

**REYNOLDS ENERGY SERVICES, INC.  
GUARANTEED ENERGY SERVICES AGREEMENT**

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This Guaranteed Energy Services Agreement (the "Agreement") is made and entered into as of this 19 day of October 2020, by and between Reynolds Energy Services, Inc. ("RES"), having its principal offices at 3300 North 3<sup>rd</sup> Street, Harrisburg, PA 17110, and Peters Township School District ("Customer") with its principal offices at 631 East McMurray Road, McMurray, PA 15317, for the purpose of the sale and installation of certain energy saving measures and equipment, described in Schedule A, and providing other services designed to save energy for the Customer's property and building at 264 E McMurray Rd, McMurray, PA 15317, known as (the "Premises").

**RECITALS**

WHEREAS, Customer owns and operates the Premises, and is in need of energy saving measures and equipment and service designed to save energy and associated energy costs at said Premises; and

WHEREAS, Customer solicited proposals from qualified firms through the issuance of a request for qualifications ("RFQ") set forth in Appendix A; and

WHEREAS, RES submitted a proposal dated December 20, 2020 (the "Proposal") in response to the RFQ, with revisions as reflected in the attached schedules; and

WHEREAS, RES has made an assessment of the energy consumption characteristics of the Premises and existing Equipment described in Schedule E, which Customer has approved; and

WHEREAS, Customer desires to retain RES to procure, install, implement, maintain and monitor such energy efficiency measures ("EEMs") of the type or class described in Schedule A, attached hereto and made part hereof and to provide other services for the purpose of achieving energy cost reductions within Premises, as more fully set forth herein; and

WHEREAS, Customer desires to compensate RES for its services based upon the value of energy, operational, and capital savings that are obtained; and

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound hereby, Customer and RES hereto covenant and agree as follows:

**SECTION 1 - ENERGY MANAGEMENT PLAN**

**Schedules, Exhibits and Appendices** - RES has prepared, based on information provided to RES, and Customer has approved and accepted the Schedules as set forth below, copies of which are attached hereto (or will be as provided for in the Agreement), and made a part of this Agreement by reference.

Schedules

Schedule A	Scope of Work
Schedule B	Project Costs and Cash Flow Analysis
Schedule C	Guaranteed Energy Savings
Schedule D	Compensation to RES
Schedule E	Baseline Energy Consumption
Schedule F	Measurement and Verification Methodologies
Schedule G	Construction and Installation Schedule
Schedule H	Start-Up and Commissioning
Schedule I	Standards of Comfort
Schedule J	Maintenance Responsibilities

Exhibits

Exhibit I	Performance Bond/Construction Bond for Construction
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Exhibit II	Certificate of Acceptance—Installed Equipment
Exhibit III	Certificates of Insurance (Referenced in Agreement)

## **SECTION 2 - ENERGY USAGE RECORDS AND DATA**

Customer has furnished or shall furnish (or cause its energy suppliers to furnish) to RES, all of its available records and data concerning energy usage and energy-related maintenance for the Premises, including the following data for the most current twelve (12) month period; utility records; occupancy information; descriptions of any changes in the building structure or its heating, cooling, lighting or other systems or energy requirements; descriptions of all energy consuming or saving equipment used in the Premises; bills and records relating to maintenance of energy-related equipment, and a description of energy management procedures presently utilized. If requested, Customer shall also provide any prior energy audits of the Premises, and copies of Customer's financial statements and records related to energy usage and operations for said twelve (12) month period at said Premises, and shall make agents and employees familiar with such records available for consultations and discussions with RES.

## **SECTION 3 - COMMENCEMENT DATE AND TERMS; INTERIM PERIOD**

- 3.1 Commencement Date** - The Commencement Date of the savings guarantee period shall be the first day of the month following the month in which the later of the following occurs: (i) RES has installed and commenced operating all of the Equipment specified in Schedule A and in accordance with the provisions of Section 6 and Schedule H; and (ii) Customer has provided RES with a signed Certificate of Acceptance – Installed Equipment as specified in Exhibit II.
- 3.2 Term of Agreement; Interim Period** - Subject to the following sentence, the term of the Savings Guarantee Agreement shall be twenty (20) years measured beginning with the Commencement Date. Nonetheless, the Agreement shall be effective and binding upon the parties immediately upon the "Effective Date." The Effective Date is the date this Agreement is sent to RES after it has been fully executed by Customer and RES. The period between the Effective Date and the Commencement Date shall be known as the "Interim Period". All energy savings achieved during the Interim Period will be fully credited to Customer.

## **SECTION 4 - PAYMENTS TO RES**

- 4.1 Energy Savings Guarantee** - RES has formulated and, subject to the adjustments provided for in Section 15, has guaranteed the annual level of energy, operations and avoided capital cost savings to be achieved as a result of the installation and operation of the Equipment and other energy saving measures provided for in this Agreement ("Energy Savings Guarantee"). The Energy Savings Guarantee is set forth in annual increments for the term of the Agreement as specified in Schedule C and has been structured by RES so as to be sufficient to cover any and all annual payments required to be made by the Customer as set forth in Schedule D.
- 4.2 Annual Review and Reimbursement/Reconciliation** - If at the end of any year during the guarantee period as specified in Schedule C, RES has failed to achieve the annual Energy Savings Guarantee specified in Schedule C, upon written request by the Customer, which shall be given no earlier than the end of such year and no later than six (6) months thereafter, RES will pay the Customer the difference between the annual amount guaranteed and the amount of actual energy and operations savings achieved at the Premises in accordance with the provisions of Schedule C. RES shall remit such payments to the Customer within sixty (60) days of written notice by the Customer of such monies due.
- 4.3 RES Compensation and Fees** – RES compensation shall be as described in Schedule D. RES has structured the Energy Savings Guarantee referred to in Section 4.1 above, so as to be sufficient to include any and all annual payments required to be made by the Customer in connection with financing/purchasing the Equipment to be installed by RES under this Agreement. Actual energy, operational savings and avoided capital cost savings achieved by RES through the replacement and operation of Equipment and other energy saving measures by RES shall also be sufficient to cover any and all annual fees to be paid by Customer to RES for the provision of services as set forth and in accordance with the provisions of Schedule B.

#### **4.4 Progress Payments**

(i) See Schedule D

**4.4.1** Applications for Payment shall be based upon RES's most recent Schedule of Values, as approved by Customer, and shall show the percentage of completion of each portion of Work as of the end of the period covered by the Application for Payment. RES shall keep all financial and job cost information and all other information related to its Applications for Payment, for a period of six (6) years following final completion of Work. Upon written reasonable notice, Customer may inspect and copy any and all such records, and audit or study the same. Payments shall be due (30) days after receipt of invoice by Customer, except for amounts disputed in good faith as to which the Customer has given prompt written notice of the amount disputed and the basis for the dispute.

**4.5 Interest Payments** – Payments due to RES under Agreement which are not paid when due (except for amounts disputed in good faith by Customer as noted in Section 4.4.1 of this Agreement) shall bear interest from the date due at six percent (6%) per annum.

### **SECTION 5 - CONSTRUCTION SCHEDULE AND EQUIPMENT INSTALLATION; APPROVAL**

**5.1** RES shall be fully responsible for the construction and the professional and technical accuracy of all services performed, whether by RES or its subcontractors or others on its behalf, throughout the term of this Agreement.

**5.2** RES shall provide overall coordination, management, and responsibility, and shall assure that all Work is completed in a good and workmanlike manner. RES's services shall include the following:

(i) Engineering Design: A survey of the Premises for purposes of designing the program for the EEMs.

(ii) Procurement, Installation, Start-Up: RES will act as a turn-key general contractor assuming total responsibility for the procurement of labor and material for installation and start-up of the Equipment, including, but not limited to, selecting subcontractors in concert with Customer (a list of subcontractors for major work items is set forth in Schedule A); awarding subcontracts; receiving and evaluating submitted drawings on the Equipment; progress inspections during installation; developing and presenting subcontractor punch lists after each inspection; receiving and evaluating record drawings; and operation and maintenance manuals from subcontractors; providing for training of Customer personnel on proper operation of the newly installed Equipment; and final inspection and recommendation for approval to the Customer for acceptance of the Equipment. Notwithstanding the foregoing, the Customer will have the sole right to make the final decision as to acceptance of Equipment and issuance of the Certificate of Acceptance for the Work.

**5.3** Construction and Equipment installation shall proceed in accordance with the construction schedule approved by Customer and attached hereto as Schedule G. RES and its subcontractors and/or agents shall not deviate from the construction schedule attached hereto as Schedule G without the Customer's prior written approval.

**5.4 Systems Startup and Equipment Commissioning** - RES shall conduct a thorough and systematic performance test of each element and total system of the installed Equipment in accordance with the procedures specified in Schedule H and prior to acceptance by Customer. RES shall provide notice to the Customer of the scheduled test(s) and the Customer and/or its designees shall have the right to be present at any or all such tests conducted by RES and/or manufacturers of the Equipment. RES shall be responsible for correcting and/or adjusting all deficiencies in systems and Equipment operations that may be observed by RES, Customer or Customer's designee during system commissioning procedures.

