from rail can bend the rail and cause stress on hardware. See Appendix A.

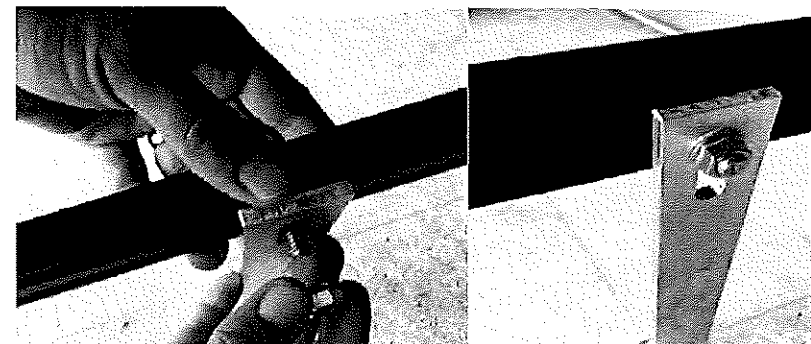


# SOLARMOUNT TILT LEGS (LATIN AMERICA)

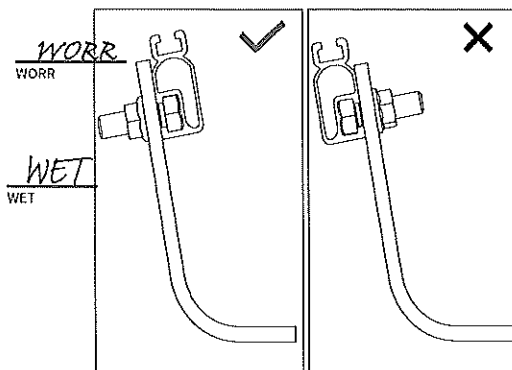
## QUICK INSTALLATION STEPS INSTALLATION GUIDE : PAGE 3



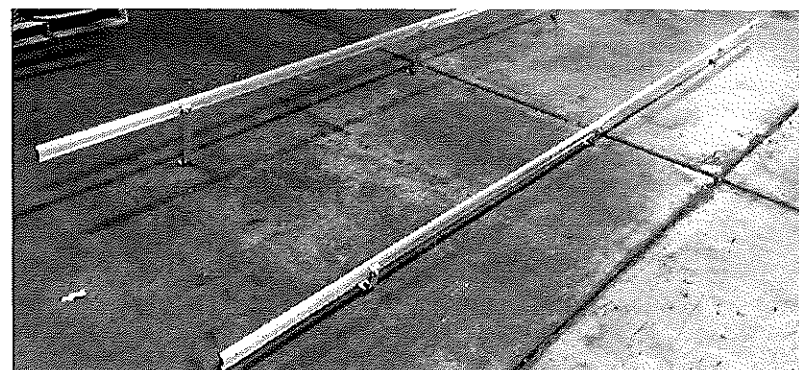
**INSTALL TILT LEG:** Align hole in long tilt leg with protruding all-thread and secure with 3/8" serrated flange nut. Tighten serrated flange nut to torque value provided by anchor manufacturer.



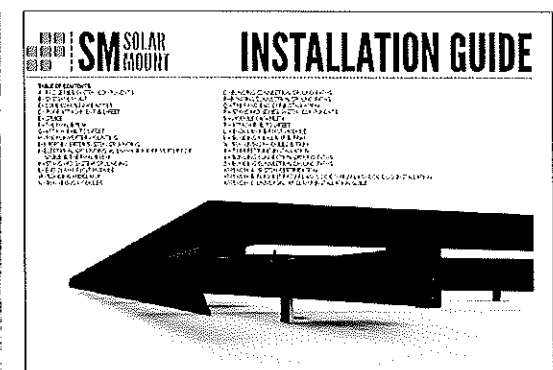
**INSTALL SOLARMOUNT RAIL ON TILT LEGS:** Utilize typical solar mount 3/8" t-bolt and serrated flange nut to fasten solar mount rail to short and tall tilt legs. Torque 3/8 rail attachment hardware to 30 ft-lbs.



**RAIL ORIENTATION:** The orientation of the rail should be as shown in above image.



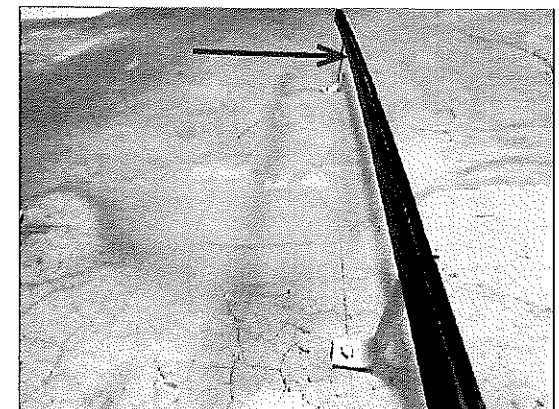
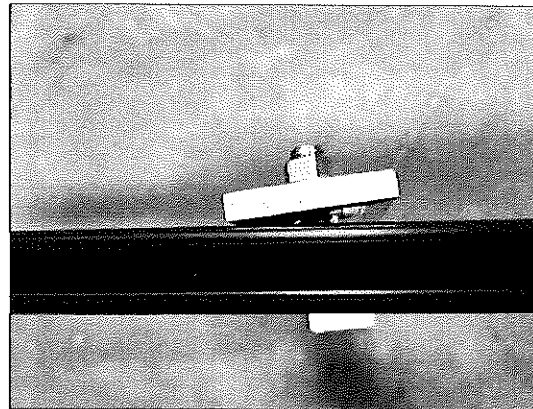
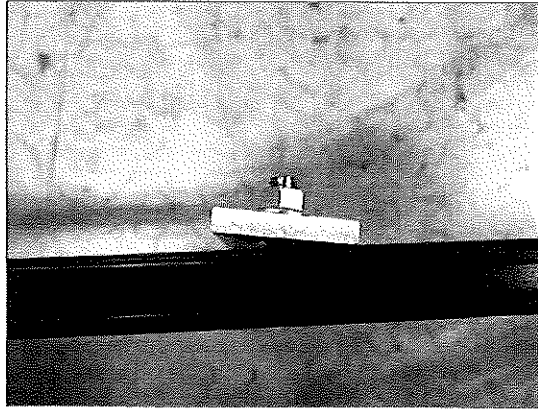
**COMPLETE ARRAY RAIL INSTALLATION:** Install solar mount rail on both short and tall legs. Center rail length to create equal cantilevers for array. Rail splice(s) may be required to achieve full array length.



**REFER TO STANDARD SM INSTALLATION GUIDE:** For splice, thermal break, module, bonding & grounding and all other solar mount installation details.



# SOLARMOUNT TILT LEGS (LATIN AMERICA)



Ensure that the tilt legs are aligned as to **NOT** cause any rotation away from the rail as shown in above.

Bending of the rail due to misalignment of tilt legs and causes stress on hardware.

WERR  
WERR

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**GENERAC**

**PWRCELL**

**OUTDOOR RATED BATTERY**

PWRcell Outdoor Rated Battery Cabinet (Ordering SKU: APKE00028)

3.0kWh PWRcell DCB Battery Module

Model #: BJ-DC805ZKBG (Ordering SKU: G0080040)

3.0kWh PWRcell EX Battery Module

Model #: G0080001

The PWRcell™ Outdoor Rated (OR) Battery Cabinet is a 3R smart battery enclosure that allows for a range of configurations to suit any need, small or large, indoor or outdoor. No other smart battery offers the power and flexibility of PWRcell.

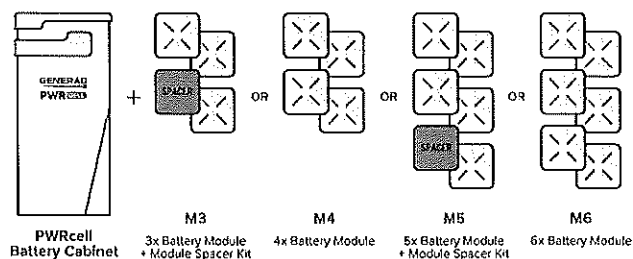
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## PWRcell BATTERY CABINET DESIGN

The PWRcell Battery Cabinet allows system owners the flexibility to scale from an economical 9kWh to a massive 18kWh by installing additional battery modules to the PWRcell Battery Cabinet. An existing PWRcell Battery Cabinet can be upgraded with additional modules. Use the graphic below and the chart on the back of this sheet to understand what components you need for your chosen PWRcell configuration.

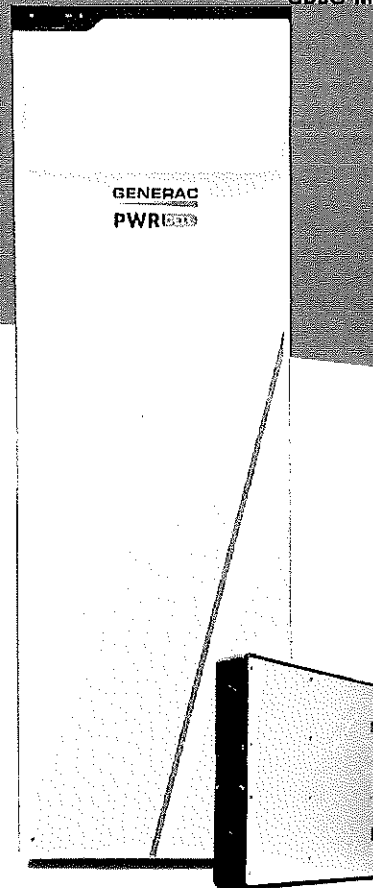
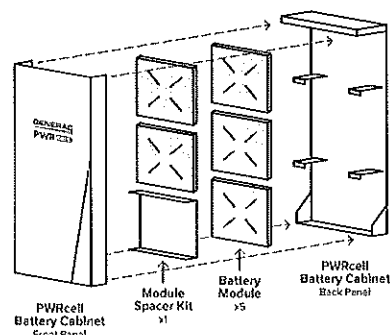
## BATTERY CONFIGURATION GUIDE



## FEATURES & BENEFITS

- Connect 2 PWRcell Battery Cabinets to a single PWRcell Inverter for up to 36kWh of storage
- Best-in-class battery backup power
- Plug-and-play with PWRcell Inverter and PV Link™
- Time-of-use (TOU) and zero-export ready
- Residential and commercial application ready.
- 3R-rated cabinet allows for outdoor or indoor installation
- Additional mounting hardware for outdoor installations comes standard to provide additional ground clearance and support

## BATTERY CABINET ASSEMBLY



# Specifications

## PWRcell BATTERY CONFIGURATIONS

BATTERY MODULE SERIES:	3.0 kWh DCB / 3.0 kWh EX			
BATTERY MODULES:	3	4	5	6
USABLE ENERGY:	9 kWh	12 kWh	15 kWh	18 kWh
NOMINAL CONT. AC POWER <sup>1</sup> :	3.4 kW	4.5 kW	5.6 kW	6.7 kW
MAX. CONT. AC POWER <sup>2</sup> :	4.5 kW	6 kW	7.5 kW	9 kW
NOMINAL CONT. DC (CHARGE/DISCHARGE) - A:	11.6	15.5	19.4	23.3
PEAK MOTOR STARTING CURRENT (2 SEC) - A, RMS:	25	33	42	50
REbus™ VOLTAGE - INPUT/OUTPUT:	360-420 VDC			
NOMINAL VOLTAGE:	380 VDC			
DC-DC ROUND-TRIP EFFICIENCY:	96.5%			
MAXIMUM AMBIENT OPERATING TEMPERATURE:	14 TO 122 °F (-10 TO 50 °C)			
OPTIMAL AMBIENT OPERATING TEMPERATURE:	41 to 104 °F (5 to 40 °C)			
MAXIMUM INSTALLATION ALTITUDE - FT (M):	9834 (3000)			
DIMENSIONS, L x W x H - IN (MM):	22" x 10" x 68" (559 x 254 x 1727)			
WEIGHT, ENCLOSURE - LB (KG):	115 (52)			
WEIGHT, INSTALLED W/ DCB MODULES - LB (KG):	280 (127)	335 (152)	390 (177)	445 (202)
WEIGHT, INSTALLED W/ EX MODULES - LB (KG):	287 (130)	344 (156)	401 (182)	459 (208)
WEIGHT, ACCESSORY MOUNTING HARDWARE - LB (KG):	21 (10)			
ENCLOSURE TYPE:	Type 3R			
WARRANTY - LI-ION MODULES:	10 Years, (7.56MWh)			
WARRANTY - ELECTRONICS AND ENCLOSURE:	10 Years			
COMMUNICATION PROTOCOL:	REbus™ DC Nanogrid™			
SEISMIC RATING:	IEEE 693-2018 (HIGH)			
COMPLIANCE:	UL 9540, UL 1973, UL 1642, CSA 22.2 #107.1			

<sup>1</sup>Average AC power over a complete discharge cycle. <sup>2</sup>Peak Performance, values provided for 40°C (104°F).  
Note: Charge/discharge rate may be reduced at temperature extremes

## PWRcell ACCESSORIES

Inside of the PWRcell Battery Cabinet, battery modules are stacked two deep on three levels, allowing for up to six modules to be connected in series. You can upgrade an existing PWRcell Battery Cabinet by adding Battery Modules and a Module Spacer (APKE00008). A Module Spacer is only required for battery configurations with an odd number of modules (i.e. 3 or 5).

Generac offers a convenient PWRcell Battery Upgrade Kit (APKE00009) to help replace lost or misplaced hardware.

Note: When adding modules, be sure all modules within an individual cabinet are of the same series type (i.e., EX or DCB).

## PWRcell MODEL BUILDER

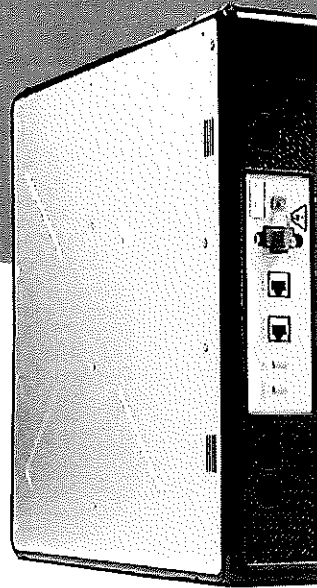
PRODUCT SERIES	ENCLOSURE TYPE	# OF MODULES	BATTERY SERIES
PWRcell	OR	M3	DCB
	↓	↓	↓
	IR (Indoor Rated) OR (Outdoor Rated)	3 Modules 4 Modules 5 Modules 6 Modules	DCB EX

Sample Model Name: PWRcell OR M3 DCB

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# GENERAC®



**GENERAC®**

**PWRCELL**

## 3.0kWh DCB BATTERY MODULE

3.0kWh PWRcell DCB Battery Module  
Model #: BJ-DCB05ZK5G (Ordering SKU: G0080040)

Build a better backup system with the Generac DCB Battery Module for PWRcell™. Add capacity and backup power with as few as three or as many as six modules. Upgrade a PWRcell Battery post-installation with the addition of more DCB modules for more power and capacity.

### FEATURES & BENEFITS

WDR

• Suitable for indoor and outdoor cabinets

• Modular: Stack the right number of battery modules for the application

WET

• Upgradeable: Add more modules later when consumer needs change

WET

• Easy to install: At just 55lbs, installers won't need special equipment to move and install these batteries

### SPECIFICATIONS

NOMINAL VOLTAGE:	46.8 VDC
USABLE CAPACITY @ TYPICAL VOLTAGE:	3.00 kWh
MAXIMUM AMBIENT OPERATING TEMPERATURE:	14 to 122 °F (-10 to 50 °C)
OPTIMAL AMBIENT OPERATING TEMPERATURE:	41 to 104 °F (5 to 40 °C)
STORAGE TEMPERATURE RANGE:	68 °F (20 °C)
SCALABILITY:	3-6 pcs in series
DIMENSIONS, L x W x H - IN (MM):	17.3" x 17.7" x 3.3" (440 x 450 x 84)
WEIGHT - LB (KG):	55 (25)
BATTERY CHEMISTRY:	Lithium Nickel Manganese Cobalt (NMC)
WARRANTY:	10 years or 7.56MWh Throughput (per module)

*Note: Charge/discharge rate may be reduced at temperature extremes*

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## Certificación de Equipos de Energía Renovable

### Datos de la Solicitud

De acuerdo a la información suministrada se solicita la certificación para equipo(s) de energía renovable Comercial-Privado, en territorio del Estado Libre Asociado de Puerto Rico, según indicado(s) a continuación:

**Solicitante:** RICARDO R ACEVEDO

**Correo Electrónico:** [racevedo@glenninternational.com](mailto:racevedo@glenninternational.com)

Compañía: Glenn International, Inc.

### Datos de Equipo Certificado

**Tipo de Equipo(s):** Batería

**Clasificación:** Equipo Nuevo

MARCA	MODELO	CERTIFICACIONES	ESPECIFICACIONES
Generac	BJ-DCB05ZKBG		Capacidad: 53 Ah Voltaje Nominal: 47 VDC Tipo de Batería: Li-ion Tipo de Carga y Descarga: 100 Dimensiones Nominales: 440 x 450 x 84 Peso nominal: 55 lbs. Garantía Manufactura: 10 año(s)

## División de Edificabilidad

Se recomienda la instalación del equipo de fuente de energía renovable sometido ante la OGPE, a tenor con el Reglamento para la Certificación de Sistemas de Energía Renovable y el Reglamento Conjunto para Obras de Construcción y Usos de Terrenos, vigentes.

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### Condiciones Especiales

Bajo ninguna circunstancia, deberá interpretar que esta certificación implique la aprobación de instalación de equipos en un proyecto de construcción, ni que se autorice iniciar obras de construcción de clase alguna, sin el trámite del correspondientes permiso de construcción.

WET  
WET

**Firmas / Sellos****Fecha de Expedición:**

22/JUN/2021

Ing. Gabriel Hernández  
Secretario Auxiliar  
Departamento de Desarrollo Económico y Comercio de Puerto Rico  
Oficina de Comercio Exterior

**Inq. Gabriel Hernández Rodríguez**

**Secretario Auxiliar**



**GENERAC**

**PWRCELL**

**AUTOMATIC TRANSFER SWITCH**

100A Non-Service Entrance Rated  
Model #: CXSC100A3  
UPC #: 696471081701

100A Service Entrance Rated  
Model #: CXSW100A3  
UPC #: 696471081718

200A Service Entrance Rated  
Model #: CXSW200A3  
UPC #: 696471081725

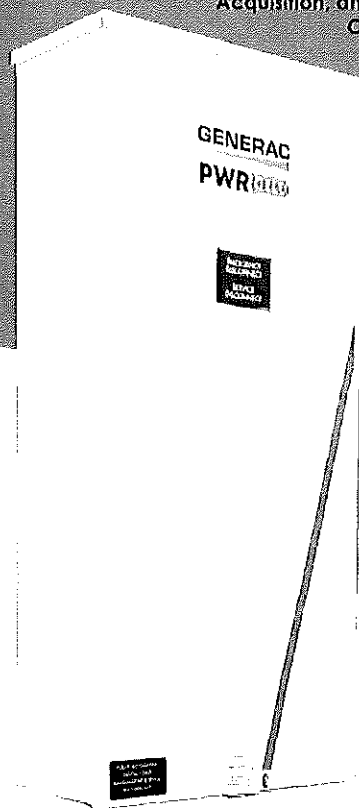
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An integrated solar + storage system with load management for whole home coverage is made easy with the PWRcell™ Automatic Transfer Switch (ATS). Power the entire home and manage up to four individual HVAC (24 Vac controlled) loads with the PWRcell ATS. This built-in capability requires no additional hardware. When used in tandem with Generac Smart Management Modules (SMM) up to eight additional circuits can be controlled by the PWRcell Inverter. Make the most of your Generac solar + storage system with this comprehensive load management solution.

## FEATURES & BENEFITS

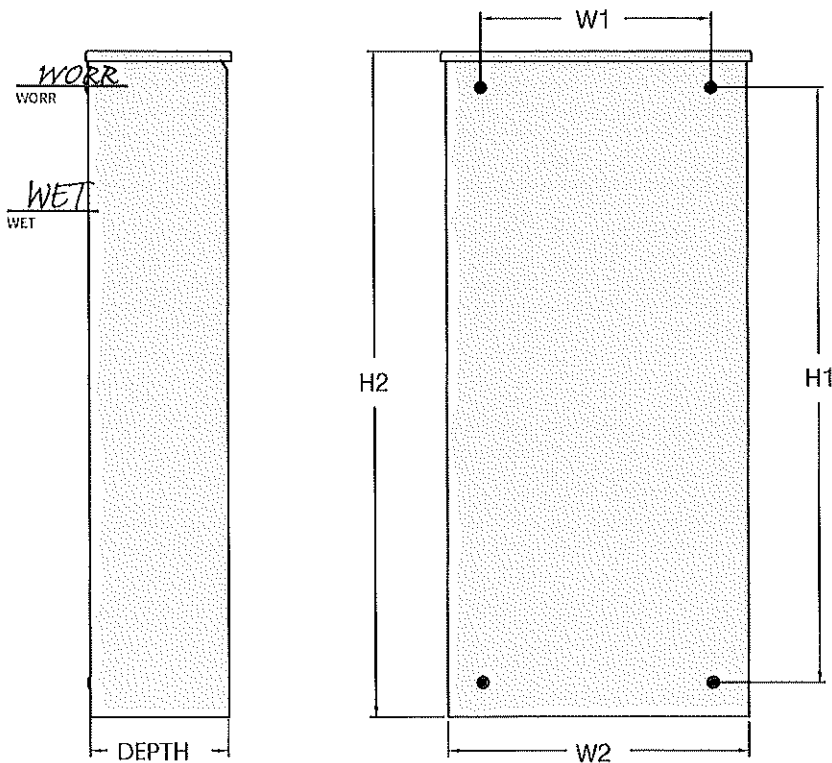
- Unlock whole home backup power capability for PWRcell solar + storage systems
- Manage up to four HVAC systems, and an additional eight circuits with optional Smart Management Modules (SMMs)
- Aluminum type 3R enclosure with durable finish for indoor or outdoor installation
- Heavy Duty Generac Contactor is an ETL recognized device, designed for years of service and reliability



# Specifications

SPECIFICATIONS	CXSC100A3	CXSW100A3	CXSW200A3
AMPS:	100	100	200
VOLTAGE	120/240 1Ø	120/240 1Ø	120/240 1Ø
LOAD TRANSITION TYPE (AUTOMATIC)	OPEN TRANSITION	OPEN TRANSITION SERVICE RATED	OPEN TRANSITION SERVICE RATED
ENCLOSURE TYPE	NEMA 3R	NEMA 3R	NEMA 3R
COMPLIANCE	UL 1008	UL 1008	UL 1008
WITHSTAND RATING (AMPS)	10,000	10,000	20,000
LUG RANGE	1/0 - #14	1/0 - #14	250 MCM - #6

DIMENSIONS		CXSC100A3	CXSW100A3	CXSW200A3
HEIGHT (IN/MM)	H1	17.24/437.9	17.24/437.9	26.75/679.4
	H2	20/508	20/508	30/762
WIDTH (IN/MM)	W1	12.5/317.5	12.5/317.5	10.5/266.7
	W2	14.6/370.8	14.6/370.8	13.5/342.9
DEPTH (IN/MM)		7.09/180.1	7.09/180.1	6.3/160.1
WEIGHT (LBS/KG)		20/9.07	22.5/10.21	39/17.69



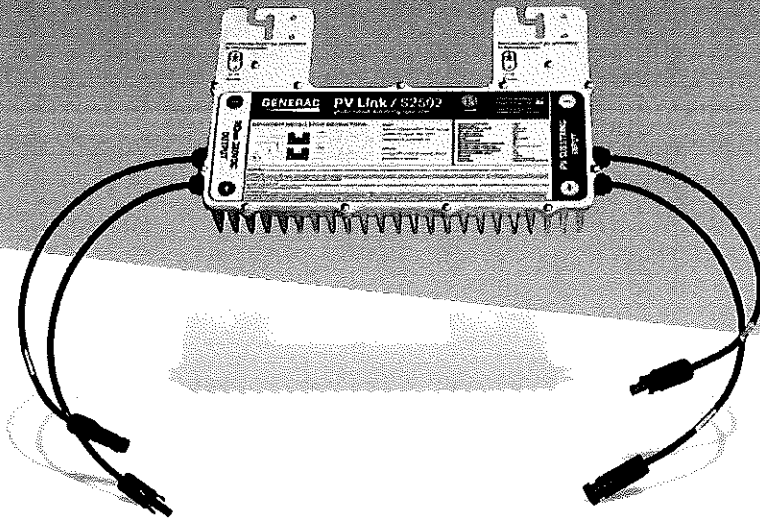


## FEATURES:

Fast, simple installation

Lower failure risk than  
module-level optimizers

NEC 2017 rapid shutdown  
compliant with SnapRS™



# PV Link™

2500W MPPT Substring Optimizer

Model: APKE00010 Certification Model Reference: S2502

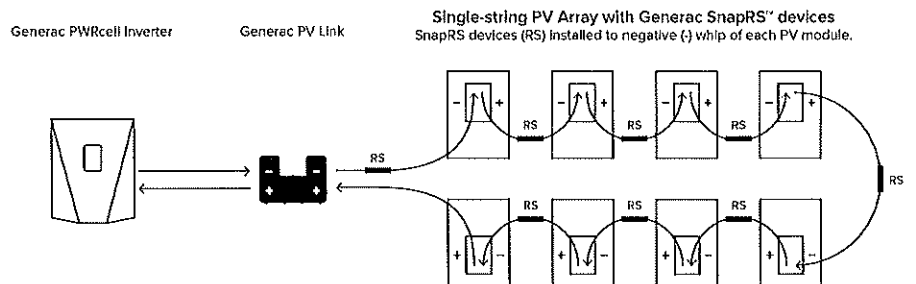
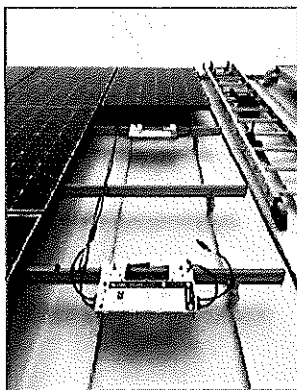
PV Link is the simple solar optimizer for quick installation and long-lasting performance. Connect as few as two or as many as nine PV modules to each PV Link to overcome shading and challenging roof lines.

