

Scope of Work – NPVFCO – HVAC Equipment Upgrade and Oil to Gas Conversion project

1. Project Overview

This project involves the removal of legacy R-22 air conditioning equipment, hydronic coils, an oil-fired boiler, and an oil tank. They will be replaced with high-efficiency natural gas (NG) furnaces, R-454B cooling systems, a condensing NG boiler, and modulating attic heat pumps.

- Replace two (2) current lower-level air-handlers with Colman 100K BTUH, 96% AFUE, high efficiency, condensing, NG furnaces (Z9ET100C20SMPS1).
 - Hydronic hot water coils removed from ductwork.
 - Combustion venting/fresh air piping ran to each unit.
 - NG ran into utility closet and connected to each furnace.
 - Matching R-454B evaporator coils installed on each furnace
- Replace two (2) current R-22 lower-level a/c condensers with Coleman 14 SEER2, 3.5-Ton, R-454B condensing units (XC440E2S11)
- Replace three R-22, a/c only systems in the attic with three (3) Coleman 18 SEER2, 4-Ton, R454B, modulating heat pumps (HH860E2S11) and matching ECM air-handler (JHE48C5CG2SS1).
 - Attic heat pump systems will be connected to existing duct work and hydronic coils for auxiliary back-up heat.
- Replace the current oil-fired boiler and install a Velocity 150K BTUH, 95% AFUE, adaptive combustion, condensing, NG boiler (PHTM2150HNG1HUA).
 - The NG line will be extended into the current boiler room.
 - The new heating system will be connected to the existing piping system for the attic heat pump systems.
- The existing refrigerant copper line sets will be flushed out to remove contaminants.
- All necessary modifications to ductwork, piping, and electrical supplies to complete the installation.
- Fresh air ducted to each return
- Removal and disposal of current R-22 systems, oil tank, and boiler

Phase 1: Demolition and Disposal

- **Equipment Removal:** Disconnect, remove, and dispose of two lower-level air handlers and two R-22 A/C condensers.
- **Attic Systems:** Disconnect and remove three R-22 attic A/C-only systems.
- **Boiler & Tank:** Safely remove and dispose of the existing oil-fired boiler and oil tank.
- **Refrigerant Handling:** Recover and dispose of all R-22 refrigerant according to EPA regulations.

Phase 2: Lower-Level Furnace & Cooling Installation

- **Furnace Installation:** Install two Coleman 100K BTUH, 96% AFUE condensing NG furnaces (Model: Z9ET100C20SMPS1).
- **Ductwork Modification:** Remove existing hydronic hot water coils from the ductwork.
- **Piping & Venting:** Run dedicated PVC venting and fresh air piping for each unit.
- **Gas Infrastructure:** Extend the NG line into the utility closet and connect to both furnaces.
- **Evaporator Coils:** Install matching R-454B evaporator coils on each furnace.
- **Condenser Installation:** Install two Coleman 14 SEER2, 3.5-Ton, R-454B condensing units (Model: XC440E2S11).

Phase 3: Attic Heat Pump Installation

- **Equipment Installation:** Install three Coleman 18 SEER2, 4-Ton, R-454B modulating heat pumps (Model: HH860E2S11).
- **Air Handlers:** Pair heat pumps with three matching ECM air-handlers (Model: JHE48C5CG2SS1).
- **System Integration:** Connect new attic systems to existing ductwork.
- **Auxiliary Heat:** Tie systems into existing hydronic coils for auxiliary backup heat.

Phase 4: Boiler Installation & Gas Line Extension

- **Boiler Installation:** Install one Velocity 150K BTUH, 95% AFUE, adaptive combustion, condensing NG boiler (Model: PHTM2150HNG1HUA).
- **Gas Line Extension:** Extend the main NG line into the current boiler room and connect.
- **Hydronic Integration:** Connect the new boiler system to the existing piping system feeding the attic heat pump coils.

Phase 5: Infrastructure & System Integration

- **Line Set Remediation:** Flush all existing refrigerant copper line sets to completely remove R-22 contaminants.
- **Ductwork Adjustments:** Perform all necessary modifications to existing ductwork for proper airflow and fitment.
- **Piping & Electrical:** Execute all required modifications to plumbing, gas piping, and electrical supplies.