**5.5 Statutory Requirements** - In the installation of the Equipment, RES shall be required, and shall require its contractors and subcontractors to comply with the statutory requirements as found in the RFQ and all other statutory requirements that are applicable to the Work. RES must submit the technical scope of work to the authority having jurisdiction ("AHJ") for plans review and inspections subject to the requirements of the AHJ and provisions of the Uniform Construction Code to the extent they are applicable to the scope of work on the project. RES shall be responsible, at its sole cost, for making any adjustments requested by the AHJ to the extent that such adjustments are approved by the Customer.

## **SECTION 6 - WARRANTIES**

- 6.1** **General** - Should any item of Equipment be found to be defective within one (1) year from the Commencement Date, RES agrees to repair such item or, if necessary, furnish and install, without charge, similar items to replace it; provided, however, that the original item is returned to RES. All shipping and transportation costs involved in the repair or replacement of the defective Equipment shall be paid by RES.

On all systems installed pursuant to this Agreement, RES shall provide, at no charge during the warranty period, any labor required to repair or replace defective Equipment or parts. Such labor shall include adjustment of controls, air balancing, and correction of mechanical difficulties if such adjustments are due to defective Equipment or improper installation.

If the Equipment fails to fulfill the Energy Savings Guarantee, RES shall have the opportunity to make such changes as it deems necessary to fulfill such Energy Savings Guarantee; provided, however, RES shall obtain the Customer's prior written approval before making any such changes. If a demonstration is required, RES shall be given a reasonable opportunity to test the Equipment under requisite conditions.

The warranty provisions under this Section 6.1 are in addition to and not in lieu of any warranties made by equipment or component manufacturers. After installation of all EEMs, RES shall deliver to the Customer all manufacturer warranty certificates, documents, operation and maintenance instructions and manuals, and similar documents.

It is understood and agreed that RES shall provide performance and payment bonds covering only the construction work to be performed hereunder in the format requested by the Customer, in its discretion. The exact bond amount is \$14,530,027.00. Such bonds shall not be construed to cover any manufacturer warranties or the Guaranteed Energy Savings.

- 6.2** **Equipment Warranties** - RES covenants and agrees that all Equipment installed as part of this Agreement is new, in good and proper working condition and subject to manufacturer written warranties covering all parts and Equipment. RES further agrees to: (i) deliver to the Customer for inspection and approval, all such written warranties, which shall be attached and set forth in Schedule J, (ii) to pursue rights and remedies against manufacturer of the Equipment under the warranties in the event of Equipment malfunction or improper or defective function, and defects in parts, workmanship and performance, (iii) to notify the Customer whenever defects in Equipment parts or performance occur which give rise to such rights and remedies.

All warranties shall be transferable and extend to the Customer. The warranties shall specify that only new, and not reconditioned parts, may be used and installed when repair is necessitated by malfunction.

All warranties required hereunder shall be in force for a minimum of one (1) year from the Commencement Date as defined in Section 3.1 hereof.

- 6.3** **EXCEPT FOR THE WARRANTIES SET FORTH IN THIS SECTION 6 AND THE ENERGY SAVINGS GUARANTEE, RES DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR WARRANTY ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.**

## **SECTION 7 - TRAINING BY RES**

RES shall conduct the training program described in Schedule H hereto. The training specified in Schedule H must be completed prior to the Customer's issuance of the Certificate of Acceptance. RES shall provide ongoing training whenever needed with respect to updated or altered Equipment, including upgraded software. Such training shall be provided at no additional charge to the Customer.

## **SECTION 8 - PERMITS AND APPROVALS; COORDINATION**

- 8.1 Permits and Approvals** –Peters Township building permits are not anticipated for this project. The RES shall be responsible for obtaining all necessary permits and approvals related to the work of this contract for installation of the Equipment and shall pay any and all permit fees. Customer shall be responsible for obtaining any necessary building permits and any permits not directly related to the work of this contract. Customer shall use reasonable efforts to assist RES in obtaining all necessary permits and approvals for installation of the Equipment. The Equipment and the operation of the Equipment by RES shall at all times conform to all federal, state and local code requirements in effect at the time of the Commencement Date. RES shall furnish copies of each permit or license which is required to perform the work to the Customer before RES commences the portion of the work requiring such permit or license.
- 8.2 Coordination During Installation** - The Customer and RES shall coordinate the activities of RES's Equipment installers with the Customer. RES shall not commit or permit any act which will interfere with the performance of business activities conducted by the Customer or its employees without prior written approval of the Customer.

## **SECTION 9 - PERFORMANCE BY RES**

- 9.1** RES shall perform all tasks/phases under the Agreement, including construction, and installation of the Equipment in such a manner so as not to harm the structural integrity of the Premises or their operating systems and so as to conform to the standards set forth in Schedule I and the construction schedule specified in Schedule G. RES shall repair and restore to its original condition any area of damage caused by RES's performance under this Agreement.
- 9.2** RES shall remain responsible for the construction of the Work and the professional and technical accuracy of all services performed, whether by RES or its subcontractors or others on its behalf, throughout the term of this Agreement.
- 9.3** RES is responsible for general broom cleaning at its cost. At least once a week, RES shall remove from the Premises all discarded material and rubbish resulting from the work and assure that the Premises are clean and free of such materials and rubbish.

## **SECTION 10 – OWNERSHIP OF EXISTING EQUIPMENT**

Ownership of the equipment and materials presently existing at the Premises at the time of execution of this Agreement shall remain the property of the Customer even if it is replaced or its operation made unnecessary by work performed by RES pursuant to this Agreement. If applicable, RES shall advise the Customer in writing of all equipment and materials to be replaced at the Premises and the Customer shall within thirty (30) days designate in writing to RES which equipment and materials that should not be disposed of off-site by RES. It is understood and agreed to by both parties that the Customer shall be responsible for and designate the location and storage for any equipment and materials that should not be disposed of off-site. RES shall be responsible, at its sole cost, for the disposal of all equipment and materials, including any hazardous waste materials (except asbestos and lead containing materials as noted below). Customer shall be responsible for the removal and disposal of all asbestos and lead containing materials.

## **SECTION 11 - LOCATION AND ACCESS**

Customer shall provide sufficient rent-free space on the Premises for the installation and operation of the Equipment and shall take reasonable steps to protect such Equipment from harm, theft and misuse. Customer shall provide access to the Premises for RES to perform any function related to this Agreement during regular business hours, or such other reasonable hours as may be requested by RES and acceptable to the Customer. RES's access to Premises to make emergency repairs or corrections as it may determine are needed shall not be unreasonably restricted by the Customer.

## **SECTION 12 - EQUIPMENT SERVICE**

- 12.1 Actions by RES** - RES shall provide all service, repairs, and adjustments during the warranty period to the Equipment installed under terms of this Agreement pursuant to Schedule J. Customer shall incur no cost for Equipment service, repairs, and adjustments, except as set forth in Schedule J where applicable, provided, however, that when the need for maintenance or repairs principally arises due to the negligence or willful misconduct of the Customer, its employees, agents and those for which they are responsible, RES may charge Customer for the actual cost of the maintenance or repair insofar as such cost is not covered by any warranty or insurance proceeds.

**12.2 Malfunctions and Emergencies** - Customer shall use its best efforts to notify RES or its designee(s) within five (5) business days after the Customer's actual knowledge and occurrence of: (i) any malfunction in the operation of the Equipment or any preexisting energy related equipment that materially impacts upon the guaranteed energy savings, (ii) any interruption or alteration to the energy supply to the Premises, or (iii) any alteration or modification to the Equipment or in any energy-related equipment.

Where Customer exercises due diligence in attempting to assess the existence of a malfunction, interruption, or alteration it shall be deemed not at fault in failing to correctly identify such conditions as having a material impact upon the guaranteed energy savings. Customer shall notify RES within five (5) business days of its having actual knowledge of any equipment malfunction or other emergency condition affecting the Equipment. RES shall respond or cause its designee(s) to respond as expeditiously as possible and as warranted under the circumstances but, in no event, more than forty-eight (48) hours of notice by Customer, and shall promptly proceed with corrective measures. Any telephonic notice of such conditions by Customer shall be followed within two (2) business days by written notice to RES from Customer. If Customer unreasonably delays in so notifying RES of a malfunction or emergency, and the malfunction or emergency is not otherwise corrected or remedied, such conditions will be treated as a Material Change and the applicable provisions of Section 15 shall be applied.

**12.3 Actions by Customer** - Customer shall not unreasonably move, remove, modify, alter, adjust, or change in any way the Equipment or any part thereof without the prior written approval of RES except as set forth in Schedule J. Notwithstanding the foregoing, Customer may take reasonable steps to protect the Equipment if, due to an emergency, it is not possible or reasonable to notify RES before taking any such actions. In the event of such an emergency, Customer shall take reasonable steps to protect the Equipment from damage or injury and shall follow instructions for emergency action provided in advance by RES. Customer agrees to maintain the Premises in good repair and to protect and preserve all portions thereof which may in any way affect the operation or maintenance of the Equipment.