WORR  
WORR

## ADDITIONAL FEATURES

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- Quick connections with MC4 connectors
- 2500W capacity
- Compatible with high-voltage smart batteries
- Cost-effective solution for high-performance PV
- Ground-fault protection



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# Specifications

## PWRCELL PV LINK (APKE00010)

RATED POWER	2500 W	PROTECTIONS	Ground-fault, Arc-fault (Arc-fault Type 1 AFCI, Integrated)
PEAK EFFICIENCY	99%	MAX OPERATING TEMP	70 °C
MPPT VOLTAGE RANGE	60-360 VMP	SYSTEM MONITORING	PWRview Web Portal and Mobile App
MAX INPUT VOLTAGE	420 VOC; max when cold	ENCLOSURE	Type 3R
MAX OUTPUT	420 VOC	WEIGHT	7.3 lb
NOMINAL OUTPUT (REBUS™)	380 VDC	DIMENSIONS (L,W,H)	2" x 15.4" x 9.6"
MAX OUTPUT CURRENT	8 A	COMPLIANCE	UL 1741, CSA 22.2
MAX SHORT CIRCUIT CURRENT (ISC)	18 A	WARRANTY	25 Years
STANDBY POWER	<1 W		

Specifications subject to change without notice.

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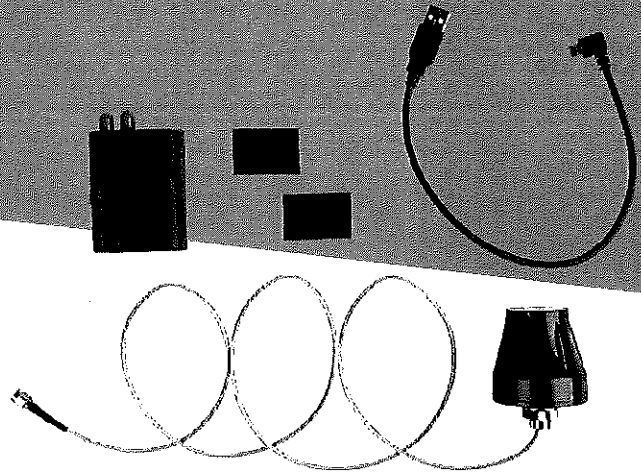
Part No. A0000528162 REV A

**GENERAC®**

**PWRCELL**

## LTE ACCESSORY KIT

PWRcell LTE Accessory Kit  
Model #: PCLTE1



The PWRcell LTE Accessory Kit provides cellular communications between PWRcell inverters equipped with a Beacon and Generac's monitoring platforms, delivering reliable, hassle-free connectivity.

The plug-and-play installation requires no configuration, reducing time on site and labor costs by avoiding time-consuming wall penetrations, cable routing, and the need for WiFi extenders.

Each Kit supports one PWRcell inverter and includes an external antenna and a 5-year data plan.

### **WORK** FEATURES & BENEFITS

- Reduces installation time and labor costs, avoiding wall penetrations and cable channels

### **WET** Consistent remote monitoring and troubleshooting, independent of the customers' internet connection

- Reliable access to software updates and remote support
- Wide coverage throughout the U.S. and Puerto Rico

SPECIFICATIONS	
CELLULAR BAND	LTE
FREQUENCY BANDS	B2,B4,B5,B13,B17
COVERAGE	United States & Puerto Rico
POWER SUPPLY	4.75V to 32V DC
RF	2 x SMA Connectors
COMMUNICATIONS	1 x Micro-USB connector & 1 x Micro-fit connector w/RS-232
SIM	3FF
ANTENNA	698-960/1710-2700MHz SMA(M), IP67 Compliant

SPECIFICATIONS CONT.	
LENGTH	67mm (72.85 w/connectors)
WIDTH	51.5mm
THICKNESS	23.5mm
WEIGHT	45g
ENCLOSURE MATERIAL	Plastic
MOUNTING	Pre-installed bracket on inverter or Dual Lock tape
OPERATING TEMPERATURE	-20 C to 55 C
SAFETY CERTIFICATIONS	FCC, CE, cUL, CSA
REGULATORY CERTIFICATIONS	FCC
PRODUCT COMPATIBILITY	PWRcell Beacon

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#### FEATURES:

Easy installation

Low cost, high  
efficiency solution

NEC 2017 and 2020  
PVRSS compliant



## SnapRS™

Inline Disconnect Switch

Model: APKE00011 Certification Model Reference: RS801

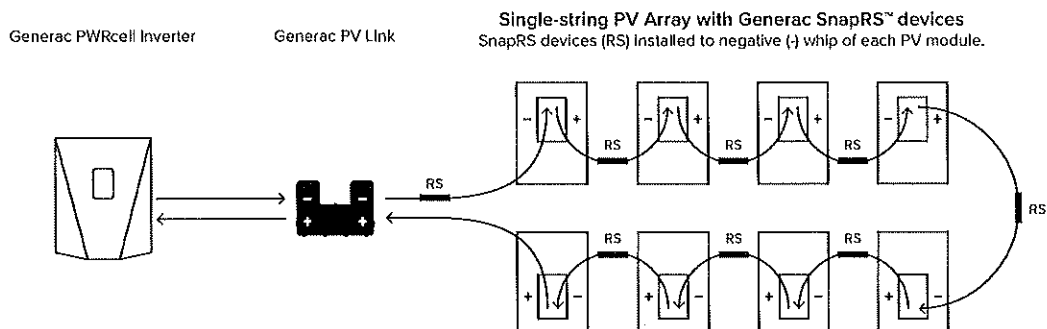
The Generac SnapRS is NEC 2017 compliant, and doesn't require any extra hardware to mount, no pairing and no fussy digital communications. Just snap a Generac SnapRS disconnect device to each PV module for total rapid shutdown performance. When signaled by the inverter, SnapRS units break the PV circuit, reducing array voltage to <80V in seconds.

WORR  
WORR

### SYSTEM DESIGN

Snap a Generac SnapRS disconnect device to the negative whip (-) of each module in the solar array for simple NEC-2017 module-level rapid shutdown compliance. SnapRS devices isolate array voltage when a rapid shutdown command is given by a connected Islanding Inverter

WET  
WET



### ADDITIONAL FEATURES

- Fast, easy and simple to install
- One SnapRS device per PV module
- Achieves PVRSS Compliance
- Low cost, high efficiency solution

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# Specifications

## SNAPRS (APKE00011)

PV MODULE MAX VOC	75 V	OPERATING TEMPERATURE	-40 to 70 °C
EFFICIENCY	99.9 %	CERTIFICATIONS	UL1741
MAX INPUT CURRENT	13 A	WEIGHT	100 g
SHUTDOWN TIME	< 10 Seconds	DIMENSIONS (L,W,H)	1" x 1" x 7"
ENCLOSURE RATING	NEMA 6P	WARRANTY	25 Years

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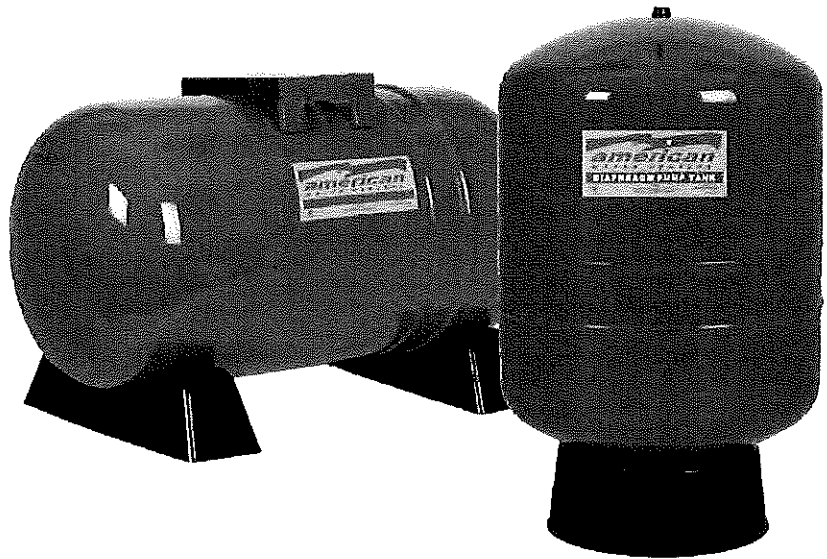
Part No. A0000528183 REV A



# Export Pump Tanks

## EXPORT PUMP TANK FEATURES

- Drawn Steel Construction
- Diaphragm Operation
- Corrosion Resistant Base
- Lightweight
- Maximum Working Pressure 100 psi
- Pre-Charged at 25 psi



Certified to NSF/ANSI  
61-Q and 372

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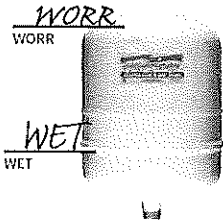
# Export Pump Tanks

## EXPORT PUMP TANK PRE-PRESSURIZED DIAPHRAGM OPERATION

American export pump tanks are designed for installation flexibility, and years of trouble-free service. Smooth, dependable diaphragm design and operation provides precise control of system operation cycles. Free-standing and in-line vertical tanks are available, as well as horizontal tanks with universal pump mounting bracket.

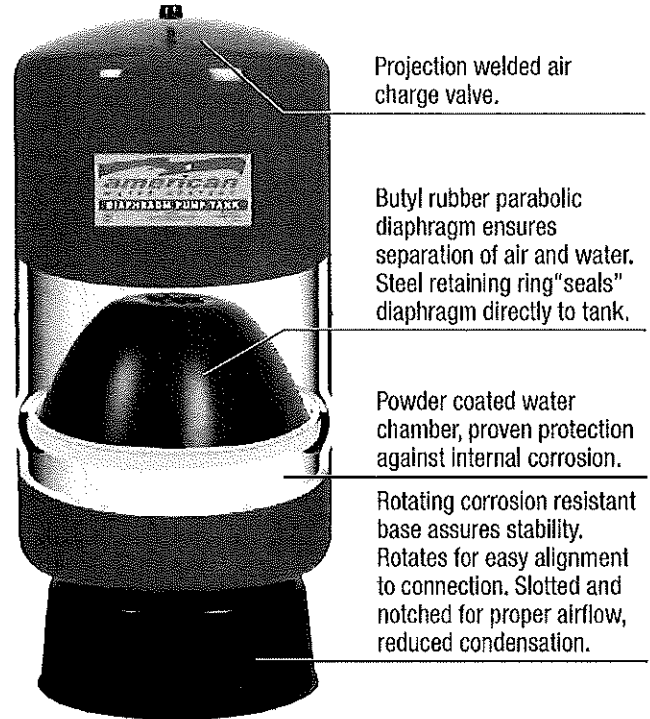
## HIGHER DRAWDOWN THAN COMPETITION!

The industry's most popular "standard" tank sizes are 32-gallon and 44-gallon. American offers 36 gallon and 52-gallon tanks in the same price range. A 36-gallon American delivers 12% higher drawdown than the industry standard. A 52-gallon American delivers 18% higher drawdown than standard.

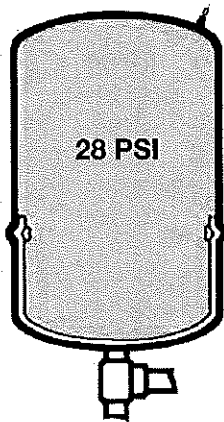


## IN-LINE TANKS

In-Line Series tanks, available in 2, 4.6, and 7.3-gallon sizes and are designed to be supported by system piping (See Typical Installations, page 5).



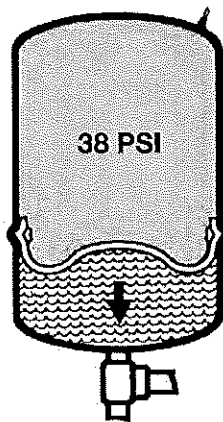
## PRE-PRESSURIZED PUMP TANK OPERATION CYCLES



### START-UP CYCLE\*

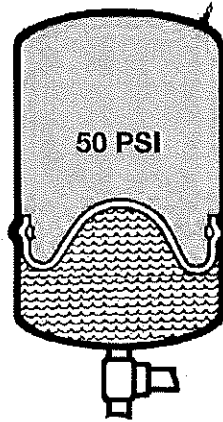
Diaphragm is pressed against the bottom of the chamber.

\*Based on 30-50 operating system.



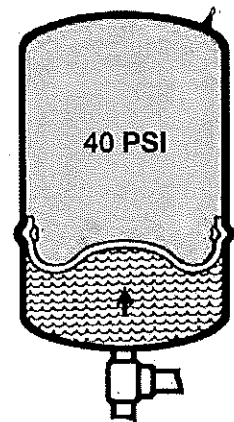
### FILL CYCLE\*

Water is pumped into the reservoir, which forces the diaphragm upward into the air chamber.



### HOLD CYCLE\*

Pump-cutoff pressure is attained. Diaphragm reaches its uppermost position. Reservoir is now filled to its rated capacity.



### DELIVERY CYCLE\*

Pump remains shut off while air pressure in top chamber forces diaphragm downward, delivering water to system.



# Export Pump Tanks

## PRE-PRESSURIZED DIMENSIONS AND WEIGHTS

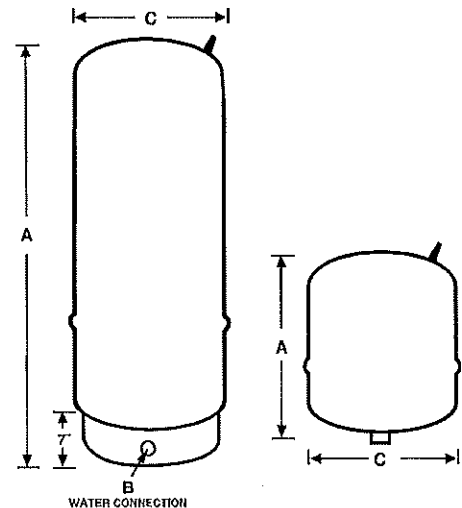
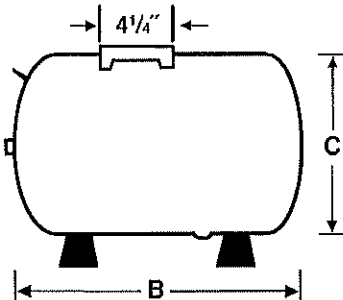
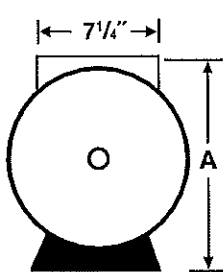
	Model Number	Volume (Gallons)	Dimensions in Inches			Weight (lbs)
			"A" Overall Height	"B" To Center of Water Inlet	"C" Diameter	
ADX Series Free Standing	ADX-14	14.0	24-3/4	2-1/4	15-3/8	25.5
	ADX-20	20.0	32-3/4	2-1/4	15-3/8	30
	ADX-32	32.0	45-1/2	2-1/4	15-3/8	40
	ADX-36S	36.0	32-3/8	2-1/4	20	45
	ADX-52	52.0	38-5/8	2-1/4	23-3/8	77
	ADX-86	86.0	59	2-1/4	23-3/8	105
	ADX-96	96.0	63-3/8	2-1/4	23-3/8	111
ADX Series In-Line	ADX-119	119.5	61-1/4	2-1/2	26	165
	ADX-2	2.0	10-3/16	—	8-1/4	5
	ADX-5	4.6	14-3/4	—	11	9
ADXH Series Horizontal	ADX-7	7.3	21-1/8	—	11	14
				"B" Overall Length		
	ADXH-7	7.3	12-7/8	21-1/8	11	16
	ADXH-14	14.0	17-3/8	21-3/4	15-3/8	25-1/2
	ADXH-20	20.0	17-3/8	27-1/8	15-3/8	30

ADX-14, ADX-20, ADX-36S connection 1" Female.

ADX-52, ADX-86, ADX-96, ADX-119 connection 1- 1/4" Female.

Inline connection 3/4" Male.

ADXH-7 connection 3/4" Male. \* ADXH-14, ADXH-20 connection 1" Male.





# Export Pump Tanks

## PUMP TANK SIZING

### FREE-STANDING SELECTION CHARTS

The charts below allow you to easily select the right free-standing tank for standard size pumps between 2-1/2 and 30 gallons in capacity and for 20-40 psi, 30-50 psi and 40-60 psi pressure ranges. Minimum run times shown (from start-up) are 1 minute, 1-1/2 minutes and 2 minutes. For example, for a system that delivers 10 gpm at 30-50 psi, with a minimum run time of 1 minute, Chart 1 indicates that the proper tank is the ADX-36S.

Chart 1-ADX Series Free-Standing Tank Selection Chart

Pump GPM	System Pressure Ranges-PSI								
	20-40			30-50			40-60		
	Minimum Run Times (Minutes)								
	1	1-1/2	2	1	1-1/2	2	1	1-1/2	2
2.5	ADX-14	ADX-14	ADX-14	ADX-14	ADX-14	ADX-20	ADX-14	ADX-20	ADX-20
5	ADX-14	ADX-20	ADX-36S	ADX-20	ADX-36S	ADX-36S	ADX-20	ADX-36S	ADX-52
7	ADX-20	ADX-36S	ADX-52	ADX-36S	ADX-36S	ADX-52	ADX-36S	ADX-52	ADX-86
10	ADX-36S	ADX-52	ADX-86	ADX-36S	ADX-52	ADX-86	ADX-52	ADX-86	ADX-86
12	ADX-36S	ADX-52	ADX-86	ADX-52	ADX-86	ADX-86	ADX-52	ADX-86	ADX-96
15	ADX-52	ADX-86	ADX-86	ADX-52	ADX-86	ADX-119	ADX-86	ADX-96	ADX-119
20	ADX-86	ADX-86	ADX-119	ADX-86	ADX-119	[2]ADX-86	ADX-86	ADX-119	[2]ADX-86
25	ADX-86	ADX-119	[2]ADX-86	ADX-86	[2]ADX-86	[2]ADX-86	ADX-96	[2]ADX-86	[2]ADX-96
30	ADX-86	[2]ADX-86	[2]ADX-86	ADX-119	[2]ADX-86	[2]ADX-119	ADX-119	[2]ADX-96	[2]ADX-119

Chart 2- Drawdown Volume Multiplier (Approximate)

Pump Shut-Off Pressure psi	Pump Start-Up Pressure-PSI							
	10	20	30	40	50	60	70	80
20	0.26							
30	0.41	0.22						
40		0.37	0.18					
50		0.46	0.31	0.15				
60			0.40	0.27	0.13			
70			0.47	0.35	0.24	0.12		
80				0.42	0.32	0.21	0.11	
90				0.48	0.38	0.29	0.19	0.10
100					0.44	0.35	0.26	0.17

Chart 3- Drawdown in Gallons

Model No.	Vol. in Gallons	20-40	30-50	40-60
ADX-2	2.0	0.7	0.6	0.5
ADX-5	4.6	1.7	1.4	1.2
ADX-7	7.3	2.7	2.3	2.0
ADX-14	14.0	5.2	4.3	3.8
ADX-20	20.0	7.4	6.2	5.4
ADX-32	31	11.4	9.6	8.4
ADX-36S	36.0	13.3	11.2	9.7
ADX-52	52.0	19.2	16.1	14.0
ADX-86	86.0	31.8	26.7	23.2
ADX-96	96.0	35.5	29.8	25.9
ADX-119	119.5	44.2	37.0	32.3

**IF PROPER TANK SELECTION CANNOT BE MADE USING CHART 1, FOLLOW THIS PROCEDURE:**

First find the "drawdown multiplier" by matching the pump start-up and shut-off pressures on Chart 2. For example, the multiplier for a 30-50 psi pressure range is .31. Next, insert the pump GPM capacity and desired minimum run time into this formula:

$$\frac{\text{PUMP GPM} \times \text{Min. Run Time}}{\text{Multiplier}} = \text{Minimum Tank Volume Required}$$

To assume dependable Drawdown Volumes, and in keeping with present industry practice, Drawdowns are based on Boyles Law.

For example, using a 10 GPM pump, a one-minute minimum run time, and a 30-50 psi pressure range, the formula is as follows:

$$\frac{10 \times 1}{.31} = 32.25 \text{ Minimum Tank Volume}$$

Then, using Chart 3, select the tank that has a minimum volume that meets or exceeds your minimum volume requirement, and supplies adequate drawdown at the required pressure range. Minimum drawdown equals Pump GPM x Minimum Run Time. Therefore, in the above example, select the ADX-36S 36-gallon tank. It provides adequate drawdown at 30-50 psi.

## RULE OF THUMB SYSTEM SIZING

The following water requirements figures are based on averages accepted by the industry. They represent typical household and farm animal water use requirements. Generally speaking, a reliable daily average water requirement is 100 gallons per day per person.

### Average daily farm animal requirements

Gallons/Day	
Horse, Mule, Steer	12
Cow-Dry	15
Cow-Milking	35
Hog	4
Sheep	2
Chicken/100	6
Turkey/100	20

### Average household water requirements (GPM) using industry-accepted 7-minute peak demand cycle

No. of Bathrooms	Type of Water Using Fixtures Installed	GPM Required
1	Sink, Toilet, Lavatory Tub/Shower	7
1 1/2	Same as Above but with Automatic Washer	10
2-2 1/2	Same as Above but with Automatic Dishwasher	14
3-4	Same as Above	17

### Average home water requirements based on industry-accepted 7-minute peak demand cycle

Unit	Flow Rate GPM	Requirement Gallons
Kitchen Sink	5	3
Toilet	4	5
Lavatory	4	2
Tub or Shower	5	35
Auto Wash Machine	5	35
Dishwasher	2	14
Garden Hose (1/2")	3	Depends upon cycle time
Lawn Sprinkler	3-7	
Water Softener	7	





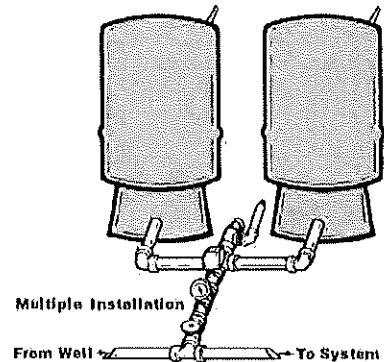
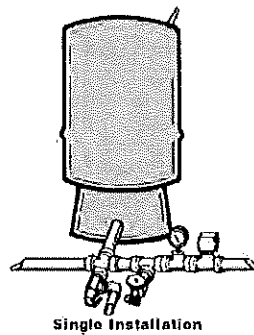
# Export Pump Tanks

## TYPICAL INSTALLATIONS

For multiple installations, manifold size is critical. If you have questions about sizes call our Technical Engineering Services Department at 1-800-999-9515.

### FREE-STANDING SERIES\*

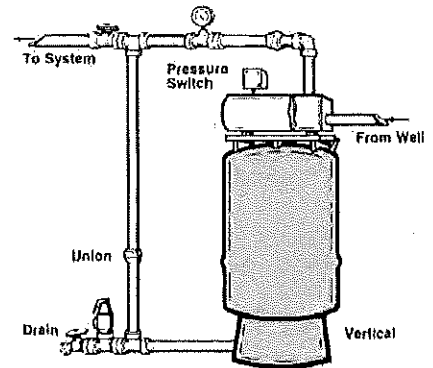
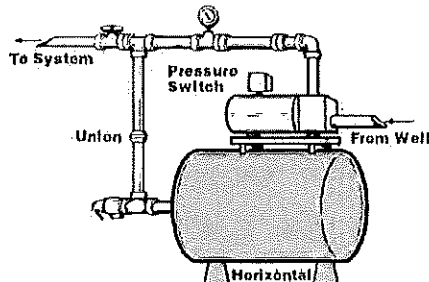
The standard installation, utilizing front entry, with gauge, relief valve and pressure switch installed in front of tank.



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### FREE-STANDING SERIES WITH PUMP MOUNTED ON TANK\*

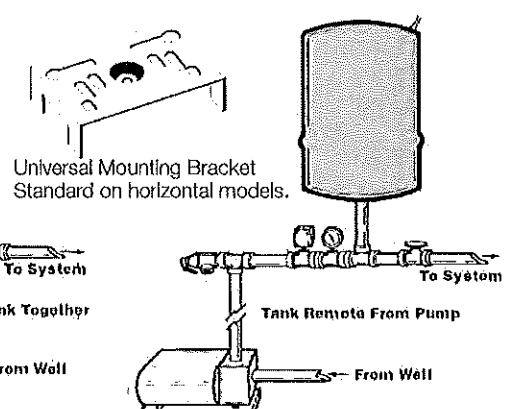
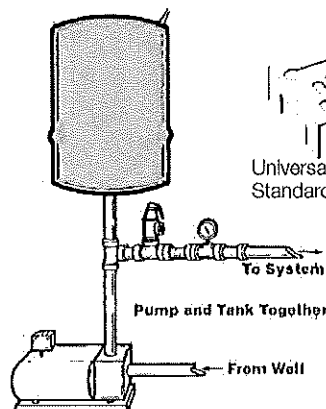
WET  
WET The pump can be mounted on tank using a universal mounting base. The pump and base can be strapped to the tank in the horizontal position, or mounted to the tank in a vertical position.



### IN-LINE SERIES\*

The In-Line Series is designed to be supported by system piping, either directly above the pump, or in a convenient place in the piping system as close to the pump as possible.

\* When pump and tank are in different locations, the pressure switch should be at the tank location. Or compensating adjustment must be made for pressure loss due to head of water, i.e., one psi for every two feet of elevation.