3. Project Deliverables

- Fully operational heating, cooling, and hydronic backup systems.
- Documented pressure tests and refrigerant charge logs for R-454B systems.
- Final combustion analysis report for the new boiler and furnaces.
- Disposal manifests for the oil tank, old boiler, and recovered R-22 refrigerant.
- Manufacturer warranty registration certificates.

PA DCED CONTRACTOR REQUIREMENTS AS PER CONTRACT

Contractor Responsibility.

- (A) Definition. For the purpose of these provisions, the term "Contractor" means as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth. The term also includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.
- (B) Contractor Representations.
 - (i) The Contractor represents for itself and its subgrantees, contractors, and subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this agreement, that neither the Contractor, nor any of its subgrantees, contractors, and subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot make this representation, the Contractor shall submit, along with the agreement, a written explanation of why the certification cannot be made.
 - (ii) The Contractor represents that, as of the date of its execution of this agreement, it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal, if any liabilities or obligations exist, or is subject to a duly approved deferred payment plan if any liabilities exist.
- (C) Notification. The Contractor shall notify the Commonwealth if, at any time during the term of the agreement, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best of its knowledge, any of its subgrantees, contractors, or subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. The Contractor shall provide this notification within 15 days of the date of suspension or debarment.
- (D) Default. The Contractor's failure to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government constitutes an event of default of the agreement with the Commonwealth.
- (E) Reimbursement. The Contractor shall reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this agreement or any other agreement

between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. These costs include, but are not limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

- (F) Suspension and Debarment List. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by visiting the eMarketplace website at <http://www.emarketplace.state.pa.us> and clicking the Debarment list tab.

(6) Americans With Disabilities Act.

- (A) No Exclusion. Pursuant to the Americans with Disabilities Act, 42 U.S. Code § 12101, et seq., no qualified individual with a disability may, on the basis of the disability, be excluded from participation in this contract or from activities provided for under this agreement.
- (B) Compliance. For all goods and services provided pursuant to this agreement, the Grantee shall comply with Title II of the Americans with Disabilities Act, the "General Prohibitions Against Discrimination" set forth in 28 C. F. R. § 35.130, and all other regulations promulgated under Title II of the Americans with Disabilities Act that apply to state and local governments.
- (C) Indemnification. The Grantee shall indemnify the Commonwealth against all third-party claims, suits, demands, losses, damages, costs, and expenses, including without limitation, litigation expenses, attorneys' fees, and liabilities, arising out of or in connection with the Grantee's failure or its employee's or agent's failure to comply with the provisions of paragraph a, as determined by the Commonwealth in its sole discretion.

(7) Applicable Law and Forum.

This contract is governed by and must be interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania and waives any claim or defense that such forum is not convenient or proper. Any Pennsylvania court or tribunal has in personam jurisdiction over the Contractor, and the Contractor consents to service of

process in any manner authorized by Pennsylvania law. This provision may not be interpreted as a waiver or limitation of the Commonwealth's rights or defenses.

(8) Right to Know Law.

(A) Applicability. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this contract.

(B) Grantee Assistance. If the Commonwealth needs the Grantee's assistance in any matter arising out of the RTKL related to this contract, the Commonwealth shall notify the Grantee that it requires the Grantee's assistance, and the Grantee shall provide to the Commonwealth:

(i) access to, and copies of, any document or information in the Grantee's possession (Requested Information) arising out of this contract that the Commonwealth reasonably believes is a public record under the RTKL, within ten calendar days after receipt of written notification; and

(ii) any other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this contract.

(C) Trade Secret or Confidential Proprietary Information. If the Grantee considers the Requested Information to include a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL; or other information that the Contractor considers exempt from production under the RTKL, the Grantee shall notify the Commonwealth and provide, within seven calendar days of receipt of the written notice a written statement, signed by a representative of the Grantee, that explains why the requested material is exempt from public disclosure under the RTKL. If the Commonwealth determines that the Requested Information is clearly not exempt from disclosure, the Grantee shall provide the Requested Information to the Commonwealth within five business days of receipt of written notice of the Commonwealth's determination.

(D) Reimbursement.

(i) Commonwealth Reimbursement. If the Grantee fails to provide the Requested Information and the Commonwealth is ordered to produce the Requested Information, the Grantee shall reimburse the Commonwealth for any

damages, penalties, or costs that the Commonwealth may incur as a result of the Grantee's failure, including any statutory damages assessed against the Commonwealth.