### **SECTION 13 - UPGRADING OR ALTERING THE EQUIPMENT**

RES shall at all times have the right, subject to Customer's prior written approval, which approval shall not be unreasonably withheld, to change the Equipment, revise any procedures for the operation of the Equipment or implement other energy saving actions in the Premises, provided that:

- (i) RES complies with the standards of comfort and services set forth in Schedule I herein;
- (ii) such modifications or additions to, or replacement of the Equipment, and any operational changes, or new procedures are necessary to enable RES to achieve the energy savings at the Premises; and
- (iii) any cost incurred relative to such modifications, additions or replacement of the Equipment, or operational changes or new procedures shall be the sole responsibility of RES.

All modifications, additions or replacements of the Equipment or revisions to operating or other procedures shall be described in a supplemental Schedule(s) to be provided to the Customer for approval, which shall not be unreasonably withheld, provided that any replacement of the Equipment shall be new and have equal or better potential to reduce energy consumption at the Premises than the Equipment being replaced. RES shall update any and all software to be used in connection with the Equipment in accordance with the provisions of Section 12. All replacements of and alterations or additions to the Equipment shall become part of the Equipment described in Schedule A and shall be covered by the provisions and terms of Section 6.

### **SECTION 14 - STANDARDS OF COMFORT**

RES shall not require the Customer to maintain and operate the Equipment in a manner which will result in compromising the accepted standards of heating, cooling, hot water, and lighting as described in Schedule I, during occupied hours of operation.

### **SECTION 15 - MATERIAL CHANGES**

**15.1 Material Change Defined** - A Material Change shall include any change in or to the Premises, whether structural, operational or otherwise in nature which reasonably could be expected, as mutually agreed upon by RES and Customer

or Customer's designee, to increase or decrease annual energy consumption in accordance with the provisions and procedures set forth in Schedule E and Schedule F by at least five percent (5%) after adjustments for climatic variations. Actions by the Customer that shall result in a Material Change include, but are not limited to, the following:

- (i) change in manner of use of the Premises by the Customer; or
- (ii) change in hours of operation for the Premises or for any equipment or energy using systems operating at the Premises; or
- (iii) permanent changes in the comfort and service parameters set forth in Schedule I; or
- (iv) change in occupancy of the Premises; or
- (v) change in structure of the Premises; or
- (vi) change in types and quantities of equipment used at the Premises; or
- (vii) modification, renovation or construction at the Premises; or
- (viii) the Customer's failure to provide maintenance of and repairs to the Equipment in accordance with Schedule J; or
- (ix) any other material conditions other than climate affecting energy use at the Premises.

**15.2 Reported Material Changes; Notice by Customer** - The Customer shall use its best efforts to deliver to RES a written notice describing all actual or proposed Material Changes in the Premises or in the operations of the Premises at least fifteen (15) days before any actual or proposed Material Change is implemented or as soon as is practicable after an emergency or other unplanned event, or finding a material change. Notice to RES of Material Changes which result because of a bona fide emergency or other situation which precludes advance notification shall be deemed sufficient if given by the Customer within five (5) business days after having actual knowledge that the event constituting the Material Change occurred or was discovered by the Customer to have occurred.

**15.3 Unreported Material Change** - In the absence of any Material Changes in the Premises or in their operations, the baseline energy consumption as set forth in Schedule E should not change more than ten percent (10%) during any month from the projected energy usage for that month, after adjustments for changes in climatic conditions. Therefore, if energy consumption for any month as set forth in Schedule E deviates by more than ten percent (10%) the energy consumption for the same month of the preceding contract year after adjustments for changes to climatic conditions, then such deviation shall be timely reviewed by RES to ascertain the cause of deviation. RES shall report its findings to the Customer in a timely manner and RES and Customer shall determine what, if any, adjustments to the baseline will be made in accordance with the provisions set forth in Schedule F.

## **SECTION 16 - PROPERTY/CASUALTY/INSURANCE; INDEMNIFICATION**

### **16.1 RES's Liability Insurance**

**16.1.1** To the fullest extent permitted by law, RES shall indemnify, defend and hold Customer, the Board of School Directors of Customer, and their officers, employees, agents and representatives (collectively, the "Indemnified Parties") harmless from and against any and all claims, damages, losses, costs, judgments or injuries including, but not limited to, reasonable legal fees and expenses (collectively, the "Damages") arising out of the work to be performed by RES, its subcontractors, agents or anyone for whose acts or omissions they may be legally liable (the "RES Team"). Such obligations of RES to indemnify, defend and hold harmless the Indemnified Parties to the extent of the RES Team's fault (i.e., proportionality), shall apply even if the Damages are caused in part by the Indemnified Parties. Notwithstanding anything to the contrary, in no event shall RES be responsible for indemnifying the Indemnified Parties for Customer's own sole negligence.

In addition, RES shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect RES from claims set forth below which may arise out of or result from RES's operations under this Agreement and for which RES may be legally liable.

- .1 claims under worker's compensation, disability benefit and other similar employee benefit acts which are applicable to the operations to be performed;
- .2 claims for damages because of bodily injury, occupational sickness or disease, or death of RES's employees;
- .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than RES's employees;
- .4 claims for damages insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by RES, or (2) by another person;
- .5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
- .6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle.

**16.1.2** The insurance required by Section 16.1.1.1 through 16.1.1.6 shall be written for not less than limits of liability specified in Article 16.1.3, or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the Effective Date until date of final payment and termination of any coverage required to be maintained after the Commencement Date.

**16.1.3** Limits on Insurance - The insurance required by Article 16 shall be written for not less than the following limits, or greater if required by law:

Commercial General Liability	\$ 2,000,000
- General Aggregate	\$ 2,000,000
- Products-Completed Operations Aggregate	\$ 1,000,000
- Personal & Advertising Injury	\$ 1,000,000
- Each Occurrence	\$ 1,000,000
- Damage to Rented Premises (each occurrence)	\$ 1,000,000
- Medical Expense	\$ 10,000
 Automobile Liability – Combined Single Limit	 \$ 1,000,000
 Excess Liability – Other Than Umbrella	
- Each Occurrence	\$10,000,000
- Aggregate	\$10,000,000
 Worker's Compensation Liability	
- Each Accident	\$ 500,000
- Disease – Policy Limit	\$ 500,000
- Disease – Each Employee	\$ 500,000
 Professional Liability	
- Per Claim	\$ 2,000,000
- Aggregate	\$ 4,000,000

With respect to any of the insurance policies provided by RES pursuant to this Agreement which are "claims made" policies, in the event that such policies are cancelled or not renewed at any time, RES shall provide substitute insurance policy with an inception date the same as the prior policy's cancellation date and to have the substitute insurance policy carry forward the same retroactive date as the cancelled policy to fill any gaps in coverage which may exist due to the cancellation or non-renewal of the prior "claims made" policies. With respect to all "claims made" policies which are renewed, RES shall provide coverage retroactive to the date of commencement of Work under this Agreement. All said substitute or renewed "claims made" policies shall be maintained in full force and effect for three (3) years from the date of final completion of the Work. The insurance policies shall incorporate a provision requiring

written notice to the Customer at least thirty (30) days prior to any cancellation, non-renewal or material modification of the policies.

### **SECTION 17 - RISK OF LOSS**

Upon RES's completion of the Work and Customer's acceptance of the Equipment, as evidenced by Customer's issuance of the Certificate of Acceptance, the Customer assumes all risk of loss of or damage to the Equipment from any cause whatsoever (except as provided in Section 12), and no such loss of or damage to the Equipment shall relieve the Customer of the obligation to make payments or to perform any other obligation under this Agreement. In the event of damage to any item of Equipment, the Customer will immediately notify RES or its assignee and place the same in good repair except as provided in Section 12. If Customer determines that any of the Equipment is lost, stolen, destroyed, or damaged beyond repair and RES, its subcontractors and/or agents are not responsible for repair or replacement, the Energy Savings Guarantee will be adjusted by mutual agreement to account for the losses associated with the Equipment and Customer will either: (a) replace the same with like Equipment in good repair, or (b) accept the Energy Savings Guarantee adjustment for the remaining term of the contract.

### **SECTION 18 - CASUALTY OR CONDEMNATION OF PREMISES**

Any construction or restoration of the Premises following or necessitated by fire, flood, or other casualty, or any condemnation affecting any portion of the Premises, shall be deemed a Material Change, and the provisions of Section 15 shall be applicable. If the casualty or condemnation renders fifty percent (50%) or more of the Premises uninhabitable or unusable and, in the case of a casualty, the affected portion is not reconstructed or restored within one hundred and twenty (120) days from the date of such casualty, Customer shall have the option to terminate this Agreement by a notice to RES. In the event of condemnation, Customer agrees that RES shall be entitled to receive payment for the value of all costs to date including engineering, labor, material, restocking and/or cancellation fees, project demobilization and reasonable overhead and profit on work properly performed by RES prior to the event of condemnation. Upon such termination, RES may remove the Equipment from the condemned portion of the Premises.