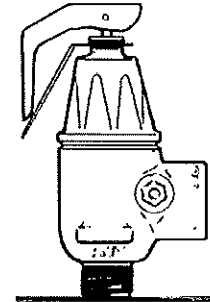
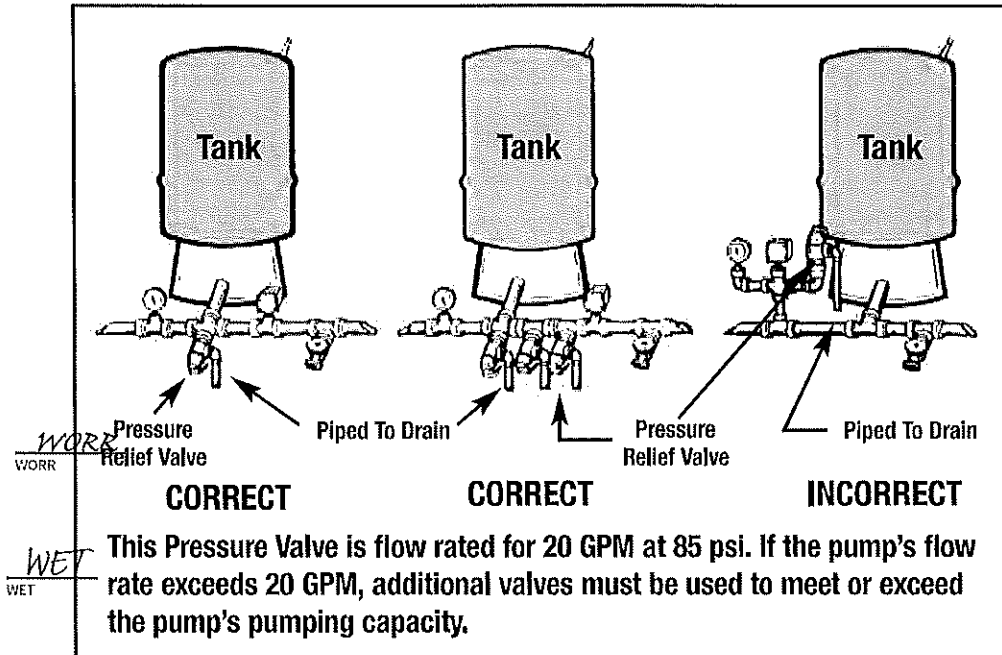




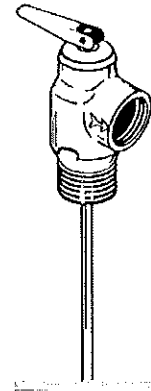
## Export Pump Tanks

### PRESSURE RELIEF VALVE

ONLY FOR INSTALLATION ON PUMP TANK OR EXPANSION TANK SYSTEMS



- 75 pound setting
- 20 GPM at 85 psi
- 3/4" male inlet size
- 3/4" female outlet size



- 100 pound setting
- 20 GPM at 85 psi
- 3/4" male inlet size
- 3/4" female outlet size

For technical information call (800) 999-9515. American Water Heaters reserves the right to make product changes or improvements without prior notice.

## TABLE OF CONTENTS

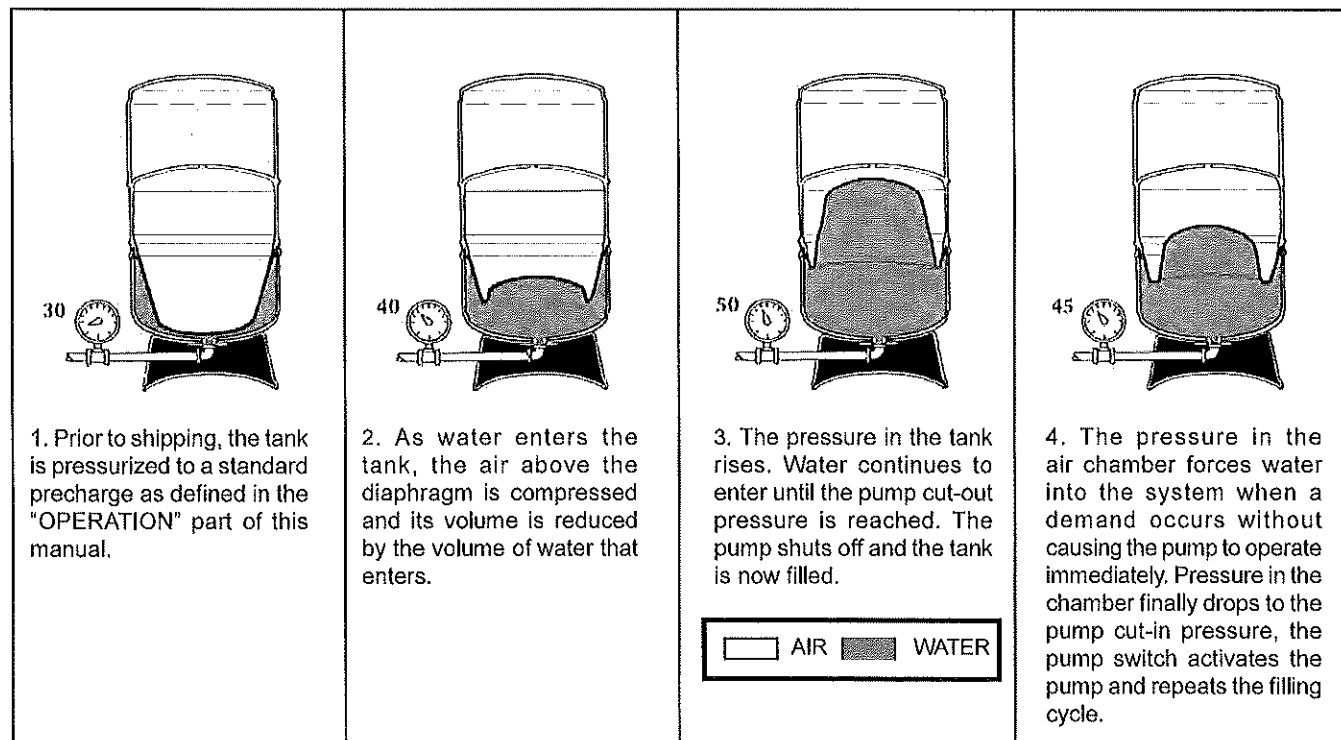
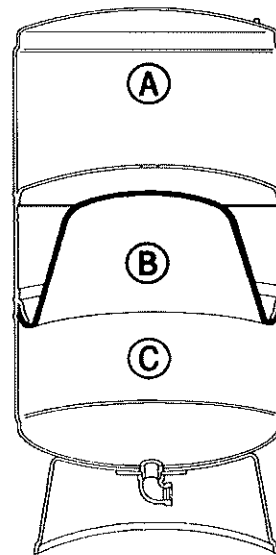
READ AND FOLLOW SAFETY INSTRUCTIONS.....	2	Typical Jet Pump Installation.....	4
Important Definition .....	2	MULTIPLE TANK INSTALLATION PROCEDURE .....	4
SAFETY INSTRUCTIONS.....	2	OPERATION.....	5
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INSTALLATION PROCEDURES .....	4	WARRANTY .....	6
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## FEATURES AND OPERATING CYCLES

### The Water Systems Tank Concept

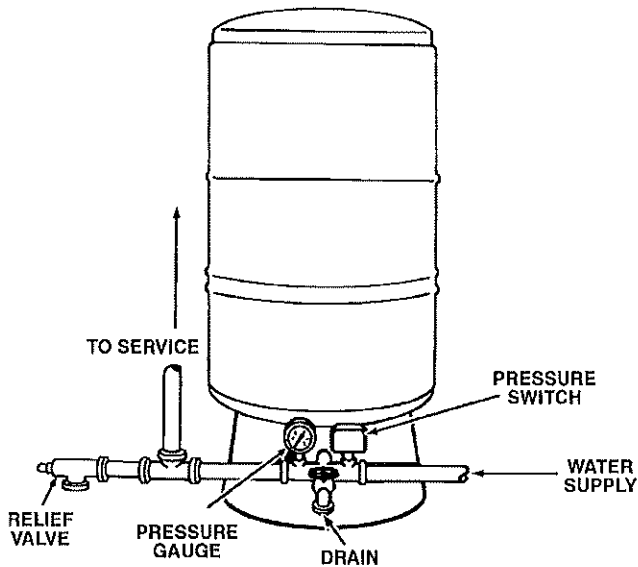
The water system tank does more than simply store water. It helps to protect the system components. A properly sized tank will provide adequate flow even when the pump is not running. It saves energy by reducing the number of pump starts. In addition, the water system tank provides increased system component life due to fewer pump cycles.

**WARR**  
WORR  
**WET**  
WET  
The water system tank consists of a steel tank (A) containing a sealed-in-place heavy duty diaphragm (B) which separates air from the water. The portion of the tank where water is stored (C) is lined to isolate water from the metal tank. This protects the tank from corrosion.



## INSTALLATION PROCEDURES

### Typical Submersible Pump Installation



The water system tank should be installed as close as possible to the pressure switch (24 inches or less) to reduce the adverse effect of friction loss and elevation differences.

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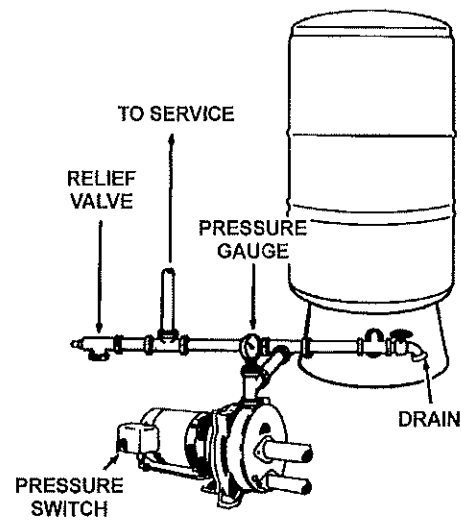
1. Disconnect electric power.

2. For installations replacing an existing water tank, drain system and remove old tank. On new system installation this step is unnecessary.

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3. Locate the water system tank on a firm, level surface with adequate drainage. Typical installations are shown in the following section.

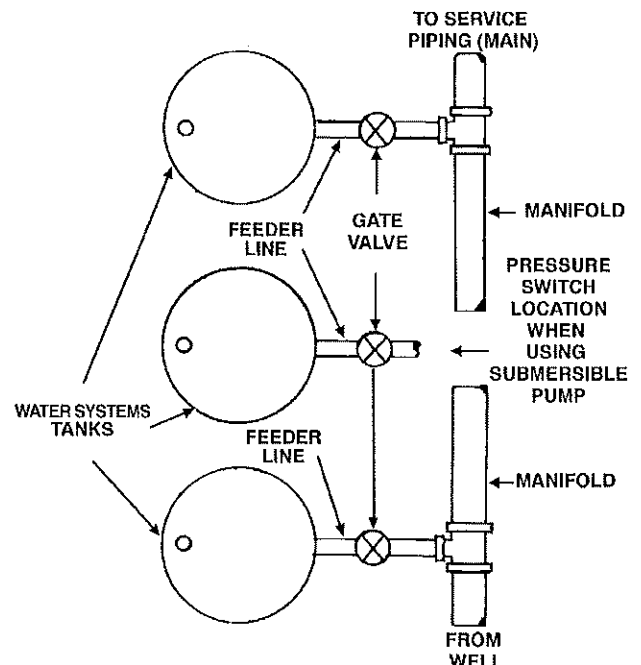
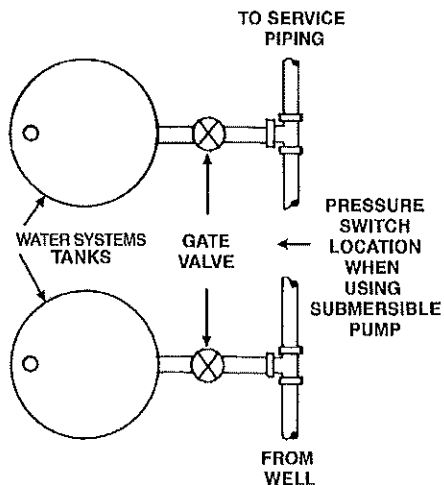
### Typical Jet Pump Installation



4. If your system is capable of exceeding a working pressure of 100 psig (typically submersible pumps), install a pressure relief valve (rated at 100 psig or less, but greater than turn off pressure) in the system near the tank. The valve should be the same pipe size as the tank outlet. This is not necessary on tank-mounted jet pump units.
5. Connect tank to the pump discharge line using the same size pipe as the pump tap, or larger. WARNING: Hold 90° tank street elbow with wrench when threading and tightening connecting pipe.
6. The tank should be flushed 5 times prior to household use, see Operation section.

## MULTIPLE TANK INSTALLATION PROCEDURE

Water system tanks can be connected together to increase the supply of usable water (drawdown). Two tanks of the same size will double the supply and three tanks will triple the supply. When using a high capacity pump, the manifold and pressure switch assembly must be installed in the pipe line as close to the center of the tanks as possible. Manifold and main should be 2 times the size of the feederline.





## Pump Tanks

5-Year Limited Warranty\*

### Metal Air Valve

### 100 PSI Working Pressure

### Multiple Head Construction

- Provides added structural strength and more capacity within the same diameters

### Interior Epoxy Coating

- Permanently bonded to the tank shell to provide the ultimate protection on the water side of the tank

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### Butyl Rubber Parabolic Diaphragm

- Ensures long life
- Prevents rubbing on the tank wall or rolling over on itself

### Positive Lock Retention System

- Quality controlled compression in the diaphragm connection eliminates loss of air or water leaks in the tank

### Ultra-UV Exterior Powder Coat

- Tough powder coating provides the ultimate exterior protection and is undercoated with zinc phosphate for the highest corrosion resistance



Certified to  
NSF/ANSI 61-G and 372

\*For complete warranty information consult the written warranty of American Water Heaters found at [www.americanwaterheater.com](http://www.americanwaterheater.com), or call (800) 999-9515.



## Pump Tanks

### Diaphragm Pump Tanks

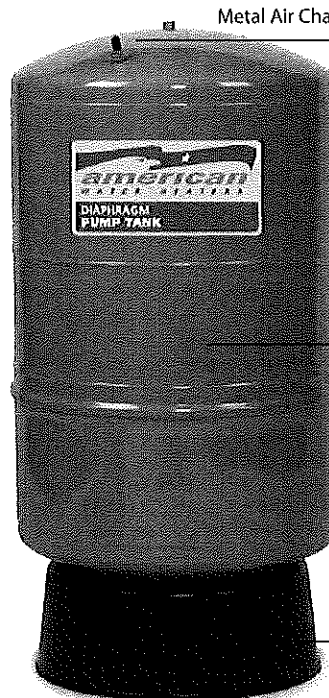
American Diaphragm Pump Tanks are designed for great flexibility in installation and years of trouble-free service. They offer numerous advantages over competitive tanks. Smooth, dependable diaphragm design and operation provides precise control of system operation cycles.

Free-standing and in-line vertical tanks are available, as well as horizontal tanks with universal pump mounting bracket.

#### In-Line Tanks

APTI Series tanks, available in 2-, 5-, and 7-gallon sizes, are designed to be supported by system piping.

(See Typical Installations, page 4)



Metal Air Charge Valve is on all models

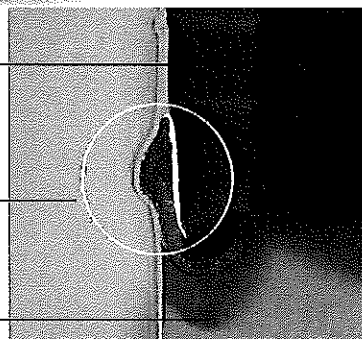
Ultra-UV exterior powder coating provides the ultimate protection and is undercoated with zinc phosphate for the highest corrosion resistance

Durable polymer rotating base resists corrosion and allows easy plumbing alignment

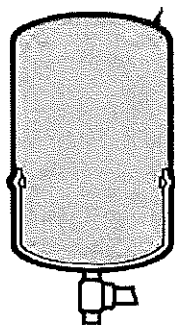
Butyl rubber parabolic Diaphragm ensures long life

Positive Lock Retention System quality controlled compression in the diaphragm connection eliminates the loss of air or water leaks in the tank

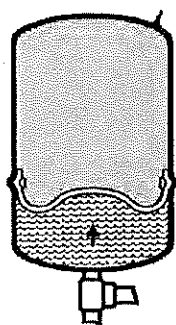
Interior Epoxy Coating permanently bonded to the tank shell to provide the ultimate protection on the water side of the tank



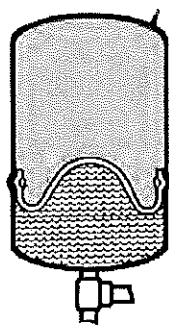
### Pre-Pressurized Pump Tank Operation Cycles



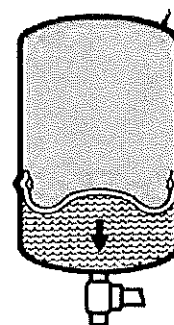
**Start-Up Cycle\***  
Diaphragm is pressed against the bottom of the chamber.



**Fill Cycle\***  
Water is pumped into the reservoir, which forces the diaphragm upward into the air chamber.



**Hold Cycle\***  
Pump-cutoff pressure is attained. Diaphragm reaches its uppermost position. Reservoir is now filled to its rated capacity.



**Delivery Cycle\***  
Pump remains shut off while air pressure in top chamber forces diaphragm downward, delivering water to system.

\* Based on 30-50 PSI operating system.



## Pump Tanks

### Sizing

The charts below allow you to easily select the right American APT Series tank for standard-size pumps between 2-1/2 and 30 gallons in capacity and for 20-40 PSI, 30-50 PSI and 40-60 PSI pressure ranges. Minimum run times shown (from start-up) are 1 minute, 1-1/2 minutes and 2 minutes. For example, for a system that delivers 12 GPM at 30-50 PSI, with a minimum run time of 1 minute, Chart 1 indicates that the proper tank is the APT-45.

**Chart 1 – APT Series Free-Standing Tank Selection Chart**

Pump GPM	System Pressure Ranges (PSI)								
	20-40			30-50			40-60		
	Minimum Run Times (Minutes)								
	1	1.5	2	1	1.5	2	1	1.5	2
2.5	APT-14	APT-14	APT-14	APT-14	APT-14	APT-20	APT-14	APT-20	APT-20
5	APT-14	APT-20	APT-45	APT-20	APT-32	APT-32	APT-20	APT-32	APT-45
7	APT-20	APT-32	APT-45	APT-32	APT-45	APT-45	APT-32	APT-45	APT-65
10	APT-32	APT-45	APT-86*	APT-32	APT-65	APT-65	APT-45	APT-65	APT-86*
12	APT-32	APT-65	APT-86*	APT-45	APT-65	APT-86*	APT-45	APT-65	APT-86*
15	APT-45	APT-65	APT-86*	APT-65	APT-86*	APT-119	APT-65	APT-86*	APT-119
20	APT-65	APT-86*	APT-119	APT-86*	APT-119	(2)APT-65	APT-86*	APT-119	(2)APT-86*
25	APT-86*	APT-119	(2)APT-86*	APT-86*	(2)APT-86*	(2)APT-86*	APT-119	(2)APT-86*	(2)APT-119
30	APT-86*	(2)APT-86*	(2)APT-86*	APT-119	(2)APT-86*	(2)APT-119	APT-119	(2)APT-119	(2)APT-119

*WORK*  
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**Chart 2 – Drawdown Volume Multiplier (Approximate)**

Pump Shutoff Pressure (PSI)	Pump Start-Up Pressure (PSI)							
	10	20	30	40	50	60	70	80
20	.26							
30	.41	.22						
40		.37	.18					
50		.46	.31	.15				
60			.4	.27	.13			
70			.47	.35	.24	.12		
80				.42	.32	.21	.11	
90				.48	.38	.29	.19	.10
100					.44	.35	.26	.17

*WET*  
WET

**Chart 3 – Drawdown in Gallons**

Model No.	Volume In Gallons	20-40	30-50	40-60
APTI-2	2.0	0.7	0.6	—
APTI-5	4.6	1.7	1.4	—
APTI-7	7.3	2.7	2.3	—
APTI-14	14.0	5.2	4.3	3.8
APT-14	14.0	5.2	4.3	3.8
APT-20	20.0	7.4	6.2	5.4
APT-32	32.0	11.5	9.6	8.4
APT-45	45.0	16.7	13.9	12.1
APT-65	65.0	24.1	20.1	17.5
APT-85	85.0	31.5	26.7	22.9
APT-86	86.0	31.8	26.7	23.2
APT-119	119.5	44.2	37.0	32.3

If proper tank selection cannot be made using Chart 1, follow this procedure. First, find the "drawdown multiplier" by matching the pump start-up and shut-off pressures on Chart 2. For example, the multiplier for a 30-50 PSI pressure range is .31.

Next, insert the pump GPM capacity and desired minimum run time into this formula:

$$\frac{\text{Pump GPM} \times \text{Min. Run Time}}{\text{Multiplier}} = \text{Minimum Tank Volume Required}$$

To assume dependable drawdown volumes, and in keeping with present industry practice, drawdowns

are based on Boyle's Law. For example, using a 10 GPM pump, a one-minute minimum run time, and a 30-50 PSI pressure range, the formula is as follows:

$$\frac{12 \times 1}{.31} = 38.7 \text{ Minimum Tank Volume}$$

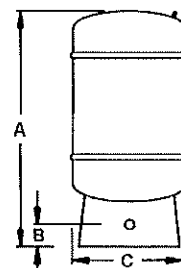
Then, using Chart 3, select the tank that has a minimum volume that meets or exceeds your minimum volume requirement and supplies adequate drawdown at the required pressure range. Minimum drawdown equals Pump GPM X Minimum Run Time. Therefore, in the above example, select the APT-45 45-gallon tank. It provides adequate drawdown at 30-50 PSI.



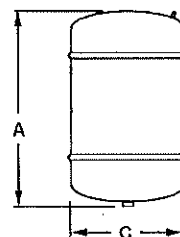
# Pump Tanks

MODEL	VOL. U.S. GAL	DRAW DOWN 30-50 PSI	CONN SIZE NPT INCHES	A INCHES	B INCHES	C INCHES	SHIPPING WEIGHT LBS
<b>FREE-STANDING PUMP TANKS</b>							
APT-14	13.9	4.3	1 F	24-15/16	2	15-3/8	23
APT-20	19.9	6.1	1 F	32-3/8	2	15-3/8	34
APT-26	25.9	8.0	1 F	39-9/16	2	15-3/8	43
APT-32	31.8	9.9	1 F	47-1/4	2	15-3/8	52
APT-45	45.2	13.9	1-1/4 F	36-9/16	2	22	64
APT-65	65.1	20.0	1-1/4 F	48-5/8	2	22	89
APT-85	84.9	26.2	1-1/4 F	60-11/16	2	22	113
APT-86	83.5	25.9	1-1/4 F	46	2-1/2	26	116
APT-119	115.9	35.9	1-1/4 F	61-5/16	2	26	161
<b>IN-LINE PUMP TANKS</b>							
APT-2	1.9	.6	3/4 M	10-3/16	—	8-1/4	5
APT-5	4.8	1.5	3/4 M	14-3/4	—	11	9
APT-7	7.3	2.3	3/4 M	21-1/16	—	11	14
<b>HORIZONTAL PUMP TANKS</b>							
APTH-7	7.3	2.3	3/4 M	12-7/8	21-1/16	11	16
APTH-14	13.9	4.3	1 M	18-1/4	21-1/16	15-3/8	25
APTH-20	19.9	6.1	1 M	18-1/4	28-1/2	15-3/8	36

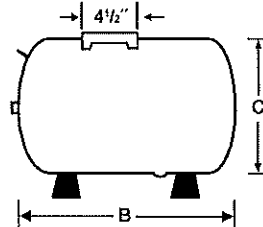
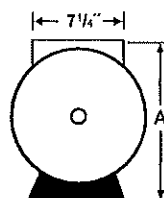
## FREE-STANDING



## IN-LINE



## HORIZONTAL

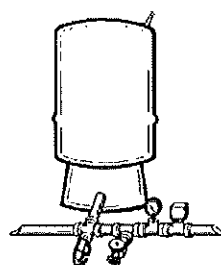


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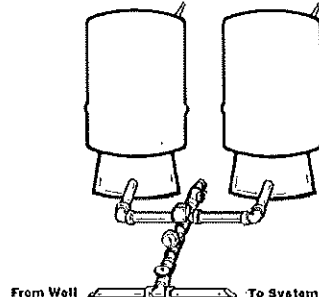
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### APT Free-Standing Series

The standard front-entry installation. Gauge, relief valve and pressure switch are installed in front of tank.



Single Installation

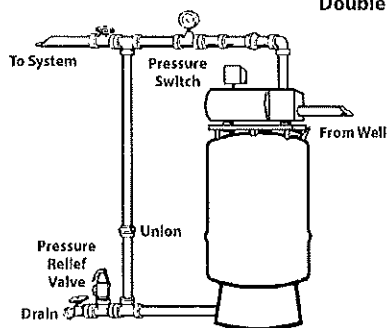


Double Installation

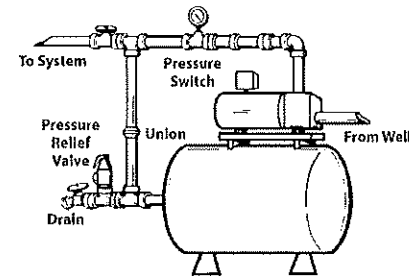
### APT Free-Standing Series with Pump Mounted on Tank\*

The pump can be mounted on the tank using a universal mounting base. The pump can be attached to the top of either a vertical or horizontal tank. For installation convenience, the horizontal series is available with pump mount and legs factory installed.

\*Pump mount bracket available.