- (ii) Contractor Reimbursement. The Commonwealth will reimburse the Grantee for any costs that the Grantee incurs as a direct result of complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL.
 - (E) Challenges of Commonwealth Release. The Grantee may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, the Grantee shall reimburse the Commonwealth for any legal expenses incurred by the Commonwealth as a result of the challenge, including any damages, penalties or costs that the Commonwealth may incur as a result of the Grantee's legal challenge, regardless of the outcome.
 - (F) Waiver. As between the parties, the Grantee waives all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL.
 - (G) Survival. The Grantee's obligations contained in this Section survive the termination or expiration of this contract.
- (9) Offset.
- The Commonwealth may set off the amount of any state tax liability or other obligation of the Grantee, or its subsidiaries, owed to the Commonwealth against any payments due the Grantee under any contract between the Commonwealth and Grantee.
- (10) Automated Clearing House (ACH) Payments.
- (A) Payment Method. The Commonwealth shall make payments to the Grantee through the Automated Clearing House (ACH). Within 10 days of the grant award, the Grantee must submit or must have submitted its ACH information within its user profile in the Commonwealth's Master Database. The Grantee may enroll to receive remittance information via electronic addenda and email (e-Remittance). ACH and e-Remittance information is available at the following:

<https://www.budget.pa.gov/Services/ForVendors/Pages/Direct-Deposit-and-e-Remittance.aspx>.

- (B) Unique Identifier. The Grantee must submit a unique invoice number with each invoice submitted. The Commonwealth shall list the Grantee's unique invoice number on its ACH remittance advice to enable the Grantee to properly apply the state agency's payment to the respective invoice or program.
 - (C) ACH Information in the Commonwealth's Master Database. The Grantee shall ensure that the ACH information contained in Commonwealth's Master Database is accurate and complete. The Grantee's failure to maintain accurate and complete information may result in delays in payments.
- (11) Worker Protection and Investment.

The Grantee shall comply with all applicable Pennsylvania state labor laws and worker safety laws including, but not limited to, the following:

- (A) Construction Workplace Misclassification Act;
- (B) Employment of Minors Child Labor Act;
- (C) Minimum Wage Act;
- (D) Prevailing Wage Act;
- (E) Equal Pay Law;
- (F) Employer to Pay Employment Medical Examination Fee Act;
- (G) Seasonal Farm Labor Act;
- (H) Wage Payment and Collection Law;
- (I) Industrial Homework Law;
- (J) Construction Industry Employee Verification Act;
- (K) Act 102: Prohibition on Excessive Overtime in Healthcare;

(L) Apprenticeship and Training Act; and

(M) Inspection of Employment Records Law.

(c) Reimbursement for Travel and Per Diem:

Reimbursement to the Grantee for any travel, lodging or meals under this Contract is at or below state rates, unless the Grantee has higher rates which have been approved by its officers/officials, and published prior to entering into contract negotiations with the Commonwealth. Documentation in support of travel and per diem is the same as required of state employees. Higher rates must be supported by a copy of the minutes or other official documents, and submitted to the Grantor.

(d) Compliance with Anti-Pollution Regulations:

The Grantee and its subcontractors agree that in the performance of their obligations under this Contract they shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

(e) Compliance with the Prohibition of Illegal Alien Labor on Assisted Projects Act.

Pursuant to the Act of May 11, 2006 (P.L. 173, No. 43), known as the Prohibition of Illegal Alien Labor on Assisted Projects Act, the Grantee shall not knowingly employ, or knowingly permit any of its subcontractors to knowingly employ, the labor services of an illegal alien on activities funded in whole or in part by a grant or loan issued by an executive agency of the Commonwealth of Pennsylvania.

If the Grantee:

- (A) knowingly employs, or knowingly permits any of its subcontractors to knowingly employ, the labor services of an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania; and
- (B) the Grantee or any of its subcontractors are sentenced under Federal law for an offense involving knowing use of labor by an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania.

the Grantee shall:

- (A) repay to the Grantor all grant funds received by the Grantee from the Grantor pursuant to this Contract, and
- (B) be ineligible to apply for any Commonwealth grant or loan for a period of two years.