### **SECTION 19 - CONDITIONS BEYOND CONTROL OF THE PARTIES**

If a party ("performing party") shall be unable to reasonably perform any of its obligations under this Agreement due to acts of God, insurrections or riots, or similar events, this Agreement shall at the other party's option (i) remain in effect but said performing party's obligations shall be suspended until the said events shall have ended; or, (ii) be terminated upon ten (10) days notice to the performing party, in which event neither party shall have any further liability to the other. Upon such termination, RES shall recover as its sole remedy payment for Work properly performed in connection with the terminated portion of the Work and for items properly and timely fabricated off the project site, delivered and stored in accordance with the Customer's instructions and provide, actual costs associated with termination of subcontracts.

### **SECTION 20 - TERMINATION FOR CONVENIENCE**

The Customer shall have the right to terminate this Agreement if, in any fiscal year during the term of this Agreement, the Customer does not receive sufficient funds or financing for the Work contemplated under this Agreement. In the event of termination pursuant to this Section 20, Customer agrees that RES shall be entitled to receive as its sole remedy payment for Work properly performed prior to termination of this Agreement and for items properly and timely fabricated off the project site, delivered and stored in accordance with Customer's instructions and actual costs associated with termination of subcontracts.

### **SECTION 21 - EVENTS OF DEFAULT**

**21.1 Events of Default by Customer** - Each of the following events or conditions shall constitute an "Event of Default" by Customer:

- (i) Any failure by Customer to pay RES any uncontested sum due for a service and maintenance period of more than thirty (30) days after written notification by RES that Customer is delinquent in making payment; or
- (ii) Any other material failure by Customer to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein, provided that such failure continues for thirty (30) days after notice to Customer demanding that such failures to perform be cured or if such cure cannot

be effected in thirty (30) days, Customer shall be deemed to have cured default upon the commencement of a cure within thirty (30) days and diligent subsequent completion thereof; or

- (iii) Any representation or warranty furnished by Customer in this Agreement which was knowingly false or misleading in any material respect when made. Upon such termination, RES shall recover as its sole remedy payment for Work properly performed and documented in connection with the terminated portion of the Work and for items properly and timely fabricated and documented off the project site, delivered and stored in accordance with the Customer's instructions and shall provide actual costs associated with termination of subcontracts caused by Customer's breach.

**21.2 Events of Default by RES** - Each of the following events or conditions shall constitute an "Event of Default" by RES:

- (i) The standards of comfort and service set forth in Schedule I are not provided due to failure of RES to properly design, install, maintain, repair or adjust the Equipment except that such failure, if corrected or cured within thirty (30) days after written notice by Customer to RES demanding that such failure be cured, shall be deemed cured for purposes of this Agreement, unless customer incurs damages in the intervening period.
- (ii) Any representation or warranty furnished by RES in this Agreement is false or misleading in any material respect when made;
- (iii) Any other material failure by RES to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein, provided that such failure continues for thirty (30) days after written notice to RES demanding that such failure to perform be cured, if corrected or cured within thirty (30) days after RES's receipt of such written notice shall be deemed cured for the purpose of this Agreement, unless customer incurs damages in the intervening period for which RES will be responsible.
- (iv) Any lien or encumbrance upon the Equipment by RES, any subcontractor, laborer or materialman of RES;
- (v) The filing of a bankruptcy petition whether by RES or its creditors against RES which proceeding shall not have been dismissed within thirty (30) days of its filing, or an involuntary assignment for the benefit of all creditors or the liquidation of RES;
- (vi) Failure by RES to pay any amount due the Customer or perform any obligation under the terms of this Agreement or the Energy Savings Guarantee as set forth in Schedule C after thirty (30) day written notice from the Customer; or
- (vii) Repossession or removal of the Equipment by RES or a third party without good cause.

**SECTION 22 - REMEDIES UPON DEFAULT**

**22.1 Remedies upon Default by Customer** - If an Event of Default by Customer occurs, RES may, without a waiver of other remedies which exist in law or equity:

- (i) Exercise any and all remedies available at law or in equity or other appropriate proceedings including bringing an action or actions from time to time for recovery of amounts due and unpaid by Customer, and/or for damages.

**22.2 Remedies Upon Default by RES** - In the Event of Default by RES, Customer shall have the choice of one or more of the following remedies without waiving any other rights or remedies in law or equity:

- (i) Exercise any and all remedies available at law or equity, or institute other proceedings, including, without limitation, bringing an action or actions from time to time for specific performance, and/or for the recovery of amounts due and unpaid and/or for damages;
- (ii) If the payments under this Agreement have not been assigned, Customer may set off or counterclaim against its obligation to make any of the payments provided in default; or

- (iii) RES will be liable to Customer for damages incurred by Customer as a result of any default by RES. Such damages may include, but are not limited to: (a) payments made to RES or its assignee which represents payment towards a unit of Equipment for which acceptance was revoked because of a latent defect (b) the difference in price between the market price of the Equipment which was not delivered or which was rejected (or the actual purchase price if Customer purchases replacements (like Equipment) for any undelivered or rejected unit of Equipment) and the purchase price indicated in the Agreement for such units of Equipment) (c) damages as a result of breach of warranty, failure to meet specifications, or damages incurred by Customer resulting from the delivery of Equipment which is defective or fails to meet specifications, or resulting from RES's failure to comply with any other requirements of this Agreement, and (d) any other damages recoverable by law.

### **SECTION 23 – DISPUTE RESOLUTION/MEDIATION**

- 23.1** Any Claim arising out of or related to the Agreement, shall be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by either party.
- 23.2** The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to the Agreement and with the American Arbitration Association. Mediation shall proceed in advance of legal or equitable proceedings, which shall be stayed pending mediation for a period of sixty (60) days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.
- 23.3** Claims, disputes or other matters in question between the parties to this Agreement arising out of or relating to this Agreement or breach thereof that are not resolved through mediation shall be subject to and decided in the Dauphin County Court of Common Pleas, 12th Judicial District of Pennsylvania.

### **SECTION 24 - ASSIGNMENT**

RES acknowledges that Customer is induced to enter into this Agreement by, among other things, the professional qualifications of RES. RES agrees that neither this Agreement nor any right or obligations hereunder may be assigned in whole or in part to another firm, without the prior written approval of the Customer.

### **SECTION 25 - REPRESENTATIONS AND WARRANTIES**

- 25.1** Each party warrants and represents to the other that:
  - (i) It has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Agreement and perform its obligations hereunder;
  - (ii) Its execution, delivery, and performance of this Agreement have been duly authorized by, and this Agreement has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;
  - (iii) Its execution, delivery, and performance of this Agreement will not breach or violate, or constitute a default under any contract, lease or instrument to which it is a party or by which it or its properties may be bound or affected; and
  - (iv) It has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

## **SECTION 26 - ADDITIONAL REPRESENTATIONS OF THE PARTIES.**

**26.1** Customer hereby warrants, represents and promises that:

- (i) It has provided or will use reasonable efforts to provide timely to RES, all reasonably available records relating to energy usage and energy-related maintenance of Premises requested by RES; and
- (ii) It has not entered into any leases or contracts with other persons or entities regarding the leasing of energy efficiency equipment or the provision of energy management services for the Premises or with regard to servicing any of the energy related equipment located in the Premises. Customer shall provide RES with copies of any successor or additional leases of energy efficiency equipment and contracts for management or servicing of preexisting equipment at Premises which may be executed from time to time hereafter within thirty (30) days after execution thereof.

**26.2** RES hereby warrants, represents and promises that:

- (i) Before commencing performance of this Agreement:
  - (a) It is or shall become licensed or otherwise permitted to do business in the Commonwealth of Pennsylvania;
  - (b) It shall have provided proof and documentation of required insurance pursuant to Section 16. It shall make available, upon reasonable request, all documents relating to its performance under this Agreement, including all contracts and subcontracts entered into;
- (ii) That it is financially solvent, able to pay its debts as they mature and possessed of sufficient working capital to complete the Work and perform its obligations under this Agreement.

## **SECTION 27 - COMPLIANCE WITH LAW AND STANDARD PRACTICES**

RES shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, and in compliance with any and all reasonable rules of Customer relative to the Premises.

## **SECTION 28 - INDEPENDENT CAPACITY OF THE CONTRACTOR**

The parties hereto agree that RES, and any agents and employees of RES, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the Customer.

## **SECTION 29 - NO WAIVER**

The failure of RES or Customer to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of either party's right to thereafter enforce the same in accordance with this Agreement in the event of a continuing or subsequent default on the part of RES or Customer.

## **SECTION 30 - NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE**

During the term of the Agreement, RES shall comply with applicable laws, regulations and special requirements of the Contract Documents regarding equal employment opportunity and affirmative action programs.

## **SECTION 31 - SEVERABILITY**

In the event that any clause or provision of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or unconscionable.

**SECTION 32 - COMPLETE CONTRACT**

This Agreement, when executed, together with all Exhibits and all Schedules attached hereto or to be attached hereto, as provided for by this Agreement shall constitute the entire contract between both parties and this Agreement may not be amended, modified, or terminated except by a written contract signed by the parties hereto.