Vertical Installation



Horizontal Installation

## Distributed By:

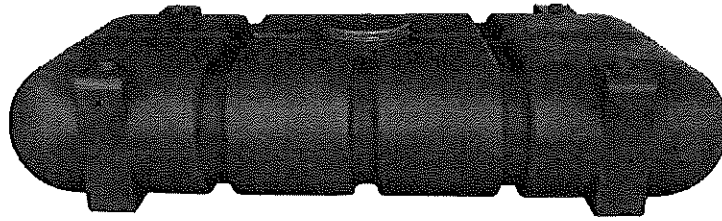
### Order Entry and Sales

500 Princeton Road (FEDEX, UPS)  
Johnson City, TN 37601-2030  
P. O. Box 4056 (Mailing)  
Johnson City, TN 37602-4056  
(800) 937-1037  
FAX (800) 581-7224

### Warranty and Service

500 Princeton Road (FEDEX, UPS)  
Johnson City, TN 37601-2030  
P. O. Box 1597 (Mailing)  
Johnson City, TN 37601  
(800) 999-9515  
FAX (800) 999-5210





Item	Description	
RS-WT450-LP	450-gallon low profile water tank	
RS-WT-550-LP	550-gallon low profile water tank	



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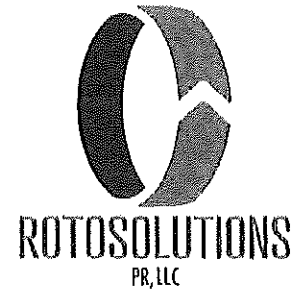
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Item	Description	
RS-WT90	90-gallon water tank - cylinder	
RS-WT125	125-gallon water tank -cylinder	
RS-WT200	200-gallon water tank-cylinder	
RS-WT400	400-gallon water tank-cylinder	
RS-WT500	500-gallon water tank -cylinder	
RS-WT600	600-gallonwater tank-cylinder	
RS-WT1000	1000-gallon water tank-cylinder	

Roto-molded polyethylene tanks are designed to provide exceptional strength and stress crack resistance. **ROTOTANKS** are durable, lightweight, easy to install and maintain. Most **ROTOTANKS** have molded in volume markers and convex bottom for improved drainage. The great majority of our ROTOTANKS have built in ribs around the cylindrical body for additional strength. These qualities make them the ideal alternative for your water needs and prolonged outdoor exposure. They are manufactured as a one-piece construction providing structural stability and leak resistance, while insulating the water from the elements found in the external environment.

All of ROTOTANKS are manufactured with a **MEDIUM DENSITY POLYETHYLENE** and **FDA APPROVED**. Also, all **ROTOTANKS** come in four standard colors: **White, Blue, Gray and Black**, with an inlet hole for level valve of **5/8"**, a top ventilation hole **5/8"**, and a bottom outlet fem thread of **1 1/4"**.

	Capacity Gallons	Part #	Type	Top Opening Size (In.)	Height (In.)	Width (In.)	Diameter (In.)	Length (In.)	Weight (Empty)	Weight (Full)	Wall Thick. Approx.
1	125	RS-WT-125	CYLINDRICAL	14"	40	-	35	-	40	1,082	0.180
2	150	RS-WT-150	VERTICAL	14"	65	-	27	-	42	1,125	0.180
3	200	RS-WT-200	CYLINDRICAL	14"	39	-	43	-	42	1,709	0.180
4	250	RS-WT-250	CYLINDRICAL	14"	27	-	62	-	63	2,063	0.180
5	400	RS-WT-400	CYLINDRICAL	14"	46	-	56	-	83	3,416	0.210
6	450	RS-WTH-450	HORIZONTAL	14"	48	45	-	68	110	3,693	0.210
7	500	RS-WT-500	CYLINDRICAL	14"	54	-	60	-	100	4,267	0.250
8	600	RS-WT-600	CYLINDRICAL	14"	52	-	64	-	120	5,117	0.280
9	1000	RS-WT-1000	CYLINDRICAL	14"	66	-	75	-	189	8,522	0.320
10	1000	RS-WTS-1000	STACKABLE	14"	67	-	81	-	300	8,633	0.320
11	450	RS-WTLP-450	LOW PROFILE	14"	24	57	-	120	151	3,886	-
12	550	RS-WTLP-550	LOW PROFILE	14"	25	61	-	123	180	5,096	-
13	800	RS-WT-800	HORIZONTAL	25.6"	65	60	-	74	400	5,120	.450
14	1650	RS-WT-1650	HORIZONTAL	25.6"	78	74	-	90	843	14,592	0.610
15	530	RS-ECO-530	CYLINDRICAL	21"	37	-	70	-	85	4,493	0.230
16	660	RS-ECO-660	CYLINDRICAL	21"	39	-	83	-	120	5,793	0.230
17	800	RS-ECO-800	CYLINDRICAL	21"	53	-	72	-	120	6,583	0.230
18	1200	RS-ECO-1200	CYLINDRICAL	21"	75	-	72	-	160	10,151	0.230



## ABOUT US

In 2017, ROTOSOLUTIONSPR,LLC inaugurated its rotomolding manufacturing plant with the acquisition of two large-size rotomolding machines and specially designed aluminum molds using the latest technology from Italy.

- o Carrousel-closed oven-type machines
- o Computer-controlled three-axis movement

## OUR PROMISE

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High-quality products, always.	Continuous Innovation.	Environmentally Conscious.
We offer high-quality products that meet or exceed the standards established by our industry. The continuous improvement of our processes and services allow us to effectively satisfy the needs of our customers.	We are growing and constantly evolving. We are at the fore front creating and using technologies that prove our competitiveness in the global market.	We are committed to the conservation of the environment by promoting recycling programs and developing products that protect the natural resources of our planet.

## Advantages of our product line: WATERTANKS

Polyethylene Plastic Material	Lightweight	Impact Resistance	Sun Light Resistance	FDA Approved Materials	Easy to Transport
Easy to Install	Threaded Top Cap	Water Level Indicator	Will not Corrode	Fused FPT plastic fittings	

# Daelim LH3750M

Metallocene Medium Density Polyethylene

**Daelim Poly**  
 대림폴리  
 Rotational Molding

## Characteristics

- Excellent Impact Strength
- Excellent Stiffness
- Excellent Surface Appearance
- Can decreasing cycle time

## Applications

- Water / Chemical tanks
- Foaming tanks
- Parts for Pipe Systems and Underground

## Processing Recommendation

- Stock Temp. : 200 ~ 250℃

## Specification data

- Meets FDA Regulation 177.1520

## Nominal Physical Properties

Properties	Test Method	Unit	Value
Density	ASTM D1505	g/cm <sup>3</sup>	0.9380
Melt Index (190℃, 2.16 kg)	ASTM D1238	g/10min	5.0
Additives	-	-	AO, UV
Melting Point	ASTM D3418	℃	124
Tensile Strength at Yield	ASTM D638	kg/cm <sup>2</sup> (MPa)	210(20.6)
Elongation at Break	ASTM D638	%	>800
Heat Deflection Temperature(0.45MPa)	ASTM D645	℃	70
Flexural Modulus	ASTM D 790	kg/cm <sup>2</sup>	8500
Hardness	ASTM D785	Shore D	65
Dart Impact Strength(5mm, -40℃)	ISO 6603-2(Impact Energy 180J)	-	Not Broken
ESCR (100% Igapal, P50)	ASTM D1693	hr	>1,000

Remark> 1. Additive : AO (Anti-Oxidant), UV (UV Stabilizer)

2. Physical properties reported herein were determined on compression molded specimens prepared in accordance with procedure C of ASTM D1928



TEL : 82-2-3700-3341, FAX: 82-2-753-4958  
 Distributed By Daelim Corporation  
 TEL : 82-2-3700-3312, FAX : 82-2-771-0020

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# WAYNE®

MODEL: SWS50, 1/2 HP, MODEL: SWS75, 3/4 HP, MODEL: SWS100, 1 HP

WELL PUMP

## WAYNE Shallow Well Jet Pump

### CONSTRUCTION

- Corrosion Resistant All Cast Iron Motor Housing
- 3/4 in. NPT Discharge
- Reliable Thermoplastic Impeller for Maximum Water Flow
- Dual Voltage 120 V / 240 V and a 30/50 Pressure Switch included

### BENEFITS

- This pump is assembled in the USA to deliver dependable performance that lasts for years.
- Fresh, clean, water is important to you and our pumps are designed to dependably deliver it to your home or business.
- Self priming and designed to reliably pump water from 25 ft. deep wells, or shallower.
- ✓ SWS50: Pump Part #56907
- SWS75: Pump Part #56914
- SWS100: Pump Part #56921

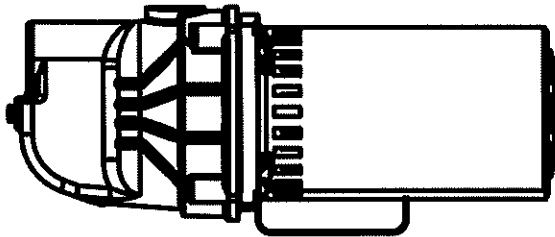
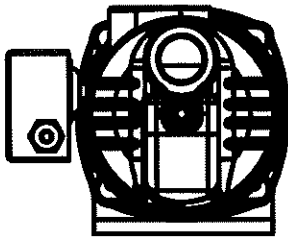
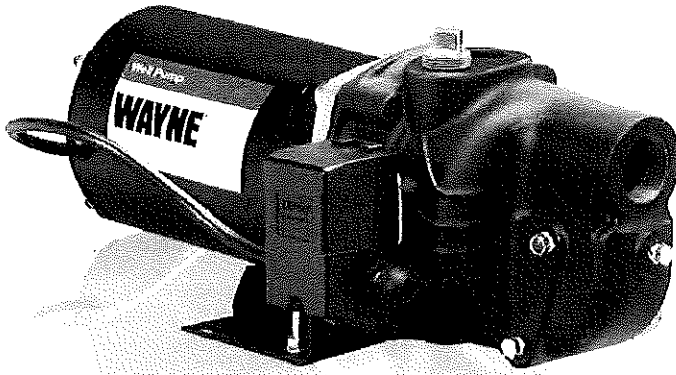
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# WAYNE SHALLOW WELL JET PUMP

MODEL: SWS50, 1/2 HP, MODEL: SWS75, 3/4 HP,  
MODEL: SWS100, 1 HP



## PUMP SNAPSHOT

- **HP** ✓ SWS50, 1/2 HP | SWS75, 3/4 HP | SWS100, 1 HP
- **Construction** - Cast Iron
- **Switch Type** - N/A
- **Motor** - 120/240V Split Phase Oil-Filled
- **Impeller** - Centrifugal
- **Intake** - 1 1/4 in. NPT
- **Discharge** - 3/4 in.
- **Submersible** - N/A
- ✓ **SWS50 UPC** - 040066106117
- **SWS75 UPC** - 040066106131
- **SWS100 UPC** - 040066106155

## PUMP SPECIFICATIONS

- **Length** - 24 In.
- **Width** - 12 1/2 In.
- **Height** - 8 In.
- **Weight** - 43.6 Lbs.
- **Power Cord** - Wire in Field

## PERFORMANCE

- ✓ **SWS50** - 1/2 HP - Max Flow 711 GPH: 674 GPH @ 5ft.
- **SWS75** - 3/4 HP - Max Flow 779 GPH: 750 GPH @ 5ft.
- **SWS100** - 1 HP - Max Flow 1084 GPH: 1022 GPH @ 5ft.

## FLOWRATE: GALLONS PER HOUR

✓ SWS50 - 1/2 HP	GPH @ 5'	GPH @ 10'	GPH @ 15'	GPH @ 20'
Gal/Hr @0 Max Flow 711	674 @ 30 PSI	638 @ 30 PSI	601 @ 30 PSI	565 @ 30 PSI
SWS75 - 3/4 HP	GPH @ 5'	GPH @ 10'	GPH @ 15'	GPH @ 20'
Gal/Hr @0 Max Flow 779	750 @ 30psi	721 @ 30 PSI	691 @ 30 PSI	662 @ 30 PSI
SWS100 - 1HP	GPH @ 5'	GPH @ 10'	GPH @ 15'	GPH @ 20'
Gal/Hr @0 Max Flow 1084	1022 @ 30 PSI	960 @ 30 PSI	899 @ 30 PSI	837 @ 30 PSI

PERFORMANCE: SWS100, SWS75, SWS50							
MODEL	PSI	MAX FLOW	5'	10'	15'	20'	25'
SWS100	30	1084	1022	960	899	837	775
	40	799	737	675	613	551	490
	50	513	451	389	328	266	204
SWS75	30	779	750	721	691	662	633
	40	644	615	586	557	528	499
	50	510	481	451	422	393	364
✓ SWS50	30	711	674	638	601	565	529
	40	543	506	470	433	397	361
	50	375	338	302	265	229	193



## 3 YEAR LIMITED WARRANTY

- Assembled in USA with Foreign and Domestic Parts
- 30/50 Pressure Switch Included





GOVERNMENT OF PUERTO RICO  
DEPARTMENT OF HOUSING

## Attachment B

### SCOPE OF WORK

#### Request for Proposals

**PV Systems, Water Storage System Design, Acquisition, and Installation Services**

**Community Installations Subprogram**

**Community Energy and Water Resilience Installations Program**

**Community Development Block Grant – Mitigation**

**Puerto Rico Department of Housing**

**CDBG-MIT-RFP-2023-02**

### 1. Introduction

The Puerto Rico Department of Housing (**PRDOH**) is issuing this Request for Proposals (**RFP**) to procure **PV Systems, Water Storage System Design, Acquisition, and Installation services** for the Community Development Block Grant – Mitigation (**CDBG-MIT**) grants, under the current and subsequent Action Plan. Proposers must understand the CDBG-MIT program initiatives, goals, and regulations.

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This document defines the work and requirements the Selected Proposer(s) must perform to support PRDOH in the design and build of the Community Energy and Water Resilience Installations – Community Installations Subprogram (**CEWRI-CI**) under the CDBG-MIT grants.

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#### 1.1 CEWRI CI Program

This Program assists eligible households in pre-selected, targeted communities with a need for alternative, renewable energy installations, and water storage systems to mitigate the effects of Energy and Water lifelines failures or disruptions. The CEWRI-CI Program provides homeowners with energy and water efficiency improvements to promote resilience during emergencies by installing Photovoltaic System (**PVS**) with battery backup and a Water Storage System (**WSS**).

A more detailed description of the CDBG-MIT CEWRI-CI Subprogram is included in the CDBG-MIT Action Plan approved by HUD, available on the CDBG-MIT Program Website (<https://recuperacion.pr.gov/en/action-plans/action-plan-cdbg-mit/>) and its approved Guidelines available on the Program Website (<https://recuperacion.pr.gov/en/cewri-ci/>).

The PRDOH anticipates awarding the Contract for an initial term of **two (2) years**. The PRDOH may, at its sole discretion, extend the contract term for **one (1) year** extensions upon mutual written agreement of the parties. If additional CDBG-DR and CDBG-MIT funds are allocated to Puerto Rico during the Contract's life, the Contractor for the PV Systems, Water Storage System Design, Acquisition, and Installation may be assigned to work on those future federal grants awarded. There is no guarantee of a minimum level of services that the PRDOH may request under the Contract.

## 2. PRDOH's Reservation of Rights

The PRDOH reserves the right, without limitations, to:

- (i) Reject any or all proposals, waive any informality in the RFP process, or terminate the RFP process at any time, if deemed to be in its best interests.
- (ii) Reject and not consider any proposal that does not meet the requirements of this RFP, including but not necessarily limited to, incomplete proposals and/or proposals offering alternate or non-requested goods.
- (iii) Cancel this solicitation if PRDOH deems that doing so is in the Public Interest, and, at the discretion of PRDOH, reissue the RFP or another version of it, if necessary.
- (iv) PRDOH shall have no obligation to compensate any proposer for any costs incurred in responding to this RFP.
- (v) Reduce or increase estimated or actual quantities in whatever amount necessary without prejudice or liability to, if:
  - a. Funding is not available.
  - b. Legal restrictions are placed upon the expenditure of monies for this category.
  - c. PRDOH's requirements in good faith change after the award of the Contract.
- (vi) Make an award to more than one Proposer based on ratings.
- (vii) Require additional information from all suppliers to determine the level of responsibility.
- (viii) Contact any individuals, entities, and/or organizations that have had a business relationship with the proposer, regardless of their inclusion in the reference section of the proposal's submittal.
- (ix) In the event any resulting contract is prematurely terminated due to nonperformance and/or withdrawal by the Contractor, PRDOH reserves the right to:
  - a. seek monetary restitution (to include but not limited to withholding of monies owed or the execution of the payment and performance bond) from the Contractor to cover costs for interim services and/or cover the difference of a higher cost (difference between terminated Contractor's rate and new company's rate) beginning the date of Contractor's termination through the contract expiration date.
- (x) Amend the Contract(s) of the Selected Proposer(s) to, among others, extend its original duration, as further explained in the RFP, or to extend the scale of its scope to include work under subsequent CDBG-DR and CDBG-MIT action plans as related to the services requested herein, or to reduce the scale of its scope to decrease work as a consequence of underperformance or inexcusable delays related to the services requested herein.
- (xi) Contract with one or more qualified Proposers as a result of the selection of this RFP.
- (xii) Negotiate any price from the awarded Proposer(s) in response to a specific order under this solicitation.

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- (xiii) Modify the quantity of the listed items and/or services during the term of the Contract in compliance with policies and procedures.
- (xiv) Withdraw from the contracting process with the Selected Proposer(s), if the Selected Proposer(s) does not provide the required contract documents, including insurance requirements, within **ten (10) business days** of contract Award Notice.

### 3. Overview

The PRDOH is issuing this Request for Proposal to procure highly qualified and skilled Designers and Contractors to provide the PV Systems, Water Storage System Design, Acquisition, and Installation services and serve the Program as a Contractor, single source responsibility entity. The Selected Proposer(s) is expected to assess and propose solutions for the implementation and installation of the PVS, BSS, and/or WSS for each Participating Property. The proposed solutions shall consider factors such as budget limitations, cost estimates, current site conditions, necessary property improvements to achieve project goals, preliminary environmental review, risk mitigation project achievements, and other factors that may impact the project's implementation.

The installation of PV Systems, BSS, and WSS is specifically for the households residing in single-family structures as their primary residence in targeted communities, which will be eligible to receive an award of up to one hundred percent (100%) of the systems' cost or forty thousand dollars (\$40,000), whichever is lower.

The Selected Proposer(s) will be an integral part of the Program and will be required to work in harmony with other stakeholders such as PRDOH, Grant Management, Program Managers (PM), as well as other staff and contractors retained by the PRDOH for the implementation of the Program. The Selected Proposer(s) will be directly responsible for ensuring the accuracy, timeliness, quality, and completion of all tasks assigned under the Contract and providing applicants with the highest customer service standards.

The resulting Contract(s) will be awarded to the "Qualified Proposers" whose Proposals, conforming to the RFP, is (are) most advantageous to the PRDOH. The Scope of Work (**SOW**) presented is based upon circumstances existing at the time of its release. The PRDOH reserves the right to modify or delete the tasks listed and, if appropriate, add additional tasks prior to and during the term of the Contract. Upon Contract execution, the Contractor may be required to work outside of normal business hours to accommodate the Program(s) goals, production, and operational needs (i.e., weekends or evenings).

The PRDOH will outsource Program Management (PM) services for the implementation and the everyday administration of the program, projects, and case management. The PM will be responsible for the Contractor's contract management and administration, control, regulatory and statutory compliance oversight. The Program Managers will also be responsible for developing Environmental Review Records (ERR) and inspecting all construction works for the Program(s), among others.

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#### 4. Staff Requirements

The Selected Proposer(s) shall have or will secure, at its own expense, all personnel required to perform the services under the Contract. PRDOH expects the Selected Proposer(s) to provide competent and fully qualified staff authorized or permitted under federal, state, and local law to perform the Scope of Work under the Contract. The PRDOH reserves the right to request the removal of any staff not performing to standard.

The Selected Proposer(s) must always ensure the professional, architectural, engineering, and management work services are performed by licensed professionals with the proper qualifications, skills, and experience, necessary to perform such services, according to applicable federal and local rules (state and municipal) and regulations. All design documents shall be certified by a professional engineer or architect licensed to practice in Puerto Rico (as required by Law 173 of August 12, 1998). Also, the Selected Proposer(s) must comply with "Regulation No. 7796", and "Regulation No. 8080," as amended.

#### 5. Requirements

##### 5.1. General Requirements:

- The Selected Proposer(s) is expected to efficiently operate as a PV Systems, Water Storage System Design, Acquisition, and Installation team for correctness, completeness, compliance, and systematic project completions in a time-accelerated environment.
- All written means of communication (electronic or otherwise), emails, requests for information, questions, responses, design descriptions, text in drawings, reports, and others must be in English.
- The Selected Proposer(s) will conduct pre-installation assessments, technical evaluations, coordination, progress, and production meetings in coordination with Program(s) representatives. The frequency of these meetings will depend on the phase and volume of assigned Task Orders or upon Program operational needs. These meetings may be carried out in Spanish or English, depending on the participants.
- The price of equipment and installation shall include all expenses, including but not limited to site assessments, technical evaluation, load analysis, design drawings, technical specifications, permitting (if required), delivery, installation, commissioning, overhead, profit, fringe benefits, incidentals, and any other administrative fees.
- Obtaining all necessary federal, state, or municipal permits, certificates, or endorsements to close the rehabilitation work.
- Selective demolition, costs of labor, materials, supplies, tools, equipment, and any other expenses ancillary or required to complete the work shall be included in the PV Systems, Water Storage System Design, Acquisition, and Installation cost proposal under the Price Form.
- Cost of labor, materials, supplies, tools, equipment, and any other expenses ancillary or required for the repairs of the property shall be included in the PV

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Systems, Water Storage System Design, Acquisition, and Installation cost proposal under the Price Form.

- Specialty construction elements associated with historic properties, including coordination with the Puerto Rico Institute of Culture and the State Historic Preservation Office (**SHPO**), are included under this Scope of Work.
- The PRDOH, or Program, will not incur any incidental damages to property or additional cost and will not be responsible for reimbursement or expense related to per-diem, tolls, parts, or labor for equipment under warranty service.

### 5.2. Specific Requirements:

- The Selected Proposer(s) may be required to perform work ranging from electrical repair, plumbing repair, structural repair, or construction of unit light frame structure or similar structures to support PV modules and water storage system. The activities for each project will be based on the Program via an approved Task Order. This may include, but is not limited to, the following:
  - Evaluating the Program survey documents before and in preparation for the pre-installation assessment site visit and report.
  - Confirming, validating, or requesting to re-evaluate the Initial Project Intent.
  - Preparing a work plan and schedule for each project according to the Program approved scope of work and Task Order.
  - Providing architectural and engineering technical evaluation, reports, and consultation services, including pre-installation assessment, commissioning process, and final inspection site visits.
  - Providing architectural and engineering construction documents, submittals, and supplementary drawings for the system(s) roof-mounted, ground-mounted, or unit-light frame installation, including any associated electrical, plumbing, or structural repair works to complete the system installation.
  - Preserving properties of historic significance.
  - It may include, on a case-by-case basis, selective demolition for the system(s) installation at the exterior elements of the property.
  - Removing and disposing of demolition materials or existing debris.
  - Site clearance includes removal of stored material that may be a barrier to completing the system(s)' installation.
  - Electrical repairs to complete the PVS and BSS installation and utility interconnection.
  - Plumbing general repairs to complete the WSS installation to the existing utility connection from the residential structure to water distribution system.

### 5.3. Systems Requirements:

- The Selected Proposer(s) to provide services regarding Photovoltaic Systems (**PV Systems**) must have a minimum of five (5) years of experience within the renewable energy sector.

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- The Selected Proposer(s) to provide services regarding Water Storage System (**WSS**) must have a minimum of two (2) years of experience installing WSS.
- All technical support or any warranty servicing from the manufacturers must be generated and managed by the Selected Proposer(s) once contracted by the PRDOH.
- The Selected Proposer(s) must not provide equipment close to the end of life or may become unsupported by the manufacturer during the required warranty period. If any equipment becomes unsupported by the manufacturer, the Proposer will be obligated to replace the equipment with an equivalent that meets the applicable warranty period, with similar or better specifications than the original, without incurring any additional financial obligation from PRDOH.
- All prices submitted by the Selected Proposer(s) must include all expenses, including incidentals, taxes, delivery fees, construction fees, installation fees, profits, overhead, and other applicable administrative fees. The PRDOH will not cover any additional costs. Only the unit price submitted for the equipment and installation services will be considered.
- The PRDOH will not be responsible for reimbursement or expense related to per-diem, tolls, parts, or labor for equipment under warranty service.

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#### 5.4. Code Compliance:

- Design, construction, installation, and equipment shall comply with applicable building, mechanical, fire, seismic, structural, and electrical codes included in the Joint Regulation for the Evaluation and Grant of Permits Related to Developments, Land Use, and Business Operations (**Joint Regulation**), as amended. Proposers must abide by the "Joint Regulation," as amended, "Regulation No. 7796", "Regulation No. 8080," the Puerto Rico Civil Code in "Article 250" and "Article 252," and any other state regulation that regulates the installations within this Program or the equivalent regulation in place at the time of installation.
- The Selected Proposer(s) must install solar system equipment in compliance with Puerto Rico Residential Code 2018 (**PRRC**), National Electric Code (**NEC**), Puerto Rico Electrical Power Authority (**PREPA**), and Permit Management Office (**OGPe**, for its Spanish acronym) Regulations or the equivalent code in place at the time of installation.