**SECTION 33 - ORDER OF PRECEDENCE**

If any conflicts or discrepancies should arise in the terms and conditions of this Agreement or the interpretation thereof, the language of the Agreement shall prevail, followed by RES's proposal and then the RFQ.

**SECTION 34 - PRESERVATION OF RECORDS**

RES shall maintain and preserve for a period extending until six (6) years after date of final payment to RES and during that period shall produce, upon request of Customer, all data, records, and other evidence pertaining to costs incurred by RES in connection with this Agreement for the purpose of an audit or other examination.

**SECTION 35 - DOCUMENTS**

The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.

**SECTION 36 - APPLICABLE LAW**

This Agreement and the construction and enforceability thereof shall be interpreted under the laws of the Commonwealth of Pennsylvania without application of its choice of law provision.

**SECTION 37 - ENVIRONMENTAL PROVISIONS**

In the performance of this Agreement, RES shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

**SECTION 38 - NOTICE**

Any notice required or permitted hereunder shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, or delivered to a nationally recognized express mail service, charges prepaid, receipt obtained, to the address shown below or to such other persons or addresses as are specified by similar notice.

TO RES:	<i>Reynolds Energy Services, Inc. Attention: Richard Evans 3300 North 3<sup>rd</sup> Street Harrisburg, PA 17110</i>	<i>Copy To:</i>	<i>McNees Wallace &amp; Nurick Attention: Diane Tokarsky 100 Pine Street Harrisburg, PA 17108</i>
TO CUSTOMER:	<i>Peters Township School District Attention: Brad Rau, Business Manager 631 East McMurray Road</i>	<i>Copy To:</i>	<i>Weiss, Burkardt, Kramer, LLC Attention: Jocelyn P. Kramer 445 Fort Pitt Boulevard, Suite 503 McMurray, PA 15317</i>

**SECTION 39 - CUSTOMER'S COMPLIANCE WITH FACILITIES MAINTENANCE CHECKLIST**

**39.1** The parties acknowledge and agree that RES has entered into this Agreement in reliance upon the prospect of earning compensation based on guaranteed energy savings in energy used at Premises, as set forth on Schedules C and D, attached hereto and made a part hereof.

- 39.2 The parties further acknowledge and agree that the said guaranteed energy savings would not likely be obtained unless certain procedures and methods of operation designed for energy conservation shall be implemented, and followed by Customer on a regular and continuous basis.
- 39.3 Customer agrees that it shall use reasonable efforts, adhere to, follow and implement the energy conservation procedures and methods of operation to be set forth on Schedule J, to be attached hereto and made a part hereof after Customer's approval.
- 39.4 Customer agrees that RES shall have the right once a month, with prior notice, to inspect Premises to determine if Customer is complying, and has complied with its obligations as set forth above. For the purpose of determining Customer's said compliance, the checklist to be set forth at Schedule J as completed and recorded by RES during its monthly inspections, shall be used to measure and record Customer's said compliance. Customer shall make the Premises available to RES for and during each monthly inspection, and shall have the right to witness each inspection and the recordation on the checklist.

**SECTION 40 - MISCELLANEOUS PROVISIONS**

- 40.1 (deleted)
- 40.2 Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Customer or RES.
- 40.3 With the exception of any such materials brought onto the Premises by RES or its agents, consultants, and/or subcontractors, RES and the RES's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Premises, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic substances.

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Agreement by their duly authorized officers on the date first above written.

**Peters Township School District**

\_\_\_\_\_  
 (signature)  
 Thomas McMurray, School Board President

**WITNESS:**

\_\_\_\_\_  
 (signature)  
 [Name, Title]

**REYNOLDS ENERGY SERVICES, INC.**

\_\_\_\_\_  
 Signature of President or Vice President  
  
Richard Evans  
 Name  
  
Regional General Manager – Northeast Region  
 Title

**ATTEST:**

\_\_\_\_\_  
 Signature  
  
 \_\_\_\_\_  
 Name  
  
 \_\_\_\_\_  
 Title

(Corporate Seal)

Federal Identification No. 80-0197145

# Schedule A: Scope of Work

## SCOPE OF WORK

### 1.0 ARCHITECTURAL / GENERAL CONSTRUCTION

#### 1.1 Furniture Moving:

1. The school district will move/remove all furniture, equipment, boxes, supplies, etc... except for classroom desks and chairs, teacher desks and chairs, and main office furniture. Reynolds will move above mentioned remaining furniture as required for our work. The school district will remove all teachers' belongings for each classroom including wall-mounted items. Storage rooms will be empty. The library books will be removed. The administration offices need to be empty or relocated.

#### 1.2 BCIT (Ground Floor)

1. The two former Media Center Rooms will be combined into a new BCIT room. Provide new carpet, base, painted walls, acoustical ceilings.

#### 1.3 New Media Area (Ground Floor)

1. The new Media area will be renovated and enlarged by removing four offices. Provide new carpet, base, painted walls, acoustical ceilings.

#### 1.4 New Orchestra/LGI Classroom Area (First Floor)

1. Provide a new Orchestra/LGI Classroom including two practice rooms and a storage room. Provide new carpet, base, painted walls, acoustical ceilings, and acoustical wall panels in the Orchestra/LGI Classroom and practice rooms.

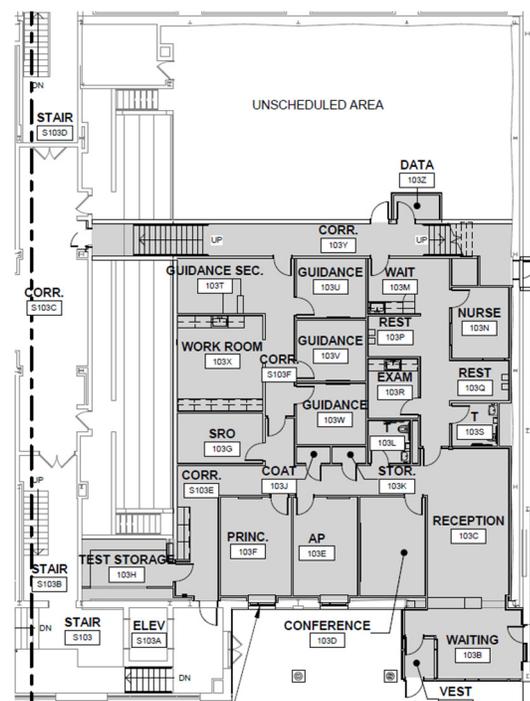
2. Provide music storage cabinets in the LGI room

#### 1.5 New Art Room (First Floor)

1. Renovate the former German Room into a new Art Room. Partitions will be removed to provide a full classroom area similar to the other Art Rooms. Provide new vinyl composite tile, base, painted walls, casework, acoustical ceilings.

#### 1.6 New Administration Area (First Floor)—see adjacent graphic

1. Remove from site the pool equipment located in the existing pool equipment room.
2. The existing pool will be infilled with Compacted sand, structural fill, Geo-Foam blocks, stone/vapor barrier and concrete slab.
3. The new office floor plan (see graphic) will include Principle, Assistant Principle, School Resource Officer, Guidance, the Nurses Suite, Reception, Waiting, Conference Room, Work Room, and Restrooms.



# Schedule A: Scope of Work

4. Provide new carpet and vinyl composite tile, base, painted walls, acoustical ceilings. The restrooms will have porcelain floor tile flooring and painted drywall ceilings.
  5. Provide new plastic laminate reception desks for Reception and Guidance Sec offices.
  6. Provide mail slots in the new admin area.
  7. Remove existing canopy and building skin outside the current Natatorium. Replace the building skin per the documents.
  8. Construct the new Waiting area and canopy roof including new column covers.
  9. Replace curb and sidewalk as required.
- 1.7 Planning Center (First Floor)
1. Convert the former English Room into a Planning Center with a private office. Provide new vinyl composite tile, base, and painted walls. The existing ceiling will remain. The private office will have new carpet, base, painted walls, and new acoustical ceilings.
- 1.8 Speech and Conference Rooms (First Floor)
1. Convert the former Nurses Suite into the Speech and Conference Rooms. Speech will have painted walls. The existing floors and ceilings will remain. Provide new carpet, base, painted walls, acoustical ceilings for the Conference Room.
- 1.9 Miscellaneous First Floor Improvements
1. At the main front entrance, replace the existing carpet tiles with new carpet tiles, replace the existing stair treads and risers including the landing.
  2. In gang toilet rooms, provide minor modifications such as relocating the existing toilet paper dispenser and installing a new vertical grab bar where ADA modifications are required.
  3. In the 1968 and 1981 stairways, replace the hand and guard rails.
  4. Replace the carpet in Reception 118.
  5. Repair the floor joint in the Band and Choral Rooms.
  6. Where new construction requires a new interior door frame, provide new hollow metal door frames. Provide new wood doors for interior doors. Provide three new aluminum door frames and doors for the new office vestibule. New doors will be provided with new hardware as indicated on the Architectural drawings.
  7. Rekey doors A10, A17, A21, A21A, A21B, A22A, A22B, A02A, A02B, A02C, A04, A04A, A04B, A05, 131, 118, 118A, 118B, 118C, 118D, 118E, 118F, 118G, 118H, 113A, 113B, 113C, 113D, 113E, 113F, S132, and S145.
- 1.10 Miscellaneous Second Floor Improvements
1. In gang bathrooms, provide minor modifications such as relocating the existing toilet paper dispenser and installing a new vertical grab bar where ADA modifications are required.
  2. In the 1968 and 1981 stairways, replace the hand and guard rails.
  3. Remove folding wall in Rooms 235 and 237 and install a fixed wall between the two classrooms.
  4. Provide chases for HVAC ductwork in various locations.
- 1.11 Windows

# Schedule A: Scope of Work

1. Remove exterior windows and abate asbestos glazing as noted on the asbestos report. The existing wood window pockets and slate sills will remain in place.
2. Replace the original windows with new, non-operable, thermally broken window frames with insulated glazing.
3. Provide new shades at new and existing window locations.
4. Interior solid surface sills will be installed at new Principle, Assistant Principle office windows.