#### 5.5. General Responsibilities:

The Selected Proposer(s) is responsible for delivering quality services in compliance with the project requirements. Also, it is the responsibility of the Selected Proposer(s) to:

- Hold the correct permits and licenses necessary to conduct business in Puerto Rico and the city where the project is taking place, and the Proposer must have qualified and licensed personnel as required by the Puerto Rico government to perform PV Systems and/or WSS installations.
- The Designer for the PV Systems must be a licensed engineer in compliance with Puerto Rico's Act Number 173 of August 12, 1988, with the Renewable Solar Energy Installer (Photovoltaic) Certificate from the Public Energy Policy Program (**PEPP**) under the Department of Economic Development and Commerce (**DDEC**, for its Spanish acronym). Must have at least five (5) years of experience performing PV system design. Such a designer will also be part of the Pre-Installation Assessment team.
- PV Systems installers must be a professional with the Renewable Solar Energy Installer (Photovoltaic) Certificate from the Public Energy Policy Program (**PEPP**) under the Department of Economic Development and Commerce (**DDEC**, for its Spanish acronym).
- The Designer for the WSS must be a licensed architect or licensed engineer in compliance with Puerto Rico's Act Number 173 of August 12, 1988. Must have at least two (2) years of experience performing WSS design. Such a designer will also be part of the Pre-Installation Assessment team.
- Uphold a professional demeanor while on a job site.
- Coordinate with PRDOH-selected Program Managers (**PMs**) the tasks related to this Scope of Work.
- Coordinate with the selected PM to Conduct a Pre-Installation Assessment. This action will provide the Designer with the necessary data to perform the design and/or to determine what remediation will be needed for the installation.
- Perform a Pre-Installation Assessment site visit.
- Conduct a pre-award site visit. Assist the PMs during the applicant award process. The Proposer will be responsible for clarifying to the owner any design-related clarification that might be needed.
- Perform work after the corresponding reviews, approvals, and or notices to proceed are issued by the selected PRDOH Program Manager.
- Perform work as specified in accordance with all project requirements and all applicable laws and codes.
- Dispose of all materials in a safe manner in accordance with all local and federal regulations.
- Perform commissioning tests and correct any findings. Corrections will be paid by the Proposer, and PRDOH will not reimburse for them.
- Participate in closeout inspections and address findings.

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- Work with PMs to ensure the project is completed within the project timeline and budget while minimizing disturbance.

## 6. Project Types Description

Ala de la Piedra Community is a Barrio located in West Orocovis in Puerto Rico. Given the locations of these households and the diversity of construction types, including the diverse topographic conditions of each, installation types and design recommendations were defined and classified based on different house and site condition types.

The Program has identified the households' existing conditions and needs and the construction types, including the diverse topographic conditions of each. As a result, the Program design recommendations were defined and classified based on different house and site condition types.

### - PV System Types:

- Type A: Standard rooftop mounted photovoltaic system (PV) with good roof conditions.
- Type B<sup>1</sup>: Ballasted ground-mounted photovoltaic system (PV). PV Ballast system must be mechanically attached to avoid ground disturbance (no permit is required if structure is less than 3' high, but environmental review is needed. Refer to CEWRI-CI Program Guidelines for levels of Environmental Review).
- Type C1<sup>1</sup>: Attached to housing unit-light frame structure to hold PV (requires a permit, environmental review, and abatement if significant paint disturbance is more than 20 sq. ft. of the exterior surface).
- Type C2<sup>1</sup>: Stand-alone light frame structure to hold PV (requires permit and environmental review).
- Type D<sup>2</sup>: PV in pole system (requires permit and environmental review but no abatement) and WSS on existing pad or prefabricated pad if space is available.

### - Battery Backup System (BSS):

- All PV system types will include one of the following BSS capacities:
  - 9 kWh/day Battery Storage
  - 12 kWh/day Battery Storage

### - Water Storage System (WSS):

- WSS installations are expected to occur mostly on rooftops if the structure allows it. Where rooftop installation is not feasible, WSS will be installed at an existing pad or prefabricated pad.

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<sup>1</sup> These PV system types are considered for those houses where the Roof has no space or structural support for PV with BSS and/or WSS installation.

<sup>2</sup> This PV system type is considered when the roof has no space or structural support for PV with BSS and WSS installation, and additionally the property also lacks space to build a structural frame for PV installation.

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- WSS capacities:
  - 300 gallons
  - 400 gallons
  - 500 gallons

## **7. Photovoltaic System (PV System)**

### **7.1. Pre-Installation Assessment:**

The Selected Proposer(s) must be responsible for the Pre-Installation Assessment of each project site where the installation will be performed. A certified installer, a licensed professional engineer, and/or a licensed architect in Puerto Rico with the expertise of five (5) years or more in the Photovoltaic system industry and at least two (2) years of experience performing WSS design shall conduct the assessment. Assessment includes but is not limited to the following activities:

- Evaluate the roof capacity and property surroundings to support the PV system and WSS. A complete evaluation shall provide information on the property, shading study, and other required studies to allow the system to function correctly at the installation site. The Scope of Work generated shall detail the installation plan for the dwelling unit to support its installation and full functionality.
- Assess the home's interior and exterior elements and determine their conditions to facilitate the installation of conduits and electrical equipment. Home interior and exterior elements may include (but are not limited to):
  - Structural, electrical, plumbing, and HVAC systems installed in the roof.
  - Main Distribution Panelboard
  - Branch circuits
  - Exterior Shade Element
  - Lightning protection
  - Ground installation or existing condition
  - Electrical service entry, including overhead wires, electric meter, service entry conductor.
  - Other relevant components
- After examining the home elements and determining their condition, other considerations may include (but are not limited to) home site elements:
  - Site Restrictions
  - Site Accessibility
  - Yards and courts
- Structural verification: Verify the roof's load capacity to support the equipment load for those roof system(s)' installation, home's exterior elements for attached unit-light frame, stand-alone light frame, or ballasted ground-mounted system, and determine their conditions. Home external elements may include (but are not limited to):

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- Roof weatherproofing and covering, including asphalt shingles, wood shingles or shakes, metal roofing, cement shingles, built-up roofing, single-ply membranes, and roll roofing, among others.
- Skylights
- Gutters and downspouts
- Parapets and gables
- Existing concrete pad(s)
- Site conditions

The structural verification shall be conducted by a licensed engineer with a structural engineering degree or studies.

– Equipment Location

- Determine the best locations for the PV System and all components per designer and manufacturer's specifications.
- In the Pre-Installation Assessment report and Scope of Work, the Selected Proposer(s) must clearly define the location of the PV System and all components in accordance with applicable codes.

**7.2. PV System Design:**

- The Selected Proposer(s) must design a photovoltaic system with battery backup and water storage for single-family homes. The design would vary based on defined project types. The Selected Proposer(s) shall adhere to the following design guidelines:
  - A licensed professional structural engineer must certify that the area for the selected installation option complies with the structural requirements and capacity for the installation of the PV System and WSS, and that the proposed system meets the code requirement and the requirement of this RFP.
  - System layout must meet local fire department, code, and ordinance requirements for roof access.
  - The PV System installation must not interfere with roof drains, water drainage, expansion joints, air intakes, electrical and mechanical equipment, or antennas.
  - The Racking Structure needs to be corrosion-resistant and meet applicable local building code requirements concerning rain, wind, and earthquake factors.
  - All penetrations and structural connections associated with supports and conduit shall be kept to a minimum and waterproofed.
  - The roof penetration and roof connections shall be warranted for weather tightness from the installer, including parts and labor (see Section 10 in this document for warranty details).

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### **7.3. Award Visit:**

For additional information, refer to Section 9, Other Tasks, applicable for PV System and Water Storage System services.

### **7.4. Permits:**

The Selected Proposer(s) must obtain all required permits and licenses for the project. Also, the Selected Proposer(s) must be responsible for any certification and/or notification to the applicable state agencies regarding the services to be provided to each project, including interconnection certifications and fees in accordance with Act 17 of April 11 of 2019 ("Ley de Política Pública Energética de Puerto Rico"). All fees associated with the permits, notifications, and licenses are the responsibility of the Selected Proposer(s).

Any additional documentation required, or corrections of deficiencies identified by Puerto Rico Utility Electric Provider (PREPA), the Transmission and Distribution (T&D) Operator (LUMA), or any other permitting agencies after the certification and notification required by the Program must be addressed and brought to a conclusion by the Selected Proposer(s) at no additional cost to PRDOH.

### **7.5. PV System Installation Service:**

- The Selected Proposer(s) must be responsible for acquiring all permits and endorsements for system installation, system operation, and system interconnection in accordance with Act 17 -2019 ("Ley de Política Pública Energética de Puerto Rico").
- For the Installation of the PV System, the Selected Proposer(s) must design, supply, install, and commission the PV System. Installation costs shall be standardized to accommodate installation across various types of single-family homes within the same project type. Inverters and batteries shall be installed in a shaded location and shall not be exposed to direct sunlight.
- Install materials following the manufacturer's requirements.
- Provide all labor, materials, tools, equipment, and services required to complete the project as specified.
- Responsible for the cost of all items required for a complete operating system.
- The Selected Proposer(s) must be obligated to maintain a torque log of the installations, following designers' specifications.
- No material should be installed if:
  - Materials are not compatible with existing conditions.
  - Installation of materials violates equipment warranty.
  - Installation is not to code or industry standard.
  - Such are not in compliance with the conditions established by the program, federal or state regulations, or this RFP.

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- The PV System installations shall follow the best installation practices described by the National Renewable Energy Laboratory (**NREL**) in the following documents or any other industry-related document:
  - Solar Photovoltaic in Severe Weather: Cost Consideration for Storm Hardening PV Systems for Resilience
  - Solar Photovoltaic Systems in Hurricanes and Other Severe Weather

#### **7.6. Pre-Inspection Package:**

- Perform Commissioning and Inspection following the current industry standards. The Commissioning should verify that the project is performing as per project design.
- A qualified professional shall perform the Commissioning of the entire PV system and WSS. This data shall be used to confirm the proper performance of the system(s). Performance tests shall be conducted at the final commissioning/acceptance testing.
- After completion of the Commissioning, the Selected Proposer(s) will be responsible for submitting a Pre-Inspection Package with the following reports to be submitted to the PM before Inspection:
  - Commissioning Report
  - Design Drawings
  - Design Specifications
  - Submittals Certifications
  - Credentials of the Design Team
  - Warranties

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#### **7.7. Inspection:**

For additional information, refer to Section 9, Other Tasks, applicable for PV System and Water Storage System services.

#### **7.8. Additional Services:**

In addition to the traditional Design, Permitting, Installation, and Commissioning services included in this Scope of Work, some projects may require additional services, due to unforeseen conditions for the Contractor to deliver a complete and thorough design. These are considered Additional Services by PRDOH. For such services, the Contract will include an Allowance.

Whenever Additional Services are required, the Contractor shall develop an Additional Service Work Plan, including a justification of need for the service, the scope of work, the credentials of the staff to perform the services, a schedule, the costs, and a list of deliverables to be prepared. The Additional Service Work Plan shall be submitted by the Contractor to the PRDOH through a Request for Approval (RFA) for approval prior to the Contractor performing the services. PRDOH will evaluate each Additional Service for need and cost reasonableness and, if determined to be of need and in the best interest of the project, will approve the performance of the services by the Contractor. No Additional Service shall be performed by the Contractor without the written approval of PRDOH.

If the cost of any Additional Services is more than \$10,000 (the micro-purchase procurement threshold), then the Contractor shall submit to PRDOH at least three (3) economic proposals for the Additional Services. These three (3) economic proposals must be from different Subcontractors for the performance of the Additional Services. One of the economic proposals may consider the performance of the Additional Services with the Contractor's staff, if the Contractor has the internal capacity to perform them.

Additional Services include, but are not limited to:

- Unforeseen conditions related to electric power utility connections.
- Unforeseen conditions related to electric utility repairs.

All Additional Services shall be prepared in compliance with applicable federal, state, and local codes, regulations, and laws, and whenever applicable, shall be prepared and certified by competent professionals with the proper authorizations to perform the work.

#### **7.9. Technical Specifications for PV systems:**

- All PVS and BSS equipment must be duly certified in accordance with Section IV of Regulation No. 7796. Equipment that requires certification prior to installation includes photovoltaic modules, inverters, charge controllers, batteries, and other equipment for a renewable energy generation system in Puerto Rico.
- Batteries used for BSS shall have lithium-ion chemistry, but PRDOH may approve additional battery technologies.
- The Selected Proposer(s) shall perform all professional services necessary to provide applicants with a complete design of the proposed project. The system shall be designed and engineered to maximize the solar energy resource, considering the residents' electrical demand and load patterns, proposed installation site, and available solar resources. After concurrence of a final design by PRDOH's Program Manager, Selected Proposer(s) shall provide all necessary materials, equipment, and labor to complete the PV System installation and interconnection with the electrical grid in accordance with Act 17 of April 11 of 2019 ("Ley de Política Pública Energética de Puerto Rico").
- The Selected Proposer(s) must also provide and install a manual transfer switch to allow the system operation in a stand-alone mode.
- The Selected Proposer(s) must provide and install a lightning arrestor as part of each system installation.
- The Selected Proposer(s) must also provide written instructions and procedures for shutdown and start-up activities for all system components to the applicant.
- Photovoltaic (PV) Modules

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- PV modules shall be a commercial off-the-shelf product and must be OGPe Certified.
  - PV modules shall have a 25-year limited warranty to generate no less than 80 percent of rated output under Standard Test Conditions (**STC**). PV modules that do not satisfy this warranty condition shall be replaced.
  - Modules shall be through-bolted to the underlying racking; top-down clamps shall not be used under any circumstances unless the Designer specifies the contrary.
  - The PV system shall be physically attached to the building roof and tilted 5 to 10 degrees to the south.
- Inverter(s)
- Inverters shall be a commercial off-the-shelf product.
  - The inverter shall have, at a minimum, the following features:
    - OGPe Certification
    - UL/ETL<sup>2</sup> listed
    - Peak efficiency of 96 percent or higher
    - The inverter shall have operational performance indicators, built-in data acquisition, and remote monitoring.
    - Warning labels shall be posted in compliance with local and federal regulations.
    - Operating instructions shall be posted on or near the system and on file with facilities operation and maintenance documents.
    - Provide detailed instructions on how to turn off the equipment.
    - The inverter shall be 120/240 V split phase.
    - The inverter must provide a Pure Sine Wave.
- Electrical Wiring
- Areas where wiring passes through ceilings, walls, or other areas of the residence shall be adequately restored, booted, sealed, and returned to their original condition.
- Structural Components
- All structural components shall be non-corrosive (preferably marine stainless steel or aluminum). All hardware shall be marine stainless steel or aluminum. All components shall be designed to obtain a minimum 20-year design life.
  - All connections shall be bolted and torqued to the specified value. Under no circumstances shall clamping systems or self-tapping sheet metal screws be used to hold:
    - Module frame to underlying structural frame member
- Backup Storage System

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<sup>2</sup> Acronyms stand for the following respectively: Underwriters Laboratory/Electrical Testing Laboratories

- The required battery chemistry is Lithium-Ion.
- The minimum required battery bank voltage is 48 V.

## 8. Water Storage System (WSS)

### 8.1. Pre-Installation Assessment:

The Selected Proposer(s) shall be responsible for the Pre-Installation Assessment for the project's site where a service will be performed. The structural evaluation will be performed by a licensed professional with structural engineering degree or studies. Such task includes but is not limited to the following activities:

- Evaluate the property's roof capacity to support the WSS system by completing a roof capacity checklist for home installations. The Selected Proposer(s) will generate a scope of work based on the findings from the roof capacity checklist. A complete evaluation should provide information on roof load capacity and all required analyses to allow the system to function correctly at the installation site. The Scope of Work generated shall detail the installation plan on the roof of the dwelling unit to support its installation and full functionality.
- Assess if the proposed equipment can be located on the rooftop without interfering with the other equipment mounted and/or to be mounted on it.
- Assess the home's interior and exterior elements and determine their conditions to facilitate the WSS components installation. This assessment should be included within the PV System assessment whenever possible. Home interior and exterior elements may include (but are not limited to):
  - Structural, electrical, plumbing, Heating, Ventilation, and Air Conditioning (HVAC) systems are installed on the roof.
  - Main panelboard
  - Any electrical conduit that might interfere with the WSS components installation.
- After examining the home's roof elements and determining their condition, home site elements shall be examined, which include (but are not limited to):
  - Site restrictions
  - Site accessibility
  - Yards and courts
- Verify the roof's load capacity to support the equipment load of home's exterior elements and determine their conditions. Home external elements may include (but are not limited to):
  - Roof weatherproofing and covering, including asphalt shingles, wood shingles or shakes, metal roofing, cement shingles, built-up roofing, single-ply membranes, and roll roofing, among others.
  - Skylights
  - Gutters and downspouts

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- Parapets and gables
- Lightning protection
- Electrical service entry including overhead wires, electric meter, service entry conductor.

#### **8.2. Design Service:**

The Selected Proposer(s) must design the Water Storage System for single-family homes following the requirements stated in Section 8.8 of this Scope of Work (Technical Specifications for the Water Storage System).

#### **8.3. Award Visit:**

For additional information, refer to Section 9, Other Tasks, applicable for PV System and Water Storage System services.

#### **8.4. Water Storage System Installation Services:**

- The Selected Proposer(s) must be responsible for acquiring all equipment and its installation.
- The Selected Proposer(s) must be responsible for all permits and endorsements for system installation (as required).
- Installation of Water Storage System: The Selected Proposer(s) must install the Water Storage System. Installation costs must be standardized to accommodate installation across various types of single-family homes.
- Install materials following the manufacturer's requirements. The Selected Proposer(s) must coordinate with PV system installers to ensure the water pump is connected to a PV stand-alone electrical system circuit (as required).
- The water pump shall not shade or otherwise obstruct the photovoltaic modules.
- Provide all labor, materials, tools, equipment, and services required to complete the project as specified, including electrical work associated with the WSS operation.
- Responsible for the cost of all items required for a complete operating system.
- No materials shall be installed if:
  - Materials are not compatible with existing conditions.
  - Installation of materials violates equipment warranty.
  - Installation is not to code or industry standard.
  - Materials are not in compliance with the conditions established by the program, federal or state regulation, or this RFP.

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#### **8.5. Pre-Inspection Package:**

- Perform Commissioning and Inspection following the current industry standards. The Commissioning should verify that the project is performing as per project design.
- The Designer shall perform the Commissioning of the entire PV system and Water Storage System. This data shall be used to confirm the proper performance of the system(s). Performance tests shall be conducted at the final commissioning/acceptance testing.
- After completion of the Commissioning, the Selected Proposer(s) will be responsible for submitting a Pre-Inspection Package with the following reports to the PM before Inspection:
  - Commissioning Report
  - Design Drawings
  - Design Specifications
  - Submittal Certifications
  - Credentials of the Design Team
  - As-Built Drawings, as applicable
  - Warranties

#### **8.6. Inspection:**

For additional information, refer to Section 9, Other Tasks, applicable for PV System and Water Storage System services.

#### **8.7. Additional Services:**

In addition to the traditional Design, Permitting, Installation, and Commissioning services included in this Scope of Work, some projects may require additional services, due to unforeseen conditions for the Contractor to deliver a complete and thorough design. These are considered Additional Services by PRDOH. For such services, the Contract will include an Allowance.

Whenever Additional Services are required, the Contractor shall develop an Additional Service Work Plan, including a justification of need for the service, the scope of work, the credentials of the staff to perform the services, a schedule, the costs, and a list of deliverables to be prepared. The Additional Service Work Plan shall be submitted by the Contractor to the PRDOH through a Request for Approval (RFA) for approval prior to the Contractor performing the services. PRDOH will evaluate each Additional Service for need and cost reasonableness and, if determined to be of need and in the best interest of the project, will approve the performance of the services by the Contractor. No Additional Service shall be performed by the Contractor without the written approval of PRDOH.

If the cost of any Additional Services is more than \$10,000 (the micro-purchase procurement threshold) then the Contractor shall submit to PRDOH at least three (3) economic proposals for the Additional Services. These three (3) economic proposals must be from different Subcontractors for the performance of the Additional Services. One of the economic proposals may consider the

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performance of the Additional Services with the Contractor's staff, if the Contractor has the internal capacity to perform them.

Additional Services include, but are not limited to:

- Unforeseen conditions related to electric power utility connections.
- Unforeseen conditions related to electric utility repairs.
- Other Unforeseen conditions that might impact the installation of WSS.

All Additional Services shall be prepared in compliance with applicable federal, state, and local codes, regulations, and laws, and whenever applicable, shall be prepared and certified by competent professionals with the proper authorizations to perform the work.

#### **8.8. Technical Specifications for Water Storage System:**

The Selected Proposer(s) must obtain all necessary equipment, materials, design, and testing services to install the WSS. The system must:

- Provide domestic water to the home from the water storage tank using an electric water pump, controls, and a diaphragm-type pressurized tank to provide a backup water supply to the domestic water line. The tank should be sized to meet the home's water needs by providing adequate pressure without damaging water fixtures. The WSS shall supply each household with potable water supply during a water service interruption scenario.
- If the roof structure allows, the water storage tank shall store a maximum capacity of 500 Gallons per household, complete with all its necessary accessories and instrumentation for full functionality of water storage and distribution within the home during a water service interruption scenario. The Designer should define the capacity of the tank according to the household needs. The water storage tank shall be connected to the main water line that serves the property or home with a water level control valve and backflow preventer designed to prevent backflow from the water storage tank to the main water line. The water storage tank shall have instrumentation to monitor and control pressure and water levels.
- The water storage tank shall be located on the rooftop of the home. If the house's structural integrity does not support the load of any applicable water tank size options, then the feasibility of ground existing pad or prefabricated pad installation should be evaluated.
- If the house loses power, the electric pump should be able to work off-grid from the main electrical utility supported by the PV and battery system granted to the applicant from the CEWRI program, when applicable.
- The water storage tank shall be constructed of ultraviolet (**UV**) and corrosion-resistant material, approved for potable water, and have the Food and Drug Administration (**FDA**) and the National Safety Foundation (**NSF**) approval.

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- Other related material for complete installation should include but is not limited to:
  - Pump: ½ horsepower with pressurized tank with pump cover. Must be mechanically attached.
  - A diaphragm-type pressurized tank should be sized to provide adequate pressure to meet the water demands of the home.
  - Piping: Only copper piping is authorized. Sediment filter: Should be able to filtrate 10 microns particles. Using chlorinated polyvinyl chloride (**CPVC**) or Cross-linked Polyethylene (**PEX**) will be approved under extraordinary circumstances and requires PRDOH's prior approval on a case-by-case basis.
  - Sensor level: Recommended use whenever possible.
  - Install a Buoy
  - Backflow prevention system to prevent cross-connection between household water system and water main.
  - The water storage tank must be watertight and intended for potable water use.
- All water storage tanks must be specifically manufactured for potable water use in accordance with FDA food-grade specifications, NSF standards, or other nationally recognized standards for potable water. Documentation from the manufacturer stating that tanks are approved for potable water must be available for inspection. Water Storage tanks must be installed according to the manufacturer's specific instructions.
- All water storage tanks must be vented to allow the free flow of air into and out of the tank as the water level inside the cistern changes. The vent opening must be turned down and screened with a 24-mesh screen cloth to prevent the entry of insects, birds, and other animals.
- Connect to the water utility main to provide a continuous water flow through the water storage tank.
- Before filling and using, the water storage tank and pressure tank must first be cleaned and disinfected.
- Disinfection of the water storage tank and pressure tank after installation is mandatory, and the Selected Proposer(s) must follow the manufacturer's recommendation for potable water systems.

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**9. Other tasks applicable for services of PV Systems and Water Storage Systems**  
**9.1. Pre-installation Assessment Visit, Report, and Cases Scope of Work:**

- Perform a Pre-Installation Assessment visit to each dwelling unit and develop the Pre-Installation Assessment report for each case project. Submit the report to the PMs for approval.
- Develop case Scope of Work for each project. Submit the Scope of Work to the PMs for approval.

#### **9.2. Award Visit:**

The Selected Proposer(s) will perform the following tasks during the award visit, including but not limited to:

- Complete the Project Grant Agreement, perform award visits with the PMs to each Applicant's property.
- Perform orientation to Applicants of the offered measures, which may be installed in the unit.
- Ensure that the Applicant is informed on the process and the works to be performed, including images of the equipment to be installed, location, piping route and installation methods, light unit framing units (if applicable), and the conditions of the award prior to any work being performed.
- Assist the PMs during the applicant award process. The Selected Proposer(s) will be responsible for clarifying to the owner any design-related clarification that might be needed.

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#### **9.3. Inspection:**

The Selected Proposer(s) will visit the project site along with the PRDOH Program Manager and inspect works for overall quality standards. Upon completion of the installation, the PM's Inspector will inspect the physical installation and all paperwork submitted in the Pre-Inspection Package by the Selected Proposer(s). Once on-site, the PM's Inspector shall ensure that all contractually agreed upon work was completed and confirm the following:

- The equipment installation is in accordance with the design and installation drawings and specifications.
- The model of the equipment installed is in accordance with the designer's specifications.
- Quality workmanship of installation has been performed.
- A brief review of findings compared to the site's initial description, Scope of Work, any change order(s), and final invoice.
- All warranties are included and active.

During the post-install site inspection, the Inspector will record any corrections to the installation that need to be made by the Selected Proposer(s). If, during the post-installation Inspection, the Program finds discrepancies between the work performed and the Scope of Work, installation standards, and/or equipment specifications, the Selected Proposer(s) will be responsible, at the Selected Proposer(s)' expense, for bringing the installation into conformance before the

Selected Proposer(s) is paid in full. Installation corrections, as noted during final acceptance or the post-installation inspection, shall be performed within ten (10) calendar days. If the Selected Proposer(s) cannot undertake corrective actions within ten (10) calendar days, the Selected Proposer(s) must deliver reasons for the delay to the PM in writing. The PM shall determine the validity and allow for a delay no longer than twenty (20) calendar days after validity is determined. Any discrepancies or disagreements between the PM and the Selected Proposer(s) shall be escalated to the adjudicating official within PRDOH.

#### **9.4. Orientation and Training to Applicants:**

- The Selected Proposer(s) shall perform orientation and training for the Applicants regarding the operation and maintenance of the installed systems and equipment.
- The Selected Proposer(s) must deliver all applicable Operation and Maintenance Manuals of the installed systems to each Applicant receiving a system and any other required documents.

#### **9.5. Health and Safety:**

The Selected Proposer(s) shall observe and comply with all applicable laws, ordinances, codes, and regulations of governmental agencies, including federal, state, municipal, and local governing bodies having jurisdiction over any or all of the Scope of Work, including all provisions of the Occupational Safety and Health Act of 1979, as amended, and all other applicable federal, state, municipal and local safety regulations. All services performed by the Selected Proposer(s) must be in accordance with these laws, ordinances, codes, and regulations. The Selected Proposer(s) shall release, defend, indemnify, and hold harmless the PRDOH, its officers, agents, volunteers, and employees from all damages, liability, fines, penalties, and consequences from any non-compliance or violation of any laws, ordinances, codes, or regulations. Additionally, the following requirements must be met:

- The Selected Proposer(s) must develop and submit to the PMs a safety plan for approval.
- Provide a statement of how the Selected Proposer(s) will be prepared to work within the project timeline and on time, ensure conformance with quality control standards, and respond to quality control issues during and after completing the project.
- Develop, monitor, and implement health and safety policies to ensure that projects follow health and safety laws and regulations to reduce or prevent hazards, dangers, and accidents.
- All roof access points shall be securely locked at the end of each day.
- Suppose a release of hazardous materials or hazardous waste that cannot be controlled occurs connected with this Contract's performance. In that case, the Selected Proposer(s) shall immediately notify the appropriate public safety service (police, fire rescue, or emergency medical services), PRDOH Program Director, and project

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designees. The Selected Proposer(s) must not store hazardous materials or waste without proper permits.

#### **9.6. Damage and Disposal:**

The Selected Proposer(s) must proceed with work in a manner that does not damage existing materials/infrastructure unless otherwise directed by the Organization:

- The Selected Proposer(s) must document pre-existing damage to the materials/infrastructure and report any such damage to the PMs.
- The Selected Proposer(s) must repair damage to buildings and equipment caused by this project's work at its expense.
- The Selected Proposer(s) must remove all materials, equipment, and debris immediately upon project completion or at the end of each workday (unless the dwelling unit owner agrees to provide storage space).
- The Selected Proposer(s) must keep access to all areas of the dwelling unit clear.
- The Selected Proposer(s) must not use on-premises refuse containers for disposal of any material whatsoever without prior approval of CEWRI PMs.
- The Selected Proposer(s) must protect people and property from damage and debris at all times during the construction process.

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#### **9.7. Hazardous Material Clean-Up:**

All surfaces and articles contaminated by hazardous materials during this work shall be cleaned per all applicable laws, codes, and ordinances and transported safely to the appropriate destruction/servicing facilities. The Selected Proposer(s) must comply with the regulations to manage hazardous waste as specified in the Puerto Rico codes and regulations.

#### **9.8. Reporting:**

The Selected Proposer(s) will be responsible for the creation and submission of the following reports to the CEWRI Program Manager:

- Pre-Installation Assessment Report
- Systems Installation Report
- Project Commissioning Report
- Pre-Inspection Package documentation in support of the requested inspection to ensure that current works performed merit the Final Inspection. If the documentation submitted to the Program Manager does not merit a Final Inspection, the Program Manager shall deny the Final Inspection request to the PRDOH PV System and Water Storage System Contractor and state the reasons why the Inspection was denied.

**10. Warranty.** The Selected Proposer(s) must warrant all its products for the following period:

- **Ten (10) years** guarantee for the Solar Photovoltaic System Panels.
- **Twenty-five (25) years** of Linear Performance Guarantee for the Solar PV modules.
- **Ten (10) years** guarantee on Battery Bank and inverter.
- **Five (5) years** for the WSS.

Warranties shall include:

- Parts, labor, faulty material, manufacturing defects, defective items, emergency works of the systems, and installation costs related to the failure of equipment under warranty (when due to equipment failure during the warranty period of ten (10) years of operation for PV system and five (5) years of operation for the WSS).
- Repair or replacement of all system components for both systems, including but not limited to faulty material manufacturing defects, during the warranty period.
- All unscheduled or emergency warranty works must be completed within seven (7) days of notification to the Selected Proposer(s) from the homeowner at no additional cost to PRDOH or the homeowner during the warranty period. If the 7-day period is not enough due to equipment shortage, the Selected Proposer(s) must provide a written explanation and a copy of the equipment's delivery documents.
- Full warranty documents for all installations shall be submitted to the Applicants and duplicated to the CEWRI PMs firm.

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**After full payment for the installation, no further costs will be paid by PRDOH.**

**11. Deliverables.** The key deliverables to be provided include, but are not limited to, the following:

- The Selected Proposer(s) must submit monthly reports to CEWRI Program Manager and PRDOH. Monthly reports shall be due the fifth (5<sup>th</sup>) day of each month and shall include:
  - Copies of all notifications from CEWRI PMs.
  - Inspection orders placed within the previous calendar month and inspection reports, as applicable.
  - Notices to begin the design phase within the previous calendar month.
  - Notices of accepted/rejected designs within the previous calendar month.
  - Locations of all pending and completed tasks within the last calendar month.
  - Explanation of pending and completed design tasks within the previous calendar month.
  - Explanation of pending and completed installation tasks within the previous calendar month.
  - Copies of all payment requests sent to PM within the last month.
  - Payment receipt notifications with the date payment was received.

- The Selected Proposer(s) must develop and submit to the PMs the following but not limited to:
  - Pre-Installation Assessment Visit and Report for each project
  - Case Scope of Work for each project
  - System Designs for Each Project
  - Systems Installation Report
  - Commissioning Report
  - All technical documentation, including the Component's data sheets and listing.
  - Warranties
  - Installation and operation manuals
  - As-built version of system drawings, cable lists, routing, wirings, and grounding system.
  - Any other documentation required or requested by PRDOH.

The Selected Proposer(s) must provide the equipment and installations in accordance with Section 12, Delivery Schedule.

## 12. Delivery Schedule

- Coordinate with Applicant and CEWRI-CI Program Manager for pre-installation assessment visits, installation, and closeout inspections.
- Upon notice from the PM firm, the Selected Proposer(s) shall perform the pre-installation assessment and report within the timeframe indicated in the performance requirements.
- Upon notice from the PM firm, the Selected Proposer(s) must perform the project's design within the timeframe indicated in the performance requirements.
- Upon notice from the PM firm, the Selected Proposer(s) must install the system(s), perform the commissioning of the project and submission of the Pre-Inspection Package within the timeframe indicated in the performance requirements. If the afforded timeframe is not enough due to equipment shortage, the Installer/Contractor must provide a written explanation and a copy of the equipment's delivery documents.
- Upon completion of installation, the Selected Proposer(s) must submit the official payment request to PM with all applicable documentation, including warranty. Warranty documentation shall be submitted in duplicate (one for PM/PRDOH and one for the homeowner/applicant). The Selected Proposer(s) delivers warranty information to the homeowner/applicant.

## 13. Terms and Conditions

The following terms and conditions are designed to state expectations relating to the project and the Selected Proposer(s)' work performed. Should the Selected Proposer(s) deviate from these standards and guidelines, all costs and liability associated with the observed deviation will be the Selected Proposer(s)' sole responsibility.

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**13.1. Designer Responsibilities:**

The Designer is responsible for the design of system types that require structural components for which construction permits are needed as shown in Section 6 Project Type Description. Specifically, the Designer is responsible for the design of the following:

- PV Type C1 structural component, not including the design of the PV system (refer to Section 6);
- PV Type C2 structural component, not including the design of the PV system (refer to Section 6); and
- PV Type D structural component, not including the design of the PV system (refer to Section 6).

Each design must be in compliance with all federal and state codes and regulations including Act 173-1988, as amended.

**13.2. Interpretation of Scope of Work:**

The Selected Proposer(s) is responsible for reading and fully understanding the Scope of Work. The PV Systems, Water Storage System Design, Acquisition, and Installation approach allows for continual collaboration; however, any proposed changes to the original proposal must be approved in writing by PRDOH and PM through the change order process before proceeding.

PRDOH reserves the right to modify the policies established in the Program Guidelines without the need to amend this Scope of Work. The Selected Proposer(s) is responsible for complying with Program Guidelines, as amended. If the approved amended version of the guidelines varies from the Scope of Work herein, and the modifications do not represent a contract cost change, the amended version fully supersedes the Scope of Work and should be used as the basis for the work to be performed.

**13.3. Existing Conditions:**

The Selected Proposer(s) is responsible for verifying the installation site's existing conditions as reported in this Request for Proposal before construction begins.

**13.4. Installation Schedule:**

The Selected Proposer(s) will complete the installation within the timeline described in the performance requirements. Once the installation has begun, the Selected Proposer(s) must secure the work area for the full work period until the installation is complete.

- The Selected Proposer(s) shall have all required materials in stock prior to beginning installation.
- The Selected Proposer(s) shall give the PMs an estimate of the installation's completion date and shall inform the PMs if the installation appears to be taking longer than the original estimate.
- Corrections, as identified during final acceptance or as a result of the quality control process, shall be performed within the timeframe

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indicated in the performance requirements unless the problem presents a health and safety threat, in which case the correction shall be made immediately. Exceptions to this rule shall be granted in circumstances beyond the control of the Selected Proposer(s) (e.g., unforeseen existing conditions, material backorders, etc.). The Selected Proposer(s) shall notify PRDOH (verbally and in writing) if the correction will or may violate this provision.

**13.5. Communication:**

The Selected Proposer(s) shall respond to information requests within two (2) business days. The request will determine the response form. The response may be in the following forms but not be limited to E-mail, hardcopy, or fax.

**13.6. Change Orders and Scope of Work Modification:**

The Contract may be increased or decreased after the proposal is accepted. Under no circumstances shall the Selected Proposer(s) deviate from the work defined in the Scope of Work without advance written approval from PRDOH.

**13.7. Final Acceptance:**

A project will not be considered complete until all project steps are completed, including quality control inspection, training, and all project deliverables.

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**END SCOPE OF WORK**



# Attachment C



GOVERNMENT OF PUERTO RICO  
DEPARTMENT OF HOUSING

**COMPENSATION SCHEDULE**  
**PV Systems, Water Storage System Design, Acquisition, and Installation Services**  
**Community Installations Subprogram**  
**CDBG-MIT-RFP-2023-02**  
**Under Community Development Block Grant - Mitigation (CDBG-MIT) Programs**

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**Aireko Energy Solutions, LLC**

**PV Systems, Water Storage System Design, Acquisition, and Installation Services**

**Request for Proposals No. CDBG-MIT-RFP-2023-02**

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The following sections contain cost information that considers the cost per item distributed by the Procurement Division in compliance with the Request for Proposals (RFP) CDBG-MIT-RFP-2023-02 and the Cost Form submitted by the awarded proposer.

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The Contractor presented rates per item and tasks required, as so they will be compensated based on actual completed worked as identified in Scope of Work.

In case of a discrepancy between the Cost Form and this document (Compensation Schedule) rate per unit cost, the Cost Form will prevail.

**Total Contract Cost**

The total contract cost awarded is for the amount of \$3,860,211.00 to be distributed to **Aireko Energy Solutions, LLC** for an initial contract term of two (2) years with the option of one (1) year extension upon mutual agreement. The Proposer will be compensated based on the compensation rate for this RFP as identified in Exhibit G-Cost Form dated March 7, 2024.

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PV Systems, Water Storage System Design, Acquisition, and Installation Services  
Between the PRDOH and Aireko Energy Solution LLC under CDBG-MIT  
Attachment C: Compensation Schedule

**Aireko Energy Solutions, LLC.**  
**Cost Form**  
**Distribution of Funds**

Equipment Description	Quantity	Aireko – Price Per Unit	Total Costs
<b>Type A PV System and related services</b>			
3 kW DC	68	\$12,644.00	\$859,792.00
4 kW DC	12	\$14,606.00	\$175,272.00
(A) Sub-Total PV System			\$1,035,064.00
<b>Type B PV System and related services</b>			
3 kW DC	6	\$14,298.00	\$85,788.00
(B) Sub-Total PV System			\$85,788.00
<b>Type C1/C2 PV System and related services</b>			
3 kW DC	11	\$32,380.00	\$356,180.00
(C) Sub-Total PV System			\$356,180.00
<b>Type D PV System and related Services</b>			
3 kW DC	9	\$28,462.00	\$256,158.00
(D) Sub-Total PV System			\$256,158.00
<b>Battery Storage and related Services</b>			
9kWh/day Battery Storage	94	\$6,477.00	\$608,838.00
12kWh/day Battery Storage	12	\$8,047.00	\$96,564.00
(E) Sub-Total PV System			\$705,402.00
<b>Water Storage System and related Services</b>			
300 Gallons	85	\$3,512.00	\$298,520.00
400 Gallons	8	\$3,758.00	\$30,064.00
500 Gallons	7	\$4,004.00	\$28,028.00
(F) Sub-Total Water Storage System			\$356,612.00
<b>Prefabricated Concrete Pad</b>			
Prefabricated Concrete Pad	31	\$2097.00	\$65,007.00
(G) Sub-Total Prefabricated Concrete Pad			\$65,007.00
<b>Total (PV System + Battery Storage System + Water Storage System + Pad)</b>			\$2,860,211.00
<b>Allowance</b>			\$1,000,000.00
<b>Total Proposal Cost for 2 years (24 months)</b>			<b>\$3,860,211.00</b>

**Notes**

- (1) All equipment to be submitted with the Proposal must comply with the specifications included in the Scope of Work.
- (2) Proposer shall submit technical/specification documentation for all equipment offered as part of the proposal.
- (3) All equipment offered as part of the proposal is subject to the Warranty conditions set forth in the Scope of Work.
- (4) Proposals which do not contain pricing for every item requested will be considered unresponsive by the PRDOH.
- (5) Pricing must include all services associated with the PV System, Battery Storage, and WSS included in the Scope of Work.

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PV Systems, Water Storage System Design, Acquisition, and Installation Services  
Between the PRDOH and Aireko Energy Solution LLC under CDBG-MIT  
Attachment C: Compensation Schedule

- (6) Pricing must include all expenses, including incidental, taxes, handling, and delivery costs, as well as any other administrative cost associated with the goods and services. The PRDOH will not consider any additional costs. Only the unit prices submitted will be taken into consideration. The PRDOH will not be responsible for reimbursement of expenses related to per-diem, tolls, parts, or labor for equipment under warranty.
- (7) Proposers shall provide the pricing for water storage systems inclusive of a 1/2 horsepower (hp) water pump with a pressurized tank and tubing/connections as specified in the Scope of Work.
- (8) Estimated quantities for PV System capacities, battery storage, water storage and prefabricated concrete pad Sub-Total represents the estimated quantities per system in the cost form. Should not be interpreted as a cap on the allowed quantities per system.
- (9) Estimated PV System, Battery Storage, and Water Storage System and Related Services Sub-Totals represent the estimated Sub-Totals per systems in the Cost Form. These amounts should not be interpreted as a cap on the allowed quantities. The aggregate total cost amount to be invoiced for PV System with Battery Storage and Related Services and Water Storage System and Related Services should not exceed the amount established as the Total Proposal Cost (PV System + Water Storage System + Allowance); therefore, there could be instances when the estimated quantities indicated in Cost Form vary, according to Program needs, as long as the Selected Proposer does not invoice an amount greater than the one established as the Total Proposal Cost.
- (10) Unforeseen conditions, as described in the Scope of Work, may require Selected Proposers to perform one or more of the following subtasks, which will be reimbursed from the Allowance at the unit costs specified below:
- Restoration/service/remodel/installations of electric meter connections including permitting.
  - Any other task or repair related to interconnection services beyond standard electrical repairs.

Cost Type	Total Amount
PV Systems	\$1,733,190.00
BSS Systems	\$705,402.00
WSS	\$356,612.00
Prefabricated Concrete Pad	\$65,007.00
Allowance	\$1,000,000.00

**TOTAL PROPOSAL COST      \$3,860,211.00**

Sum of **(a)** PV Systems – Acquisition and Installation Cost; plus, **(b)** BSS – Acquisition and Installation Costs; plus, **(c)** WSS – Acquisition and Installation Costs

**Notes on TOTAL PROPOSAL COST:**

1. The TOTAL PROPOSAL COST represents the potential total cost for the equipment and services requested for all the PV Systems, Water Cisterns Design, Acquisition, and Installation Services. Allowance costs will be awarded on a case-by-case basis with approval from PRDOH.
2. The PRDOH aims to contract, at its discretion and in the best interest of the overall programs' implementation, one or more Proposers.
3. Based on the number of Proposers finally awarded through this RFP, contracts may be signed to manage quantities of systems and/or allowances lower than those considered in this Cost Form.
4. PRDOH will reserve the discretion to amend contracts of awarded Proposer(s) to include additional amounts of systems and/or allowances based on performance metrics.
5. The Allowance may be divided among all Selected Proposers in the instance PRDOH determines that it is in the best interest of the implementation and administration of the CEWRI CI Program. Access to Allowance funds requires prior authorization from the PRDOH or its representative, as explained in the Scope of Work.

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**MINIMUM PERFORMANCE REQUIREMENTS**  
**Request for Proposals**  
**PV Systems, Water Storage System Design, Acquisition, and Installation Services**  
**Community Installations Subprogram**  
**Community Energy and Water Resilience Installations Program**  
**Community Development Block Grant – Mitigation**  
**Puerto Rico Department of Housing**  
**CDBG-MIT-RFP-2023-02**

## **INTRODUCTION**

This document represents performance metrics and requirements for the PV Systems, Water Storage System Design, Acquisition, and Installation Services. The Proposer shall adhere to the requirements of this document. The Proposer shall develop work plans, schedules, reports and/or any other document as may be requested by PRDOH or its representative in connection to the metrics and requirements set forth herein. The Proposer shall submit any of such documents for review and approval as requested by PRDOH within the specified time frame provided for such request. The Proposer is responsible for providing and performing all the services stated in the Scope of Work.

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Liquidated Damages are only triggered for the services as identified in this document. Target Timeframes presented in this document do not trigger Liquidated Damages under the contract. Target Timeframes will be used in the evaluation of the Proposer's performance against the performance of other contractors of similar services and PRDOH's expectations for the tasks. The Proposer's performance will be taken into consideration by PRDOH at the time of application assignments or re-assignments.

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The requirements and metrics included in these Performance Requirements may be modified at the discretion of PRDOH and shall become binding between the parties without requiring an amendment to the contract.

## **SCOPE OF WORK**

The Proposer is responsible for compliance with all aspects of the Scope of Work included as Attachment 1 of the Request for Proposals.

## **PRACTICE OF LICENSED PROFESSIONS**

Proposer and its subcontractors, agents, and employees, shall comply with all applicable federal and local laws and regulations, including but not limited to those that relate to the practice of licensed professions and those that could affect the Proposer's ability to carry out the Scope of Work under the Contract. Proposer certifies that it possesses all necessary permits, endorsements, and approvals necessary to perform the Work, which are to be valid and updated for the duration of the Contract. Proposer and each of its employees, agents, subcontractors, and subconsultants must have all licenses, permits, authorizations, consents, and approvals necessary for the performance of the Scope of Work under the contract, and such licenses, permit, authorizations, consents, and approvals are to be up to date and in full force and effect from the date of Contract execution and for the duration of the Contract. Proposer must always ensure that professional, architectural, or engineering work is performed by qualified professionals with the

PV Systems, Water Storage System Design, Acquisition, and Installation Services  
Between the PRDOH and Aireko Energy Solution LLC under CDBG-MIT  
Attachment D: Minimum Performance Requirements

proper education, know-how, training, knowledge, expertise, experience, and license to perform such works, according to applicable federal and local rules and regulations.

### PRE-INSTALLATION ASSESSMENT

*Photovoltaic System (section 7.1. in SOW) & Water Storage (section 8.1. in SOW)*

- **General Description.** The Proposer shall be responsible for the Pre-Installation Assessment of each project site where the installation will be performed for the PV Systems and the WSS. The Proposer is responsible for the deliverables related to the Pre-Assessment services contained in the Scope of Work related to CEWRI-CI.
- **Pre-Installation Assessment completion.** The Pre-Installation Assessment shall be considered complete once the Pre-Installation Assessment Site Visit is performed and the report is submitted within the timeframe established below.
- **Target Timeframes**

Subtasks	Definition of Completion	Target Timeframe
Pre-Installation Assessment Site Visit	Upon notice from the PM firm, the Selected Proposer shall perform the pre-installation assessment to the targeted Applicants	within <b>three (3) calendar days</b> upon notice from the PM
Submit Pre-Installation Assessment Report	Report of the Pre-Installation Assessment must be submitted to the Grant Management System of Record.	within <b>fourteen (14) calendar days</b> after completing the Pre-Installation Assessment Visit

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### SYSTEM DESIGN

*Photovoltaic System (section 7.2. in SOW) & Water Storage (section 8.2. in SOW)*

- **General Description.** The Proposer must develop a design package of photovoltaic system with battery backup and water storage for single-family homes. The design would vary based on defined project types as defined by the Scope of Work.
- **Design Completion.** The Design phase shall be considered complete when PRDOH's Grant Management System approves the submission of a Design Package by the Proposer and approved by the Program Manager.
- **Target Timeframes.**

Subtasks	Definition of Completion	Target Timeframe
Submit Design Package	Develop and submit design package as specified in the Scope of Work	within <b>ten (10) calendar days</b> after environmental review by PRDOH Certifying Officer

### AWARD VISIT

*Photovoltaic System (section 7.3. in SOW) & Water Storage (section 8.3. in SOW)*

- **General Description.** The Proposer will be responsible for assisting and coordinating with the Program Manager during the performance of award determinations following the

Program(s)' policies and procedures. Once the Proposer finalizes the Design phase and the PM submits the Award Notification Notice to the applicant, an Award visit must be conducted to execute the Grant Agreement among all parties including the Proposer.

- **Award Visit Completion.** The award visit shall be considered complete when the Project Grant Award is executed among all parties, including the Proposer, or if the Applicant receives an Ineligibility Determination Notice Letter. The award visits must be performed prior completion of a Project Grant Agreement.
- **Liquidated Damages.** The task will be subject to Liquidated Damages if a Proposer delays the execution of the Award for more than **ten (10) calendar days** from the coordinated Award Visit date.

## SYSTEM INSTALLATION

*Photovoltaic System (section 7.5. in SOW) & Water Storage (section 8.4. in SOW)*

- **General Description.** Once the PM Submits a Notice to Proceed, the Proposer will begin the Installation of the PV + BSS Systems and/or WSS. Each installation type as described in the Scope of Work will have its own timeframe. Unforeseen conditions must have been notified prior to installation and must have been planned accordingly.
- **Installation Start Date.** Time is critical to PRDOH in the Installation Task. The Program Manager will send the Notice to Proceed after an Award is executed. The Proposer must proceed to coordinate and set the installation commencement date with the PM and the Applicant within **five (5) calendar days** after the Notice to Proceed has been received by the Proposer.
- **System Installation Completion.** The system installations shall be considered complete when the Proposer completes and submits the Pre-Inspection Package for review through the Grant Management System.
- **Liquidated Damages.** The task will be subject to Liquidated Damages if the Installation is not completed on or before **forty-five (45) calendar days** from the established Installation Start Date agreed upon with the Notice to Proceed.

## INSPECTION

*Photovoltaic System (section 7.7. in SOW) & Water Storage (section 8.6. in SOW)*

- **General Description.** During the post-install site inspection, the Inspector (PM) will record any corrections to the installation that needs to be made by the Proposer. Any discrepancies or disagreements between the PM and the selected Proposer shall be escalated to the adjudicating official within PRDOH.
- **Inspection Completion.** This task shall be considered complete when the final Inspection is approved by the PM and PRDOH.

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PV Systems, Water Storage System Design, Acquisition, and Installation Services  
Between the PRDOH and Aireko Energy Solution LLC under CDBG-MIT  
Attachment D: Minimum Performance Requirements

▪ **Target Timeframes.**

Subtasks	Definition of Completion	Target Timeframe
<b>Corrective Actions</b>	The Proposer must complete corrections to work as noted during final acceptance or the post-installation inspection. If the Proposer cannot undertake corrective actions within the target timeframe, they must deliver reasons for the delay to the Program in writing. The Program shall determine the validity of the additional time requested.	<b>Within ten (10) calendar days</b> after post-installation inspection.

**OTHER DELIVERABLES**

Subtasks	Definition of Completion	Target Timeframe
<b>Response to PRDOH and PM Information Requests and Inquiries</b>	The Proposer must respond to information requests and inquiries from PRDOH/PM.	<b>Within three (3) calendar days</b> from initial contact.
<b>Monthly Reports</b>	The Proposer must submit monthly reports to CEWRI Program Manager and PRDOH. Monthly reports	Due the <b>fifth (5th) day</b> of each month

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**LIQUIDATED DAMAGES & PENALTIES**

The Contractor shall pay PRDOH, as liquidated damages, **\$150.00** for each calendar day that a deliverable required is late until deemed in compliance, subject to a maximum of **\$1,500.00** per deliverable. Said sums, in view of the difficulty of accurately ascertaining the loss which PRDOH will suffer by reason of delay in the completion of works requested, are hereby fixed and agreed as the liquidated damages that PRDOH will suffer by reason of such delay. Liquidated damages received are not intended to be nor shall they be treated as either a partial or full waiver or discharge of PRDOH's right to indemnification, or the Contractor's obligation to indemnify the PRDOH, or to any other remedy provided for as a provision of the contract or law. Liquidated damages may be assessed at the sole discretion of PRDOH. For the purpose of applying and calculating such liquidated damages, a grace period of ten (10) days shall be observed, and the schedule may be extended by any additional time or delays outside the control of the Contractor caused by act of omission of PRDOH, HUD, or any of their representatives. PRDOH may deduct and retain out of the monies which may become due to the Contractor, the amount of any such liquidated damages; and in case the amount which may become due is less than the amount of liquidated damages due to PRDOH, the Contractor shall be liable to pay the difference.