## 1.12 Roofing

1. Roof areas O1, O3 & K: Remove existing roof membrane, wet insulation, and flashing. Wet insulation will be removed and replaced as noted on the Garland roof scan report. Replace noted wet insulation and mechanically attach new tapered insulation over existing roof insulation. Raise curbs, rails, expansion joints and perimeter blocking to provide sufficient flashing height to meet manufactures requirements. Apply a two-ply modified bituminous membrane roof system with a 30- year Garland roof warranty.
2. Area P: Provide new roofing at new canopy and vestibule addition with Garland 30 year roof system.
3. The following roof areas are also included in the project: Roof M, N2, L, F ,H, I, J, B, C & G –Roof Restoration/coating only with an 20 year Garland Warranty.

## 1.13 Painting

1. Corridor Painting: Repaint the HM door frames on the corridor side of the door frame only. Paint corridor wall heater covers. In Area C, the painting will start at seven foot off finished floor to the height of the acoustical ceiling. Areas D and E, the painting will be above the lockers and the bulkhead/soffit construction at door openings.
2. Gymnasium Ceiling: Prepare the existing metal deck and the beams and apply new paint.
3. Stairs S100, S101C, and S104B, paint door frames, stairs stringers and underside of the stairs, railings and handrails and painted block walls
4. Paint the walls of the following classrooms: 228, 230, 232, 235, and 237.

## 1.14 Signage

1. Provide new signage for all new or renovated rooms and select locations per the documents.
2. All other signage throughout the building will remain as is.

## 1.15 Ceilings

1. Remove all acoustical ceilings in corridors and fully renovated areas. Acoustical ceilings will be removed and replaced in classrooms and other areas where HVAC and Electrical work will require removal.
2. Provide new acoustical ceilings in newly constructed areas: BCIT (Ground Floor), New Media Area (Ground Floor), New Orchestra/LGI Classroom Area (First Floor), New Art Room (First Floor), New Administration Area areas (First Floor), Planning Center (First Floor), and Speech and Conference Rooms (First Floor).

# Schedule A: Scope of Work

## 2.0 MECHANICAL SYSTEMS

- 2.1 The existing boiler plant (three boilers and pumps) will remain with minor changes to control valves.
- 2.2 All five existing air-cooled chillers (grade and roof mounted) will be removed. A new central chilled water plant will serve all chilled water loads. A new 270-ton air-cooled chiller will be installed on grade where the existing on-grade chiller is currently located. Two new primary chilled water pumps serving the chiller will be installed. Two new secondary pumps serving the building will be installed. The design of the HVAC system shifts the outdoor ventilation load for classroom spaces to Dedicated Outdoor Air Systems (DOAS) with DX cooling.
- 2.3 Provide 15 new rooftop dedicated outdoor air units that will provide ventilation air to the classrooms. Each unit will have supply and exhaust fans, a heat recovery wheel, a direct-expansion cooling coil, a hot-gas reheat coil, a hot water heating coil, digital scroll compressors, condensing coil, and condensing fans. The hot water coils will have a pump that will operate when the outside air temperature is near freezing. The units will be capable of heating, cooling, and dehumidification modes of operation.
- 2.4 Replace the two existing rooftop air handling units serving the Cafeteria with new rooftop units. Replace the existing rooftop unit serving the Auditorium Lobby. Two (2) additional new packaged rooftop air handling units will be added for the new Admin Office area and LGI / Orchestra. The Admin Office HVAC system will include duct mounted variable air volume air terminal units with hot water heating coils.
- 2.5 Any exhaust fans, relief air hoods, and outside air intake hoods located on the roof that are no longer required will be removed. Where existing roof areas are remaining (no work), the roof equipment curbs will be capped with an insulated, air-tight cap. Where roof work is occurring, the roof equipment curbs will be removed, and the roof deck will be patched to prepare for the new roofing system.
- 2.6 New exhaust fans will be installed for the Science Rooms including the existing fume hoods exhaust fans. New exhaust fans will replace the existing exhaust kitchen hoods and serving lines exhaust fans. Two new make-up air units will be installed for the kitchen hoods.
- 2.7 Other than the rooftop units listed, the existing HVAC air-side equipment will remain including air handling units, classroom unit ventilators, fan coil units, cabinet unit heaters, and horizontal unit heaters. The existing units will be cleaned. Wet-end (hot and chilled water) piping at the unit will be replaced including the control valve.
- 2.8 Provide two 12-foot diameter airfoil ceiling fans in Gym 105.
- 2.9 IDF/MDF closet (DATA 103Z) will be served by new ductless split system.
- 2.10 All locker room and gym HVAC systems are existing to remain.
- 2.11 All kitchen ductwork systems including hood exhaust and dishwasher exhaust are existing to remain.

# Schedule A: Scope of Work

- 2.12 New equipment will receive new DDC controls. The boiler plant controls will be upgraded for boilers and pumps. Existing equipment will receive new DDC controls with the goal of removing all pneumatic controls in the building and having a complete DDC system.
- 2.13 Provide test, adjust and balancing (TAB) service for all air-side and water-side HVAC systems.
- 2.14 Provide initial chemical treatment for hot and chilled water systems. Chemical treatment shall adhere to HVAC equipment manufacturer specifications.

## 3.0 PLUMBING SYSTEMS

- 3.1 Remove the existing pool equipment including sand filter, chemical tanks, UV sterilizers, and piping.
- 3.2 Remove the existing water heater and tank in the boiler room. Provide two new water heaters and one storage tank. Provide a new mixing valve and two recirculating pumps.
- 3.3 Remove the existing water generator in gym mezzanine and remove the existing storage tanks. Provide two new water heaters and two storage tanks. Provide a new mixing valve and one recirculating pump.
- 3.4 Provide new plumbing fixture replacement associated with ADA compliance / upgrades for toilet rooms
- 3.5 Provide plumbing work for new fixtures in renovated spaces including the New Administration Area and conversion of German Room into Art Room.
- 3.6 Modify and extend the existing wet pipe sprinkler system in accordance with NFPA Standards 13-2016, 2015 IBC and 2015 IFC to provide complete coverage for the following work areas in this project: 103A-103Z Administration Suite, 114-114D Orchestra/LGI, 112-112C Speech/Social Worker Area, 148 Art Room, 128-128A Planning Center, and 142 Boiler Room.

## 4.0 ELECTRICAL SYSTEMS

### 4.1 Utility Service and Power Distribution

1. Existing electrical service to building will remain as is. The building is served from a utility company (West Penn Power) pad mounted transformer with a 277/480 volt, 3 phase, 4 wire secondary.
2. There are three 277/480 volt, 3 phase, 4 wire service feeders from the pad mounted service transformer that will remain as is. 1) a 1200 amp Service Disconnect MS-A: Feeds a 750 kVA, 480-208Y/120 volt transformer located in the utility courtyard outside of the mechanical room. The transformer provides power to the existing 120/208 volt, 3 phase, 4 wire main distribution equipment. 2) the 1200-amp Service Disconnect MS-1 serves the

# Schedule A: Scope of Work

feeder to main distribution panel DPA, and 3) the 1200-amp Service Disconnect MS-2 serves the feeder to main distribution panel DPH.

3. The Main 277/480 volt distribution panels DPA and DPH are rated at 277/480 volt, 3 phase, 4 wire, 1200 amps. Panels are GE Spectra Series panels installed in 2000. These panels will remain as is. The distribution panels provide power to downstream branch circuit panelboards.
  4. The main 120/208 volt distribution equipment is original to the building and will be replaced as part of the building conversion. A new main distribution switchboard including a surge protection device and electronic circuit monitor will be provided.
  5. Downstream branch circuit panelboards were replaced in 2000 and will remain.
  6. New connections will be made to existing building distribution and branch circuit panelboards as required for the electrical work as part of the building conversion project.
  7. New 277/480 volt, 3 phase, 4 wire branch circuit panelboards will be provided where required for the building alterations.
  8. New 120/208 volt, 3 phase, 4 wire branch circuit panelboards will be provided where required for the building alterations.
  9. Electrical system grounding shall be in accordance with Article 250 of the National Electrical Code. A separate insulated equipment grounding conductor will be provided in all raceways.
- 4.2 Emergency Generator and Power Distribution System
1. The existing Cummins-Onan 350 kW/437.5 kVA, 277/480 volt, 3 phase, 4 wire diesel-fired emergency/standby power generator with sound attenuated weatherproof enclosure located in the utility courtyard outside of the building will remain as is. Multiple automatic transfer switches are provided for separation of the emergency (life safety) power system and standby power system. Emergency and standby power distribution systems including automatic transfer switches and panelboards will remain as is.
  2. New connections will be made to existing emergency system and standby system panelboards as required for the electrical work as part of the building conversion project.
  3. New connections will be made to existing emergency system for electric heat trace associated with outdoor chilled water piping.
  4. Emergency power will be provided for code required emergency egress and exit lighting, exit signs and building fire alarm, security and communications systems.

# Schedule A: Scope of Work

## 4.3 Lighting

1. Renovated areas will receive new LED fixtures. Renovated areas include BCIT (Ground Floor), New Media Area (Ground Floor), New Orchestra/LGI Classroom Area (First Floor), New Art Room (First Floor), New Administration Area areas (First Floor), Planning Center Storage (First Floor) (the Planning Center lighting fixtures will be reused), and Speech and Conference Rooms (First Floor).
2. All other interior lighting (3145 fixtures) will be retrofit with direct-wire LED lamps. The existing fixtures will remain. Any fluorescent or incandescent fixtures will be retrofitted with LED lamps. Existing EXIT signs are already LED and will remain as is. Occupancy sensors (115 units) will be installed in classrooms, faculty rooms, and janitor's closets.
3. Except for fixtures that are only on the when the generator is running and are emergency fixtures, other exterior fixtures will be upgraded. Three of four existing wall pack fixture will be replaced. The fourth wall pack is already an LED wall pack unit. Area fixtures (107 fixture heads) that serve the parking lot and driveways will be upgraded to LED fixtures. The area fixtures will include an integrated occupancy sensor for bi-level lighting control.

## 4.4 Fire Alarm System

1. The existing building digital addressable fire alarm system and Gamewell-FCI E3 series fire alarm control panel shall remain. The fire alarm system is not required by the AHJ to be upgraded to current Code requirements for voice alarm notification as part of the current renovation project. The fire alarm system may be upgraded at a future date to provide voice alarm notification throughout the building.
2. New devices compatible with the existing fire alarm system will be provided as required in renovated areas. The extended system will include manual pull stations, audible and visual notification appliances, and smoke detectors where required by Code.

## 4.5 Telecommunications, Intercom, and Clock Systems

1. The existing building telecommunications system including MDF and IDF racks, CAT 5E horizontal cabling, and data outlets shall remain as is. A new IDF rack will be provided in the new Administration Area. New CAT 6 horizontal cabling and data outlets will be provided as required in renovated areas including BCIT (Ground Floor), New Media Area (Ground Floor), New Orchestra/LGI Classroom Area (First Floor), New Art Room (First Floor), New Administration Area (First Floor), Planning Center Storage (First Floor), and Speech and Conference Rooms (First Floor).
2. New plenum rated 12-strand multi-mode fiber optic backbone cable shall be provided from the primary MDF rack to each IDF rack. Fiber optic cables shall be installed in plenum rated innerduct.

# Schedule A: Scope of Work

3. Provide new data outlets where required in renovated areas. Provide CAT 6 cable from data outlets to nearest IDF or MDF rack.
4. Two CAT 6A plenum rated cables will be provided from MDF and IDF racks to wireless access point locations to provide wireless coverage throughout the building. Each cable will terminate in a female RJ-45 jack at each wireless access point location. The District will provide and install all wireless access points.
5. The existing phone/intercom and master clock system for the building shall remain. The existing Telecor head end equipment will be replaced with a Rauland system relocated from the existing Middle School. Reynolds will provide new expansion modules for the head end equipment and provide programming and start-up for the renovated system. Provide new plenum rated cabling from the head end equipment to new clock and speaker locations in renovated areas. The District will provide any additional clocks and speakers compatible with the relocated head end equipment. All existing building auxiliary sound systems shall remain as is such as the sound systems in the Auditorium, TV studio, Gym.

## 4.6 Security System

1. The existing building security system will remain. Existing security cameras will be relocated where required in renovated areas.
2. Any new security cameras will be provided by the School District. Reynolds will provide plenum rated cabling from security cameras to head end equipment.
3. Reynolds will provide new card readers in renovated areas to limit access to rooms. Plenum rated control wiring will be provided from card readers to head end equipment.
4. A video intercom station will be provided at the entrance to the secure vestibule at the new Administrative Office area. A card reader will be provided at the main entrance for staff entry.

## 5.0 CLARIFICATIONS

- 5.1 Any work in the locker room area is excluded.
- 5.2 Any architectural work in the work in the auxiliary gym, kitchen, cafeteria, auditorium or stage is excluded.
- 5.3 Any work in the adjacent parking lots is excluded.
- 5.4 Windows installed during the 2000 construction project is excluded.
- 5.5 Unscheduled Area (former pool area)– Other than access doors, no architectural work is included for this area other than temporary lights and temporary heat.

# Schedule A: Scope of Work

- 5.6 Reynolds will provide final cleaning in rooms where we will perform architectural work. Other areas where there is no architectural work will not be final cleaned. The School District will provide any floor waxing of new and existing flooring. Floor waxing is not included in this project. Terrazzo floors will remain as is.
- 5.7 The project includes cleaning the existing HVAC equipment. Duct cleaning is not included in this project.
- 5.8 Bulk pool chemicals except one pail of hypo calcium chloride will be removed by the school district. Reynolds will manage residual chemicals in the polypropylene tanks. The tanks and other equipment will be removed by Reynolds.
- 5.9 The roofing restoration alternate for Roof M and N2 with new 30-year warranty was not selected for inclusion in this project. The roofing alternate Roof N1 (Natatorium) 30-year new roof is also excluded from this project.
- 5.10 The alternate for an addition PT Sign Logo is not included in this project.
- 5.11 The new chiller and chiller plant design will be around a nominal 270-ton chiller. The alternate to increase the chiller to a nominal 320-tons unit is excluded from this project.
- 5.12 The project does not include any Bipolar Ionization equipment and any other specific Engineered Infection Protection (EIP) equipment.
- 5.13 The existing sprinkler system was reviewed during a Building Code Review Meeting with Peters Township on April 14, 2020, the township agreed that the Level 2 work areas (Admin Suite, Orchestra/LGI, Speech/Social Worker Area, Art Room, and Planning Center) will be designed to conform with the 2015 IBC and 2015 IFC (which the design does conform). The township also confirmed that the School District is not required to upgrade the entire building sprinkler system since this project is a Level 2 alteration project and the work area is less than 50% of the floor area. As a result, the existing sprinkler system will remain as is in areas NOT modified during this project.
- 5.14 The existing drawings indicate that stair pressurization fans were installed in 1999 for the original building stairwells. The project includes removing the stair pressurization fans, capping the roof curbs, and abandoning the associated ductwork in place. The HVAC drawings show the existing ductwork for future reference should the need for pressurization change in the future.
- 5.15 PA/Clock System: Reynolds will relocate the existing PA/Clock head end equipment from the current Middle School for reuse on this project. The District will provide all clocks and speakers compatible with the new head end equipment. All wiring is included in the project.
- 5.16 Security: Any new security cameras will be provided by the District.

# Schedule B: Costs and Cash Flow

<b>Peters Township HS--&gt;MS Conversion</b>						
Energy Project Financial Overview						
EEM #	EEM Name	EEM Construction Cost	Annual Resource Savings	Annual Operational Savings (1)	Potential Act 129 Incentive	
<b>Peters Township HS--&gt;MS Conversion</b>						
1	HVAC	\$ 4,948,489	\$ 7,445	\$ 8,000	\$ 1,241	
2	ATC	\$ 2,083,190	\$ 2,720	\$ 12,000	\$ 1,955	
3	Plumbing	\$ 335,503	\$ 552	\$ 2,400	\$ -	
4	Electrical	\$ 1,940,200	\$ 30,404	\$ 2,615	\$ 12,457	
5	Sprinkler	\$ 84,643	\$ -	\$ -	\$ -	
6	Architectural Interior	\$ 973,883	\$ -	\$ 4,000	\$ -	
7	Architectural Envelope	\$ 5,921,670	\$ 2,065	\$ 12,000	\$ -	
8	Code compliance	\$ 77,748	\$ -	\$ 1,600	\$ -	
<b>PROJECT TOTALS</b>		<b>\$ 16,365,325</b>	<b>\$ 43,187</b>	<b>\$ 42,615</b>	<b>\$ 15,653</b>	

**NOTES:** (1) Operational savings primarily include avoided costs of maintaining removed equipment and reduced costs for replacing lighting lamps and ballasts.  
 (2) Simple payback is calculated using the total of construction costs minus the Act 129 incentives divided by the annual resource and O&M savings.