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**Insurance Requirements**  
**Request for Proposals**  
**PV Systems, Water Storage System Design, Acquisition, and Installation Services**  
**Community Installations Subprogram**  
**Community Energy and Water Resilience Installations Program**  
**Community Development Block Grant – Mitigation**  
**Puerto Rico Department of Housing**  
**Contract Division**

**SPECIAL INSURANCE AND BONDING SPECIFICATIONS  
FOR PROFESSIONAL SERVICES**

**LICITATION NUMBER: CDBG-MIT-RFP-2023-02**

**A. All bidders will submit a BID BOND**

The bid will be accompanied of a bid bond of five percent (5%) of the amount of the bid and option of the bidder, which will be able to be my means of:

- a. Certified check, or
- b. Bank draft

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The Bid Bond must be issued by a surety appearing in the latest US Department of Treasury's Listing of Approved Sureties (Circular Letter 570) and authorized to do business in Puerto Rico.

- B.** The successful bidder before commencing work or receiving a written notice to proceed with, or being allowed to start to work, must submit to the ***Puerto Rico Department of Housing (\*PRDOH)***, the hereafter mentioned insurance policies and/or bonds, thus including all endorsements and agreements required under the special contractual conditions as per the following:

**1. (X) State Insurance Fund Workmen's Compensation Insurance Policy**

In accordance with the Workmen's Compensation Act No. 45, to facilitate its acquisition, the ***\*PRDOH*** shall provide a letter to the successful bidder addressed to the State Insurance Fund.



2. (X) Commercial General Liability (Broad Form) including the following insurance coverage

COVERAGE	LIMIT
<b>I. Commercial General Liability:</b>	
• Each Occurrence	\$2,000,000
• General Aggregate	\$2,000,000
• Products & Complete Operations	\$2,000,000
• Personal Injury & Advertising	\$2,000,000
• Fire Damage	\$100,000 (Any one Fire)
• Medical Expense	\$10,000 (Any one person)
<b>II. Employer's Liability Stop Gap:</b>	
• Bodily Injury by Accident Each Employee Each Accident	\$1,000,000 \$1,000,000
• Bodily Injury by Disease Each Employee Each Accident	\$1,000,000 \$1,000,000

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3. (X) Comprehensive Automobile Liability Form including the following insurance coverages

LIMIT
<ul style="list-style-type: none"> <li>• Auto Liability - \$1,000,000</li> <li>• Physical Damages - \$1,000,000</li> <li>• Medical Payments - \$ 10,000</li> </ul>
<b>The Commercial Auto cover must be applied to the following symbols:</b>
• Liability Coverage -1
• Physical Damages – 2 and 8
• Hired – Borrowed Auto – 8
• Non-Owned Auto Liability – 9

4. (X) Professional Liability and/or Errors & Omissions

(X) A. Risk, interest, location and limits

(X) A.1 Description of work to be done

(X) A.2 Limit:

(X) each occurrence \$ 5,000,000

(X) Aggregate \$ 5,000,000

(X) Deductible \$ 10,000

(X) A.3 Certification that the insurance contract has been given as surplus lines coverage under the Commonwealth Insurance Code, when applicable.

5. (X) Employment Practices Liability

Limit - \$1,000,000

6. (X) Contractor's Pollution Liability

Limit - \$1,000,000

7. (X) Umbrella

Limit - \$10,000,000

8. (X) Builder's Risk – 100% of Finished Value

(x) a. Form for all risks including "DIC" and earthquake.

(x) b. 100% total finished cash value for all finished construction equipment and/or installation equipment.

(x) c. The "PRDOH", HUD and the Government of Puerto Rico must be included as additional insured.

9. (X) Payment and Performance Bond, Wage Payment Bond, and Labor Materials Payment Bond:

(X) a. The successful bidder must provide a Payment & Performance Bond for the total cost of the project under contract.

(X) b. The surety must be issued by a surety appearing in the latest US Department of Treasury's Listing of Approved Sureties (Circular Letter 570) and authorized to do business in Puerto Rico.

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(X) c. You must provide an endorsement on the Performance and Payment Bond to guarantee the payment of wages at the Department of Labor of the Government of Puerto Rico as an Obligated Guarantor under Laws of Puerto Rico.

(X) d. Certificate of Authority, Power of Attorney and Power of Attorney License issued by the Commissioner of Insurance.

(X) e. Performance and payment bonds will be required for 100% of the contract price to cover the construction work and the standard one year warranty/maintenance period after completion of the work.

10. The policies to be obtained must contain the following endorsements including as additional insured the ***Puerto Rico Department of Housing (\*PRDOH), U.S. Department of Housing and Urban Development (HUD), and the Government of Puerto Rico.***

(X) a. Breach of warranty

(X) b. Waiver and / or Release of Subrogation

(X) c. Additional Insured Clause

(X) d. Hold Harmless Agreement

(X) e. 30 Days Cancellation Clause

11. The insurance carrier or carriers, which will present said certificates of insurance must have at least a B+ Rating according to the Best Rating Guide.

### C. TERMS AND CONDITIONS

1. All certified checks or bank drafts must be paid to the Order of the Bidding Agency.

2. All Bid Bonds must be issued by an Insurance Company authorized by the Insurance Commissioner of Puerto Rico and must be accompanied by the following documents:

3. Certificate of Authority in the name of the Insurer issued by the Insurance Commissioner.

4. Power of Attorney, issued by the Insurer, in the name of its attorney-in-fact.

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5. Power of Attorney License, issued by the Commissioner of Insurance pursuant to the power of attorney issued by said Insurer.

6. If, at the time the bidding, documents are opened, any of the documents referred to in paragraph a, band c above are missing, this shall not constitute grounds for disqualifying the contractor, but the successful bidder shall submit such documents within two (2) working days from the date and time of the auction.

7. It is implicit that, by issuing the Bid Bond, the insurer undertakes to issue a Performance and Payment Bond in accordance with the conditions of the auction.

8. In any bidding or protest, the interested party shall be obliged to write down each risk with its individual cost of premium and shall then reflect the total sum of all insurance premiums as project costs.

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**D. IMPORTANT NOTICE TO INSURANCE AND SURETY COMPANIES AND THEIR REPRESENTATIVES**

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All insurance companies and all guarantors who issue policies or bonds under our special contractual conditions are subject to:

1. Be authorized to do business within the Commonwealth of Puerto Rico and have the corresponding license issued by the Commissioner of Insurance.
2. To be enjoying a good economic situation and to be classified under the Category of B+ Rating according to the "Best Rating Guide".
3. Submit to the **\*PRDOH** a written certification as evidence of full payment of premiums by the Contractor. Mention each risk coverage premium separately.
4. Avoid sub-contractual obligations of premium financing or any other kind, which may be detrimental to the public interest.
5. Avoid any request for cancellation by the contractor prior to the expiration date of the policy, without the consent of the Contract Division of the **\*PRDOH**; Discuss any refund of unearned premium.

6. Follow all Federal Bail and Acceptance Insurance Regulations, when applicable.
7. Indicate in the appropriate place of all insurance policies and/or bonds, the full description of the project, work or service to be rendered.
8. Not to make any amendments to insurance policies and bonds issued under the special conditions mentioned above, unless approved by the Insurance Section of the **\*PRDOH**.
9. To ensure that all insurance policies or bonds are issued to comply with all of our special insurance conditions with respect to the period of coverage, type of risk coverage, as well as all limits, as specified, and also to eliminate those exclusions in accordance with our request.
10. Clarify any questions regarding insurance requirements by any means of communication with the Insurance Section of the **\*PRDOH** under the Secretary for Legal Affairs.

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**E. EVIDENCE OF INSURANCE COVERAGE OF EACH SUBCONTRACTOR TO BE SUBMITTED BY THE SUCCESSFUL BIDDER AS THE PRIME CONTRACTOR:**

The successful bidder, as the prime contractor, has the duty to require each of the subcontractors or subcontractors to maintain in force all insurance policies and/or bonds necessary to cover their individual participation in the risk or risks related to the subcontracted work or service to be rendered.

Therefore, we emphasize that prior to commencing work or receiving written notice to proceed with such work or being authorized to commence work, the successful prime contractor has the responsibility to provide the **\*PRDOH** with evidence to the effect that all insurance and/or bonds required under the special conditions or required under the sub-contract to each of the sub-contractors or sub-sub-contractors are current and duly approved by the Contract Division of the **\*PRDOH**.

All insurance policies shall remain in effect for the entire contractual period, so that with any order of change and/or amendment resulting in alteration of the original project completion date or total

original cost, the prime contractor shall take the necessary steps to request the insurer to include such changes in all related insurance policies and/or bonds and to submit evidence by appropriate endorsements with effective dates. Cancellations without consent are not accepted.

The **\*PRDOH** reserves the right to stop any work or service under contract until the breach of these requirements has been remedied, so that any delay in the performance of the contract based on any breach of the insurance coverage requirements shall be deemed the sole responsibility of the Main Contractor.

**F. CONFLICT OR DIFFERENCE BETWEEN THE SPECIFICATIONS OF THE TENDERING, PROCEDURE AND SPECIAL INSURANCE CONDITIONS AND BONDS**

In the event of any conflict or difference in the description of coverage or in amounts or limits, etc., with respect to insurance requirements, the "Special Conditions of Insurance and Bonds" as set forth in this **Insurance Requirements** shall prevail over any other insurance specifications.

**\*PRDOH reserves the right to modify any Insurance Requirements at any time, in accordance with the Program's needs.**

**G. CERTIFICATE OF CONTRACT DIVISION**

We hereby certify, to our best knowledge and understanding, that we have prepared the aforementioned "*Insurance and Bonds Special Conditions*" after a proper evaluation of the related risks, based on the information of the nature of the project and description submitted to us, as requested by the Contracting Program through a written application.

**DESCRIPTION OF THE SERVICES:**

PV Systems, Water Storage System Design, Acquisition, and Installation Services  
Community Installations Subprogram  
Community Energy and Water Resilience Installations Program  
Community Development Block Grant – Mitigation

December 27, 2023

Date

Joel O. Hernandez Alvarado

Joel O. Hernández Alvarado  
Deputy Director – Contract Administration  
CDBG-DR/MIT Program

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## ATTACHMENT F

### HUD GENERAL PROVISIONS

Given that the Contract involves funds for which the U.S. Department of Housing and Urban Development (**HUD**) is the oversight agency, the following terms and conditions may apply to this Contract. In addition, Contractor shall comply with the Federal Labor Standards Provisions set forth in Form HUD-4010, available at <https://www.hud.gov/sites/dfiles/OCHCO/documents/4010.pdf> and must include Form HUD-4010 clauses as an appendix, or by reference, to all covered contracts. Also, contractors and subcontractors are required to insert them in any lower-tier subcontracts.

The terms and conditions outlined in this document (HUD General Provisions) must be included in their entirety by the CONTRACTOR in all purchase orders or subcontracts that are directly related to the Agreement, even though some of the terms and conditions might not apply to a particular kind of purchase order or subcontract.

These general provisions may be updated from time to time. It is the sole responsibility of the CONTRACTOR to be aware of any changes hereto, to amend and implement such changes and to ensure subcontracts terms and conditions are modified as necessary, if any.

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#### General Provisions:

##### 1. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion or correction.

##### 2. STATUTORY AND REGULATORY COMPLIANCE

CONTRACTOR shall comply with all laws and regulations applicable to the Community Development Block Grant-Disaster Recovery funds appropriated by: the Continuing Appropriations Act, 2018, and Supplemental Appropriations for Disaster Relief Requirements, 2017 (**Pub. L. 115-56**) approved on September 8, 2017, as amended; the Bipartisan Budget Act of 2018 (**Pub. L. 115-123**) approved on February 9, 2018, as amended; the Additional Supplemental Appropriations for Disaster Relief Act, 2019, (**Pub. L. 116-20**) approved on June 6, 2019, as amended; as well as including, but not limited to, the applicable Office of Management and Budget Circulars, which may impact the

administration of funds and/or set forth certain cost principles, including if certain expenses are allowed.

### **3. BREACH OF CONTRACT TERMS**

The Puerto Rico Department of Housing (**PRDOH**) reserves its right to all administrative, contractual, or legal remedies, including but not limited to suspension or termination of this Contract, in instances where the CONTRACTOR or any of its subcontractors violate or breach any Contract term. If the CONTRACTOR or any of its subcontractors violate or breach any Contract term, they shall be subject to such sanctions and penalties as may be appropriate. The duties and obligations imposed by the Contract documents, and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

### **4. REPORTING REQUIREMENTS**

The CONTRACTOR shall complete and submit all reports, in such form and according to such schedule, as may be required by PRDOH and/or the Government of Puerto Rico. The CONTRACTOR shall cooperate with all the PRDOH and/or the Government of Puerto Rico efforts to comply with HUD requirements and regulations pertaining to reporting, including but not limited to 24 C.F.R. §§ 85.40-41 (or 84.50-52, if applicable) and § 570.507, when applicable.

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### **5. ACCESS TO RECORDS**

The Government of Puerto Rico, the PRDOH, HUD, the Comptroller General of the United States, or any of their duly authorized representatives, shall have, at any time and from time to time during normal business hours, access to any work product, books, documents, papers, and records of the CONTRACTOR which are related to this Contract, for the purpose of inspection, audits, examinations, and making excerpts, copies and transcriptions.

### **6. MAINTENANCE/RETENTION OF RECORDS**

All records (files, data, work product) connected with this Contract will be turned over to PRDOH following the Agreement termination to be maintained for the remainder of the grant and post grant closeout.

### **7. SMALL AND MINORITY FIRMS, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS**

The CONTRACTOR will take necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used in subcontracting and purchases from material suppliers when possible. Steps include, but are not limited to:



- (i) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (ii) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (iii) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- (iv) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- (v) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

Additionally, for contracts of **\$10,000 or more**, the CONTRACTOR shall comply with PRDOH established quarterly reporting regarding contract and subcontract activity. This will enable PRDOH to complete federal reporting on all efforts to HUD as per the previously used HUD Form 2516 (Contract and Subcontract Activity) and data requested on this form.

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#### **8. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT**

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 C.F.R. Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements", and any implementing regulations issued by HUD.

#### **9. TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

The Proposer will comply with the provisions of Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives Federal funds or other Federal financial assistance. Programs that receive Federal funds cannot distinguish among individuals on the basis of race, color or national origin, either directly or indirectly, in the types, quantity, quality or timelines of program services, aids or benefits that they provide or the manner in which they provide them. This prohibition applies to intentional discrimination as well as to procedures, criteria or methods of administration that appear neutral but have a discriminatory effect on individuals because of their race, color, or national origin. Policies and practices that have such an effect must be eliminated unless a recipient can show that they were necessary to achieve a legitimate nondiscriminatory objective.

#### **10. SECTION 109 OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974**

The CONTRACTOR shall comply with the provisions of Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall on the grounds of race, color, national origin, religion or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title. Section 109 further provides that discrimination on the basis of age under the Age Discrimination Act of 1975 or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, as amended, is prohibited.

#### **11. SECTION 504 OF THE REHABILITATION ACT OF 1973**

The CONTRACTOR shall comply with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794), as amended, and any applicable regulations.

The CONTRACTOR agrees that no qualified individual with handicaps shall, solely on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives Federal financial assistance from HUD.

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#### **12. AGE DISCRIMINATION ACT OF 1975**

The CONTRACTOR shall comply with the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), as amended, and any applicable regulations. No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to, discrimination under, any program or activity receiving Federal financial assistance.

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#### **13. DEBARMENT, SUSPENSION, AND INELIGIBILITY**

The CONTRACTOR represents and warrants that it and its subcontractors are not debarred or suspended or otherwise excluded from or ineligible for participation in Federal assistance programs subject to 2 C.F.R. Part 2424.

#### **14. CONFLICTS OF INTEREST**

The CONTRACTOR shall notify the PRDOH as soon as possible if this Contract or any aspect related to the anticipated work under this Contract raises an actual or potential conflict of interest (as defined at 24 C.F.R. §578.95; 24 C.F.R. §570.489(g) and (h); and 24 C.F.R. §570.611, if applicable). The CONTRACTOR shall explain the actual or potential conflict in writing in sufficient detail so that the PRDOH is able to assess such actual or potential conflict. The CONTRACTOR shall provide the PRDOH any additional information necessary to fully assess and address such actual or potential conflict of interest. The CONTRACTOR shall accept any reasonable conflict mitigation strategy employed by the

PRDOH, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict.

#### **15. SUBCONTRACTING**

When subcontracting, the CONTRACTOR shall solicit for and contract with such subcontractors in a manner providing for fair competition. Some of the situations considered to be restrictive of competition include, but are not limited to:

- (i) Placing unreasonable requirements on firms in order for them to qualify to do business;
- (ii) Requiring unnecessary experience and excessive bonding;
- (iii) Noncompetitive pricing practices between firms or between affiliated Companies;
- (iv) Noncompetitive awards to consultants that are on retainer contracts,
- (v) Organizational conflicts of interest;
- (vi) Specifying only a brand name product instead of allowing an equal product to be offered and describing the performance of other relevant requirements of the procurement; and
- (vii) Any arbitrary action in the procurement process.

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The CONTRACTOR represents to the PRDOH that all work shall be performed by personnel experienced in the appropriate and applicable profession and areas of expertise, taking into account the nature of the work to be performed under this Contract.

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The CONTRACTOR will include these HUD General Provisions in every subcontract issued by it, so that such provisions will be binding upon each of its subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors.

#### **16. ASSIGNABILITY**

The CONTRACTOR shall not assign any interest in this Agreement, and shall not transfer any interest in the same (whether by assignment or novation) without prior written approval of the PRDOH.

#### **17. INDEMNIFICATION**

The CONTRACTOR shall indemnify, defend, and hold harmless the Government of Puerto Rico and PRDOH, its agents and employees, from and against any and all claims, actions, suits, charges, and judgments arising from or related to the negligence or willful misconduct of the CONTRACTOR in the performance of the services called for in this Contract.

#### **18. COPELAND "ANTI-KICKBACK" ACT**

The CONTRACTOR will comply with "anti-kickback" regulations found in section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 3145) known as the Copeland Act which applies to this contract subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States. The Copeland Act enforces minimum wage provisions of the Davis-Bacon Act and the various statutes for federally assisted construction, including those provisions which are not subject to Reorganization Plan No. 14 of 1950. This act also enforces overtime provisions of the Contract Work Hours and Safety Standards Act whenever they are applicable to construction work.

Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States, each week must provide a copy of its weekly payroll for all laborers and mechanics engaged on work covered by this part and part 5 of this chapter during the preceding weekly payroll period, accompanied by a statement of compliance certifying the accuracy of the weekly payroll information. This statement must be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, and must be on the back of Form WH-347, "Payroll (For Contractors Optional Use)" or on any form with identical wording.

Each certified payroll required under § 3.3 must be delivered by the contractor or subcontractor, within 7 days after the regular payment date of the payroll period, to a representative at the site of the building or work of the agency contracting for or financing the work, or, if there is no representative of the agency at the site of the building or work, the statement must be delivered by mail or by any other means normally assuring delivery by the contractor or subcontractor, within that 7 day time period, to the agency contracting for or financing the building or work. After the certified payrolls have been reviewed in accordance with the contracting or sponsoring agency's procedures, such certified payrolls must be preserved by the agency for a period of 3 years after all the work on the prime contract is completed and must be produced for inspection, copying, and transcription by the Department of Labor upon request.

The CONTRACTOR will abide by federal regulation in § 3.5 regarding permissible payroll deductions and follow guidance on obtaining approval from the Secretary of Labor for additional deductions.

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## 19. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The CONTRACTOR will comply with the provisions of the Contract Work Hours and Safety Standards Act applicable to this contract in excess of \$100,000 and subject to its overtime provisions.

(1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$32 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1).

(3) **Withholding for unpaid wages and liquidated damages —**

(i) **Withholding process.** The [write in the name of the Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this paragraph (b) on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally

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assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

- (ii) **Priority to withheld funds.** The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:
- (A) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
  - (B) A contracting agency for its reprocurement costs;
  - (C) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
  - (D) A contractor's assignee(s);
  - (E) A contractor's successor(s); or
  - (F) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

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- (4) **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (5) of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (5). In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

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- (5) **Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:
- (i) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
  - (ii) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
  - (iii) Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

(iv) Informing any other person about their rights under CWHSSA or this part.

## 20. DAVIS-BACON ACT

The CONTRACTOR will comply with labor standards provisions contained in the Davis-Bacon Act (46 Stat. 1494, as amended; 40 U.S.C. 3141 et seq.) and its related statutes ("Related Acts") for this contract, in excess of \$2,000, which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the laws referenced by § 5.1, the following clauses:

### (1) *Minimum wages* —

- (i) **Wage rates and fringe benefits.** All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of this section, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141 (2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(v) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph (a)(4) of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein:

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Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (a)(1)(iii) of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) **Frequently recurring classifications.**

(A) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph (a)(1)(iii) of this section, provided that:

- (1) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;
- (2) The classification is used in the area by the construction industry; and
- (3) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

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(B) The Administrator will establish wage rates for such classifications in accordance with paragraph (a)(1)(iii)(A)(3) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

(iii) **Conformance.**

(A) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is used in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) The conformance process may not be used to split, subdivide, or otherwise avoid the application of classifications listed in the wage determination.



(C) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(E) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs (a)(1)(iii)(C) and (D) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph (a)(1)(iii)(C) or (D) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

- (iv) **Fringe benefits not expressed as an hourly rate.** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (v) **Unfunded plans.** If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

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- (vi) **Interest.** In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

(2) **Withholding —**

- (i) **Withholding requirements.** The [write in name of Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in paragraph (a) of this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work (or otherwise working in construction or development of the project under a development statute) all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph (a)(3)(iv) of this section, the [Agency] may on its own initiative and after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (ii) **Priority to withheld funds.** The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:
- (A) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
  - (B) A contracting agency for its procurement costs;
  - (C) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
  - (D) A contractor's assignee(s);
  - (E) A contractor's successor(s); or
  - (F) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

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(3) **Records and certified payrolls —**

(i) **Basic record requirements —**

(A) **Length of record retention.** All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(B) **Information required.** Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(C) **Additional records relating to fringe benefits.** Whenever the Secretary of Labor has found under paragraph (a)(1)(v) of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(D) **Additional records relating to apprenticeship.** Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

(ii) **Certified payroll requirements —**

(A) **Frequency and method of submission.** The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the [write in name of appropriate Federal agency] if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the certified payrolls to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the [write in name of agency]. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic

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system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(B) **Information required.** The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph (a)(3)(i)(B) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the sponsoring government agency (or the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records).

(C) **Statement of Compliance.** Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

- (1) That the certified payroll for the payroll period contains the information required to be provided under paragraph (a)(3)(ii) of this section, the appropriate information and basic records are being maintained under paragraph (a)(3)(i) of this section, and such information and records are correct and complete;
- (2) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

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(D) **Use of Optional Form WH-347.** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(iii)(C) of this section.

(E) **Signature.** The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(F) **Falsification.** The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(G) **Length of certified payroll retention.** The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

(iii) **Contracts, subcontracts, and related documents.** The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

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(iv) **Required disclosures and access —**

(A) **Required record disclosures and access to workers.** The contractor or subcontractor must make the records required under paragraphs (a)(3)(i) through (iii) of this section, and any other documents that the [write the name of the agency] or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the [write the name of the agency] or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(B) **Sanctions for non-compliance with records and worker access requirements.** If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other

person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(C) **Required information disclosures.** Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the [write in name of appropriate Federal agency] if the agency is a party to the contract, or to the Wage and Hour Division of the Department of Labor. If the Federal agency is not such a party to the contract, the contractor, subcontractor, or both, must, upon request, provide the full Social Security number and last known address, telephone number, and email address of each covered worker to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the [write in name of agency], the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

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(4) **Apprentices and equal employment opportunity —**

(i) **Apprentices —**

(A) **Rate of pay.** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(B) **Fringe benefits.** Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits

listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(C) **Apprenticeship ratio.** The allowable ratio of apprentices to journeymen on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph (a)(4)(i)(D) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(4)(i)(A) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(D) **Reciprocity of ratios and wage rates.** Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

(ii) **Equal employment opportunity.** The use of apprentices and journeymen under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses contained in paragraphs (a)(1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the [write in the name of the Federal agency] may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate.

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(7) **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility.**

- (i) By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).
- (iii) The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

(11) **Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- (i) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;
- (ii) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;
- (iii) Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or
- (iv) Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

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## **21. TERMINATION FOR CAUSE**

### **(Applicable to contracts exceeding \$10,000)**

If, through any cause, the CONTRACTOR shall fail to fulfill in a timely and proper manner his or her obligations under this Contract, or if the CONTRACTOR shall violate any of the covenants, agreements, or stipulations of this Contract, the PRDOH shall thereupon have the right to terminate this Contract by giving written notice to the CONTRACTOR of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the CONTRACTOR under this Agreement shall, at the option of the PRDOH, become the PRDOH's property and the CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder. Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the Government of Puerto Rico and PRDOH for damages sustained by the Government of Puerto Rico and/or PRDOH by virtue of any breach of the Agreement by the CONTRACTOR, and the Government of Puerto Rico and/or PRDOH may withhold any payments to the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due to the Government of Puerto Rico and/or PRDOH from the CONTRACTOR is determined.

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## **22. TERMINATION FOR CONVENIENCE**

### **(Applicable to contracts exceeding \$10,000)**

The PRDOH may terminate this Contract at any time by giving at least ten (10) days' notice in writing to the CONTRACTOR. If the Contract is terminated by the PRDOH as provided herein, the CONTRACTOR will be paid for the time provided and expenses incurred up to the termination date.

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## **23. SECTION 503 OF THE REHABILITATION ACT OF 1973**

### **(Applicable to contracts exceeding \$10,000)**

The CONTRACTOR shall comply with Section 503 of the Rehabilitation Act of 1973 (29 U.S.C. § 793), as amended, and any applicable regulations.

Equal Opportunity for Workers with Disabilities:

- 1) The CONTRACTOR will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The CONTRACTOR agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:

- (i) Recruitment, advertising, and job application procedures;
- (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
- (iii) Rates of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the CONTRACTOR;
- (vii) Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the CONTRACTOR including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

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- 2) The CONTRACTOR agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.

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- 3) In the event of the CONTRACTOR's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
- 4) The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the CONTRACTOR'S obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The CONTRACTOR must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the CONTRACTOR may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair).
- 5) The CONTRACTOR will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the CONTRACTOR is bound by the terms of Section 503 of the Rehabilitation Act

of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.

- 6) The CONTRACTOR will include the provisions of this clause in every subcontract or purchase order in excess of \$10,000, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

#### **24. EQUAL EMPLOYMENT OPPORTUNITY**

##### **(Applicable to construction contracts and subcontracts exceeding \$10,000)**

The CONTRACTOR shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 C.F.R. chapter 60).

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During the performance of this Agreement, the CONTRACTOR agrees as follows:

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- 1) The CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The CONTRACTOR shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 2) The CONTRACTOR shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer setting forth the provisions of this non-discrimination clause. The CONTRACTOR shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- 3) The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

- 4) The CONTRACTOR will send to each labor union or representative of workers with which he or she has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers representative of the CONTRACTOR's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 5) The CONTRACTOR will comply with all provisions of Exec. Order No. 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- 6) The CONTRACTOR will furnish all information and reports required by Exec. Order No. 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- 7) In the event of the CONTRACTOR's non-compliance with the non-discrimination clause of this Agreement or with any of such rules, regulations or orders, this Agreement may be cancelled, terminated or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order 11246 and such other sanctions as may be imposed and remedies invoked as provided in Exec. Order No. 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.
- 8) CONTRACTOR shall incorporate the provisions of 1 through 7 above in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor so that such provisions shall be binding on such subcontractor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for non-compliance, provided, however, that in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

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## **25. CERTIFICATION OF NONSEGREGATED FACILITIES**

### **(Applicable to construction contracts exceeding \$10,000)**

The CONTRACTOR certifies that it does not maintain or provide for its establishments, and that it does not permit employees to perform their services at any location, under its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for employees any segregated facilities at any of its establishments, and it will not permit employees to perform their services at any location under its control where segregated facilities are maintained. The CONTRACTOR agrees that a breach of this certification is a violation of the equal opportunity clause of this Agreement.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason.

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The CONTRACTOR further agrees that (except where it has obtained for specific time periods) it will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause; that it will retain such certifications in its files; and that it will forward the preceding notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).

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## **26. CERTIFICATION OF COMPLIANCE WITH CLEAN AIR AND WATER ACTS**

### **(Applicable to contracts exceeding \$100,000)**

#### **CLEAN AIR ACT**

- 1)--The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 2)--The CONTRACTOR agrees to report each violation to the PRDOH and understands and agrees that the PRDOH will, in turn, report each violation as required to assure notification to the Government of Puerto Rico, HUD, and the appropriate Environmental Protection Agency Regional Office.

- 3)--The CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by HUD.

#### **WATER POLLUTION CONTROL ACT**

- 1)--The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251, *et seq.*
- 2)--The CONTRACTOR agrees to report each violation to the PRDOH and understands and agrees that the PRDOH will, in turn, report each violation as required to assure notification to the Government of Puerto Rico, HUD, and the appropriate Environmental Protection Agency Regional Office.
- 3)--The CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by HUD.

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The CONTRACTOR and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 U.S.C. § 7401 *et seq.*, the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 *et seq.*, and the regulations of the Environmental Protection Agency with respect thereto, at 5 C.F.R. Part 919 Subpart E and 24 C.F.R. Part 58 as amended, Section 508 of the Clean Water Act (33 U.S.C. § 1368) and Executive Order 11738.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the owner, the following:

- 1) A stipulation by the CONTRACTOR or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the Excluded Party Listing System pursuant to 40 C.F.R. Part 32 or on the List of Violating Facilities issued by the Environmental Protection Agency (**EPA**) pursuant to 24 C.F.R. Part 58, as amended.
- 2) Agreement by the CONTRACTOR to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. § 7414) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 U.S.C. § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified

in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

- 3) A stipulation that as a condition for the award of the Agreement, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the Agreement, is under consideration to be listed on the Excluded Party Listing System or the EPA List of Violating Facilities.
- 4) Agreement by the CONTRACTOR that he or she will include, or cause to be included, the criteria and requirements in paragraph (1) through (4) of this section in every nonexempt subcontract and requiring that the CONTRACTOR will take such action as the government may direct as a means of enforcing such provisions.

**27. ANTI-LOBBYING (Applicable to contracts exceeding \$100,000)**

By the execution of this Contract, the CONTRACTOR certifies, to the best of his or her knowledge and belief, that:

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- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the CONTRACTOR, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the CONTRACTOR shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions.
- 3) The CONTRACTOR shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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

## **28. BONDING REQUIREMENTS**

**(Applicable to construction and facility improvement contracts exceeding \$100,000)**

The CONTRACTOR shall comply with Puerto Rico bonding requirements, unless they have not been approved by HUD, in which case the CONTRACTOR shall comply with the following minimum bonding requirements:

- 1) A bid guarantee from each bidder equivalent to five percent (5%) of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his or her bid, execute such contractual documents as may be required within the time specified.
- 2) A performance bond on the part of the CONTRACTOR for one hundred percent (100%) of the Agreement price. A "performance bond" is one executed in connection with a contract to secure the fulfillment of all the CONTRACTOR's obligations under such contract.
- 3) A payment bond on the part of the CONTRACTOR for one hundred percent (100%) of the Agreement price. A "payment bond" is one executed in connection with a contract to assure payment as required by the law of all persons supplying labor and material in the execution of the work provided for in the contract.

## **29. SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968 (As required by applicable thresholds)**

- 1) The work to be performed under this Agreement is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (**Section 3**). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

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- 2) The parties to this Agreement agree to comply with HUD's regulations in 24 C.F.R. Part 75 which implement Section 3. As evidenced by their execution of this Agreement, the parties to this Agreement certify that they are under no contractual or other impediment that would prevent them from complying with the Part 75 regulations.
- 3) The CONTRACTOR agrees to send to each labor organization or representative of workers with which the CONTRACTOR has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the CONTRACTOR's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- 4) The CONTRACTOR agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. Part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. Part 75. The CONTRACTOR will not subcontract with any subcontractor where the CONTRACTOR has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. Part 75.
- 5) The CONTRACTOR will certify that any vacant employment positions, including training positions, that are filled: (1) after the CONTRACTOR is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 C.F.R. Part 75 require employment opportunities to be directed, were not filled to circumvent the CONTRACTOR's obligations under 24 C.F.R. Part 75.
- 6) Noncompliance with HUD's regulations in 24 C.F.R. Part 75 may result in sanctions, termination of this Agreement for default, and debarment or suspension from future HUD assisted contracts.
- 7) With respect to work performed in connection with Section 3 covered Indian housing assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (46 U.S.C. § 5307) also applies to the work to be performed under this Agreement. Section 7(b) requires that to the greatest extent feasible: (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian

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organizations and Indian-owned Economic Enterprises. Parties to this Agreement that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

- 8) The Contractor agrees to submit, and shall require its subcontractors to submit to them, quarterly reports to the PRDOH detailing the total number of labor hours worked on the Section 3 Project, the total number of labor hours worked by Section 3 Workers, and the total number of hours worked by Targeted Section 3 Workers, and any affirmative efforts made during the quarter to direct hiring efforts to low- and very low-income persons, particularly persons who are Section 3 Workers and Targeted Section 3 Workers.

### **30. FAIR HOUSING ACT**

CONTRACTOR shall comply with the provisions of the Fair Housing Act of 1968, as amended. The act prohibits discrimination in the sale or rental of housing, the financing of housing or the provision of brokerage services against any person on the basis of race, color, religion, sex, national origin, handicap or familial status. The Equal Opportunity in Housing Act prohibits discrimination against individuals on the basis of race, color, religion, sex or national origin in the sale, rental, leasing or other disposition of residential property, or in the use or occupancy of housing assisted with Federal funds.

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### **31. ENERGY POLICY AND CONSERVATION ACT**

CONTRACTOR shall comply with mandatory standards and policies relating to energy efficiency as contained in the Government of Puerto Rico's energy conservation plan, issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq).

### **32. HATCH ACT**

CONTRACTOR agrees to comply with mandatory standards and policies relating to Hatch Act, Public Law 76-252, as amended.

The Hatch Act applies to political activities of certain state and local employees. As a Puerto Rico Department of Housing CONTRACTOR, you may do any of the following activities: be a candidate in nonpartisan elections; attend political meetings and conventions; contribute money; campaign in partisan elections; and hold office in political parties.

The CONTRACTOR may not do the following activities: be a candidate in partisan elections; use official influence to interfere in elections; coerce political contributions from

subordinates in support of political parties or candidates. The office of special counsel operates a website that provides guidance concerning hatch act issues.

### **33. HEALTH AND SAFETY STANDARDS**

All parties participating in this project agree to comply with Sections 107 and 103 of the Contract Work Hours and Safety Standards Act. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions, which are unsanitary, hazardous, or dangerous to his or her health and safety as determined under construction, safety, and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market, or contracts for transportation.

### **34. PERSONNEL**

The CONTRACTOR represents that it has, or will secure at its own expense, all personnel required in performing the services under this Agreement. Such personnel shall not be employees of, or have any contractual relationship with, the contracting party. All the services required hereunder will be performed by the CONTRACTOR or under its supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and local law to perform such services. No person who is serving sentence in a penal or correctional institution shall be employed on work under this Contract.

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### **35. WITHHOLDING OF WAGES**

If in the performance of this Agreement, there is any underpayment of wages by the CONTRACTOR or by any subcontractor thereunder, the PRDOH may withhold from the CONTRACTOR out of payment due to him or her an amount sufficient to pay to employees underpaid the difference between the wages required thereby to be paid and the wages actually paid such employees for the total number of hours worked. The amounts withheld may be disbursed by the PRDOH for and on account of the CONTRACTOR or subcontractor to the respective employees to whom they are due.

### **36. CLAIMS AND DISPUTES PERTAINING TO WAGE RATES**

Claims and disputes pertaining to wage rates or to classifications of professional staff or technicians performing work under this Contract shall be promptly reported in writing by the CONTRACTOR to the PRDOH for the latter's decision, which shall be final with respect thereto.

### **37. DISCRIMINATION BECAUSE OF CERTAIN LABOR MATTERS**

No person employed on the services covered by this Agreement shall be discharged or in any way discriminated against because he or she has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable hereunder to his or her employer.

### **38. INTEREST OF MEMBERS OF LOCAL PUBLIC AGENCY AND OTHERS**

The CONTRACTOR agrees to establish safeguards to prohibit employees from using positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have a family, business, or other tie. The CONTRACTOR will be aware of and avoid any violation of the laws of this State which prohibit municipal officers and employees from having or owning any interest or share, individually or as agent or employee of any person or corporation, either directly or indirectly, in any contract made or let by the governing authorities of such municipality for the construction or doing of any public work, or for the sale or purchase of any materials, supplies or property of any description, or for any other purpose whatsoever, or in any subcontract arising therefrom or connected therewith, or to receive, either directly or indirectly, any portion or share of any money or other thing paid for the construction or doing of any public work, or for the sale or purchase of any property, or upon any other contract made by the governing authorities of the municipality, or subcontract arising therefore or connected therewith.

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The CONTRACTOR will also be aware of and avoid any violation of the laws of this State which prescribe a criminal penalty for any public officer who has an interest in any contract passed by the board of which he or she is a member during the time he or she was a member and for one year thereafter.

### **39. INTEREST OF CERTAIN FEDERAL OFFICERS**

No member of, or delegate to, the Congress of the United States and no Resident Commissioner shall be admitted any share or part of this Agreement or to any benefit to arise therefrom.

### **40. INTEREST OF CONTRACTOR**

The CONTRACTOR agrees that it presently has no interest and shall not acquire any interest, direct or indirect, in the above described project or any parcels therein or any other interest which would conflict in any manner or degree with the performance of the Work hereunder. The CONTRACTOR further agrees that no person having any such interest shall be employed in the performance of this Agreement.

#### **41. POLITICAL ACTIVITY**

The CONTRACTOR will comply with the provisions of the Hatch Act (5 U.S.C. § 1501 et seq.), which limits the political activity of employees.

#### **42. RELIGIOUS ACTIVITY**

The CONTRACTOR agrees to abstain from using any funds related to this Agreement for inherently religious activities prohibited by 24 C.F.R. § 570.200(j), such as worship, religious instruction, or proselytization.

#### **43. FLOOD DISASTER PROTECTION ACT OF 1973**

The CONTRACTOR will ensure that procedures and mechanisms are put into place to monitor compliance with all flood insurance requirements as found in the Flood Disaster Protection Act of 1973, 24 C.F.R. § 570.605.

#### **44. LEAD BASED PAINT**

The CONTRACTOR must comply with the regulations regarding lead-based paint found at 24 C.F.R. Part 35 on LEAD-BASED PAINT POISONING PREVENTION IN CERTAIN RESIDENTIAL STRUCTURES with regards to all housing units assisted using CDBG-DR funds.

#### **45. VALUE ENGINEERING**

**(Applicable to construction contracts exceeding \$2,000 when required by Federal program legislation)**

The CONTRACTOR must comply with the regulations regarding systematic and organized approach to analyze functions of systems, equipment, facilities, services, and materials to ensure they achieve their essential functions at the lowest cost consistent to life cycle in execution, reliability, quality, and safety, in accordance with 24 C.F.R. § 200.318(g).

#### **46. UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT (URA)**

Every project funded in part or in full by Community Development Block Grant – Disaster Recovery (CDBG-DR) funds, and all activities related to that project, are subject to the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA), as amended, 42 U.S.C. § 4601 et seq., and section 104(d) of the Housing and Community Development Act of 1992, as amended (HCDA), 42 U.S.C. § 5304(d), except where waivers or alternative requirements have been provided by the U.S. Department of Housing and Urban Development (HUD). The implementing regulations for URA are at 49 C.F.R. Part 24, and the regulations for section 104(d) are at 24 C.F.R. Part 42, subpart C. Additionally, HUD has established regulations specific to CDBG-funded housing activities at 24 C.F.R. § 570.606. PRDOH has also established the Uniform Relocation Assistance Guide & Residential Anti-Displacement and Relocation Assistance

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Plan (URA & ADP Guide) which provides guidance and requirements regarding URA compliance and minimizing displacement that are applicable to all CDBG-DR programs. The primary purpose of these laws and regulations is to provide uniform, fair, and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects.

When CDBG-DR funds are planned, intended, or used for any activity or phase of a project and the phases are interdependent, URA applies to that activity or project. This includes any property acquisition, even if CDBG-DR funds are not used to fund the purchase, if the contract to acquire property is executed with the intention of seeking CDBG-DR funds to complete the project or an interdependent phase of the project. Contractors are responsible for ensuring URA compliance throughout the design, proposal, and implementation of any project that includes real property acquisition or displacement of residential or business occupants.

#### **47. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSH ACT)**

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The CONTRACTOR shall comply with the Occupational Safety and Health Act of 1970 (OSH Act) as supplemented by the Department of Labor regulations. This Act created the Occupational Safety and Health Administration (OSHA). OSHA sets and enforces protective standards of safety and health in the workplace. Under the OSH Act, employers have a responsibility to provide a safe workplace.

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Employers must comply with the 29 CFR 1910 General Obligations Clause of the OSH Act. This clause requires employers to maintain their workplaces free from serious recognized hazards. This includes the adoption of safety and health guidelines and the subsequent training of the employer's workforce in these.

CONTRACTORS whose Scope of Work includes construction activities must comply with the General Clauses, and also with provisions of 29 CFR 1926 "Construction Health and Safety Regulations". It shall be a condition of any contract for construction, alteration and/or repair, including painting and decorating, that no contractor or subcontractor for any part of the contract work shall require any worker or mechanic employed in the performance of the contract to work in an environment or in unhealthy, hazardous or dangerous working conditions to their health or safety.

#### **48. FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA)**

The Federal Funding Accountability and Transparency Act of 2006 (**FFATA**), as amended, was signed with the intent of reducing wasteful government spending and providing

citizens with the ability to hold the government accountable for spending decisions. 2 C.F.R. § Part 170 outlines the requirements of recipients' in reporting information on subawards and executive total compensation under FFATA legislation. Any non-Federal entity that receives or administers Federal financial assistance in the form of grants, loans, loan guarantees, subsidies, insurance, food commodities, direct appropriations, assessed and voluntary contributions; and/or other financial assistance transactions that authorize the non-Federal entities' expenditure of Federal fund, is subject to these requirements. Prime contract awardees and prime grant awardees are required to report against subcontracts and subgrants awarded in the FFATA Subaward Reporting System (FSRS), the reporting tool for Federal prime awardees. This information reported will then be displayed on a public and searchable website: [www.USASpending.gov](http://www.USASpending.gov).

#### **49. PROCUREMENT}**

The Uniform Guidance procurement requirements (2 C.F.R. § Part 200, Subpart D) went into effect on July 1, 2018. These requirements are applicable to CDBG-DR funded projects, or as provided by 83 Federal Register 5844 VI A(1)(b)(2) permits a state grantee to elect to follow its own procurement policy. These policies and procedures ensure that Federal dollars are spent fairly and encourage open competition at the best level of service and price.

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#### **50. CHANGE ORDERS TO CONTRACTS**

Change orders are issued when the initial agreed-upon pricing or work to be completed requires modification. First, the CONTRACTOR must complete a Change Order Request Form. This form and supporting documentation must be delivered to the PRDOH for review. Each change order must have a cost analysis. Once the Project Manager approves the change order, it is returned to the contractor for execution. Change orders are only invoiced on the final draw and categorized as "change orders." The amount listed on the invoice must match the previously approved amount and must be cost-reasonable. The PRDOH is responsible for verifying cost reasonableness. Verification documentation for cost reasonableness becomes an attachment to the change order.

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#### **51. LANGUAGE ACCESS PLAN**

Executive Order No. 13166, signed on August 11, 2000, requires programs, subrecipients, contractors, subcontractors, and/or developers funded in whole or in part with CDBG-DR financial assistance to ensure fair and meaningful access to programs and services for families and individuals with Limited English Proficiency (**LEP**) and/or deaf/hard of hearing. Fair access is ensured through the implementation of a Language Assistance Plan (**LAP**), which includes non-English-based outreach, translation services of vital documents, free language assistance services, and staff training. Vital documents are defined as depending on the importance of the program, information, encounter, or service

involved, and the consequence to the LEP person if the information in question is not provided accurately or in a timely manner.

The Fair Housing and Equal Opportunity Language Access Plan for all CDBG-DR/MIT Programs states that Subrecipient Agreements will include requirements for the provisions of LEP and Limited Spanish Proficient (**LSP**) resources by subrecipients for all public participatory activities, including marketing, outreach, applications, vital document translations as well as monitoring requirements. Subrecipients and contractors have to comply with the following LEP/LSP requirements:

- a. Provide Spanish translations for all outreach, marketing, application materials, and vital documents, and advertise the availability of language assistance services.
- b. Requirements will also be added for subrecipients, contractors, and other administering entities that interact with LEP/LSP individuals as part of the implementation of the CDBG-DR/MIT Programs to:
  - i. Develop and maintain operating procedures that address LEP/LSP assistance;
  - ii. Maintain inquiry and application logs that specify language of choice;
  - iii. Submit documentation to PRDOH supporting subrecipient efforts to further LEP access;
  - iv. Submit translated documentation to PRDOH for maintenance in PRDOH's project files; and  
Require periodic monitoring by PRDOH for compliance with LEP/LSP requirements.

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CDBG-DR/MIT subrecipients and contractors, as well as any other administering entities that interact with LEP/LSP individuals as part of the implementation of the programs, will be required to maintain inquiry and application logs that document the language preference of persons seeking to apply or participate in CDBG-DR/MIT funded activities.

## **52. PERSONALLY IDENTIFIABLE INFORMATION**

In accordance with 2 C.F.R. § 200.303, regarding internal controls of a non-Federal entity, a grantee must guarantee the protection of all Personally Identifiable Information (PII) obtained. The program will enact necessary measures to ensure PII of all applicants is safeguarded as to avoid release of private information. If a contractor or employee should experience any loss or potential loss of PII, the program shall be notified immediately of the breach or potential breach.



### **53. PROCUREMENT OF RECOVERED MATERIALS**

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (**EPA**) at 40 C.F.R. part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

**END OF DOCUMENT**

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**APPENDIX C**  
**CONTRACTOR CERTIFICATION**  
**FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO**  
**CONTRACTS REVIEW POLICY**  
**AIREKO ENERGY SOLUTION LLC**

The following is hereby certified to the Oversight Board regarding the request for authorization to execute a contract for Construction Management Services by and between the **Puerto Rico Department of Housing** and **AIREKO ENERGY SOLUTION LLC**:

1. The expected subcontractor(s) in connection with the proposed contract<sup>1</sup> is (are) the following:

a. Name of individual or firm, including names of principals and principal stakeholders.

- a. Gabriel Rivera, PE (Verdifica, PSC – Sole Owner)
- b. Angel Zayas Duchesne, PE (AZ Engineering, LLC – Sole Owner)
- c. Carlos Quiñones, PE (CJ Quiñones Engineering, PSC – Sole Owner)
- d. Jorge Echandia, PE (Ecological, President)
- e. Moises Almansa, (Universal Solar, President)
- f. Jorge A. Torres Scandali, (Consulting Engineer, PSC – Sole Owner)
- g. Waldemar E. Toro Dávila, PE (Aireko Energy Solution, LLC -Partner & President)

"Principal stakeholders" shall mean all entities or individuals with an ownership or membership interest, as the case may be, equal to or higher than ten percent (10%) in a subcontractor. "Principals" shall mean persons and entities that have full authority to act on behalf of each subcontractor)

b. Principal terms and conditions of the contractual relation and role of the subcontractor

- a. Verdifica – Electrical Engineering Services
- b. AZ Engineering – Electrical Engineering Services
- c. CJQ Engineering – Structural Engineering Services
- d. Ecological – Roof Penetrations
- e. Universal Solar – Installer of Water System Service
- f. Jorge A. Torres Scandali – Mechanical Engineering Services

Principal terms and conditions to our subcontractors will be according to time frames and program's specifications as per our contract with Puerto Rico Department of Housing.

c. Amount of proposed contract payable to each subcontractor

- a. Verdifica – \$48,000.00
- b. AZ Engineering – \$32,000.00
- c. CJQ Engineering – \$37,000.00
- d. Ecological - \$15,000.00
- e. Universal Solar - \$355,000.00
- f. Jorge A. Torres Scandali - \$15,000.00

<sup>1</sup> As used herein, the term "contract" is inclusive of any amendments, modifications or extensions.

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2. Neither the contractor nor any of its owners<sup>2</sup>, partners, directors, officials, or employees, has agreed to share or give a percentage of the contractor's compensation under the contract to, or otherwise compensate, any third party, whether directly or indirectly, in connection with the procurement, negotiation, execution or performance of the contract, except as follows:

a. Name of individual or firm, including names of principals or owners of the latter

Not Applicable

b. Principal terms and conditions of the compensation sharing arrangement

Not Applicable

3. To the best knowledge of the signatory (after due investigation), no person has unduly intervened in the procurement, negotiation or execution of the contract, for its own benefit or that of a third person, in contravention of applicable law.

4. To the best knowledge of the signatory (after due investigation), no person has: (i) offered, paid, or promised to pay money to; (ii) offered, given, or promised to give anything of value to; or (iii) otherwise influenced any public official or employee with the purpose of securing any advantages, privileges or favors for the benefit of such person in connection with the contract (such as the execution of a subcontract with contractor, beneficial treatment under the contract, or the written or unwritten promise of a gift, favor, or other monetary or non-monetary benefit).

5. Neither the contractor, nor any of its owners, partners, directors, officials or employees or, to the best of its knowledge (after due investigation), its representatives or sub-contractors, has required, directly or indirectly, from third persons to take any action with the purpose of influencing any public official or employee in connection with the procurement, negotiation or execution of the contract, in contravention of applicable law.

6. Any incorrect, incomplete or false statement made by the contractor's representative as part of this certification shall cause the nullity of the proposed contract, and the contractor must reimburse immediately to the Commonwealth any amounts, payments, or benefits received from the Commonwealth under the proposed contract.

[The above certifications shall be signed under penalty of perjury by the Chief Executive Officer (or equivalent highest rank officer) in the following form:]

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<sup>2</sup> For purposes of this certification, a contractor's "owner" shall mean any person or entity with more than a ten percent (10%) ownership interest in the contractor.

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I hereby certify under penalty of perjury that the foregoing is complete, true, and correct  
on this 2 day of july of 2024.

W. TORO  
\_\_\_\_\_  
Signature

07/08/24  
\_\_\_\_\_  
Date

Waldemar E. Toro Dávila  
\_\_\_\_\_  
Printed Name

Partner & President  
\_\_\_\_\_  
Position

W. TORO  
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W. E. T.  
W. E. T.



## ATTACHMENT H

### NON-CONFLICT OF INTEREST CERTIFICATION

### AIREKO ENERGY SOLUTION LLC

The CONTRACTOR certifies that:

1. No public servant of this executive agency has a pecuniary interest in this contract, subrecipient agreement, purchase, or commercial transaction.
2. No public servant of this executive agency has requested me or accepted from me, directly or indirectly, for him (her), for any member of his family unit or for any person, gifts, bonuses, favors, services, donations, loans or anything else of monetary value.
3. No public servant (s) requested or accepted any good of economic value, linked to this transaction, from any person of my entity as payment for performing the duties and responsibilities of their employment.
4. No public servant has requested from me, directly or indirectly, for him (her), for any member of his or her family unit, or for any other person, business, or entity, something of economic value, including gifts, loans, promises, favors or services in exchange for the performance of said public servant is influenced in my favor or of my entity.
5. I have no kinship relationship, within the fourth degree of consanguinity and second by affinity, with any public servant who has the power to influence and participate in the institutional decisions of this executive agency.

The above certifications shall be signed under penalty of perjury by the Chief Executive Officer (or equivalent highest rank officer) in the following form:

"I hereby certify under penalty of perjury that the foregoing is complete, true, and correct."

Signature

Date

07/01/24

Printed Name

Waldemar E. Toro Dávila

Position

Partner & President

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