# Schedule B: Costs and Cash Flow

## SCHEDULE B Cash Flow Analysis

## PETERS TOWNSHIP HS-->MS CONVERSION Guaranteed Energy Savings Contract

**Financed Project Cost (1) \$ 16,365,325**  
 Finance Term (years): 20  
 Annualized Interest Rate: 3.50%

**Est. Avoided Capital Cost \$ 10,660,084**  
**Estimated Utility Rebates \$ 15,653**

**Escalation Rates by Utility & Fuel**  
 Electric: 3.0%  
 Natural Gas: 3.0%  
 Water: 3.0%  
 Other: 3.0%  
 Operational: 3.0%  
 Escalation Rates for Annual Fees: 2.5%

Year	Electric Cost Savings	Natural Gas Cost Savings	Operational Cost Savings	Total Cost Savings	Guaranteed Savings	Avoided Capital Savings	Annual M&V Fees	Financing Payment	Net Savings
1	\$ 38,769	\$ 4,419	\$ 42,615	\$ 85,802	\$ 81,483	\$ 1,057,464		\$ (1,138,948)	\$ -
2	\$ 39,932	\$ 4,551	\$ 43,893	\$ 88,376	\$ 83,928	\$ 1,063,600	\$ (8,580)	\$ (1,138,948)	\$ -
3	\$ 41,130	\$ 4,688	\$ 45,210	\$ 91,028	\$ 86,446	\$ 1,061,296	\$ (8,795)	\$ (1,138,948)	\$ -
4	\$ 42,363	\$ 4,828	\$ 46,567	\$ 93,758	\$ 89,039	\$ 1,058,923	\$ (9,015)	\$ (1,138,948)	\$ -
5	\$ 43,634	\$ 4,973	\$ 47,964	\$ 96,571	\$ 91,710	\$ 1,056,477	\$ (9,240)	\$ (1,138,948)	\$ -
6	\$ 44,943	\$ 5,122	\$ 49,402	\$ 99,468	\$ 94,462	\$ 1,053,957	\$ (9,471)	\$ (1,138,948)	\$ -
7	\$ 46,292	\$ 5,276	\$ 50,885	\$ 102,452	\$ 97,296	\$ 1,051,360	\$ (9,708)	\$ (1,138,948)	\$ -
8	\$ 47,680	\$ 5,434	\$ 52,411	\$ 105,526	\$ 100,214	\$ 1,048,684	\$ (9,950)	\$ (1,138,948)	\$ -
9	\$ 49,111	\$ 5,597	\$ 53,983	\$ 108,692	\$ 103,221	\$ 1,045,926	\$ (10,199)	\$ (1,138,948)	\$ -
10	\$ 50,584	\$ 5,765	\$ 55,603	\$ 111,952	\$ 106,317	\$ 1,043,084	\$ (10,454)	\$ (1,138,948)	\$ -
11	\$ 52,102	\$ 5,938	\$ 28,635	\$ 86,675	\$ 80,871	\$ 1,068,792	\$ (10,716)	\$ (1,138,948)	\$ -
12	\$ 53,665	\$ 6,116	\$ 29,495	\$ 89,276	\$ 83,298	\$ 1,066,633	\$ (10,983)	\$ (1,138,948)	\$ -
13	\$ 55,275	\$ 6,300	\$ 30,379	\$ 91,954	\$ 85,797	\$ 1,064,409	\$ (11,258)	\$ (1,138,948)	\$ -
14	\$ 56,933	\$ 6,489	\$ 31,291	\$ 94,713	\$ 88,370	\$ 1,062,116	\$ (11,539)	\$ (1,138,948)	\$ -
15	\$ 58,641	\$ 6,684	\$ 32,230	\$ 97,554	\$ 91,022	\$ 1,059,754	\$ (11,828)	\$ (1,138,948)	\$ -
16	\$ 60,400	\$ 6,884	\$ 16,598	\$ 83,882	\$ 77,154	\$ 1,073,917	\$ (12,124)	\$ (1,138,948)	\$ -
17	\$ 62,212	\$ 7,091	\$ 17,096	\$ 86,399	\$ 79,469	\$ 1,071,906	\$ (12,427)	\$ (1,138,948)	\$ -
18	\$ 64,079	\$ 7,303	\$ 17,609	\$ 88,991	\$ 81,853	\$ 1,069,832	\$ (12,737)	\$ (1,138,948)	\$ -
19	\$ 66,001	\$ 7,522	\$ 18,137	\$ 91,661	\$ 84,308	\$ 1,067,695	\$ (13,056)	\$ (1,138,948)	\$ -
20	\$ 67,981	\$ 7,748	\$ 18,681	\$ 94,410	\$ 86,838	\$ 1,065,492	\$ (13,382)	\$ (1,138,948)	\$ -
<b>TOTAL</b>	<b>\$ 1,041,727</b>	<b>\$ 118,730</b>	<b>\$ 728,685</b>	<b>\$ 1,889,141</b>	<b>\$ 1,773,096</b>	<b>\$ 21,211,316</b>	<b>\$ (205,462)</b>	<b>\$ (22,778,950)</b>	<b>\$ -</b>

- NOTES:**
1. Financed Project Cost reflects the guaranteed fixed price of the scope executed under the Guaranteed Energy Savings Agreement, including the first year of measurement and verification of savings.
  2. Avoided Capital Savings includes the amortized annual cost of capital equipment replacement or repairs that would be realized by the Owner within the lifetime of the Energy Project, but will instead be completed and financed through the Energy Project. Savings include the total costs for all design, bidding, bonding, permitting, equipment and installation labor required to complete the work. The amount shown represents the Net Present Value of the savings over the term.
  3. Estimated payment from First Energy - West Penn Act 129 rebate programs based on information published by First Energy - West Penn and applied to this project. Rebates are not included in the cash flow.

# Schedule C: Guaranteed Energy Savings

Reynolds Energy Services (RES) guarantees that the Customer will achieve savings in Year 1 as listed in the following table. Escalation rates will be applied to future year savings according to the Cash Flow Analysis included in Schedule B.

**TABLE: Guaranteed Annual Energy Savings by Measure and Resource**

EEM	ELECTRIC			FUELS		O&M	TOTAL
	kWh	kW	\$	dtherms	\$	\$	\$
1 HVAC	49,652	96	\$ 3,763	909	\$ 3,682	\$ 8,000	\$ 15,445
2 ATC	43,445	83	\$ 2,720	-	\$ -	\$ 12,000	\$ 14,720
3 Plumbing	-	-	\$ -	136	\$ 552	\$ 2,400	\$ 2,952
4 Electrical	488,509	886	\$ 30,404	-	\$ -	\$ 2,615	\$ 33,019
5 Sprinkler	-	-	\$ -	-	\$ -	\$ -	\$ -
6 Architectural Interior	-	-	\$ -	-	\$ -	\$ 4,000	\$ 4,000
7 Architectural Envelope	31,032	44	\$ 1,881	45	\$ 184	\$ 12,000	\$ 14,065
8 Code compliance	-	-	\$ -	-	\$ -	\$ 1,600	\$ 1,600
<b>TOTAL</b>	<b>612,639</b>	<b>1,109</b>	<b>\$ 38,769</b>	<b>1,091</b>	<b>\$ 4,419</b>	<b>\$ 42,615</b>	<b>\$ 85,802</b>

The guaranteed savings shall be calculated as shown in Schedule F for the term of the Agreement. RES will pay the Customer the difference between the annual amount guaranteed and the amount of actual energy savings achieved in accordance with the provisions provided within the GESA as mutually agreed upon by RES and Customer. Payments for any savings shortfall will be paid to the Customer by RES in accordance with Section 4.2 of the GESA. Stipulated savings are savings that have been calculated and agreed upon by RES and Customer. Operational, maintenance and avoided capital savings are stipulated, and as such will not be tracked or measured. Rebates from utilities or any other source are not guaranteed by RES.

## *Operational and Maintenance (O&M) Savings*

Operational and maintenance (O&M) savings primarily include the maintenance costs avoided due to old or problematic equipment being replaced with new equipment or if equipment is altogether removed. Savings also include reduction in maintenance expense for materials during the new equipment warranty period.

**TABLE: Projected Operational & Maintenance Cost Savings (Year 1)**

EEM	NATURE OF COSTS AVOIDED OR SAVINGS GENERATED	ANNUAL SAVINGS
		\$
1 HVAC	Net maintenance impact of adding new equipment, replacing old equipment	\$ 8,000
2 ATC	Net maintenance impact of adding new equipment, replacing old equipment	\$ 12,000
3 Plumbing	Net maintenance impact of adding new equipment, replacing old equipment	\$ 2,400
4 Electrical	Net maintenance impact of adding new equipment, replacing old equipment	\$ 2,615
5 Sprinkler		\$ -
6 Architectural Interior	Net maintenance impact of adding new equipment, replacing old equipment	\$ 4,000
7 Architectural Envelope	Net maintenance impact of adding new equipment, replacing old equipment	\$ 12,000
8 Code compliance	Net maintenance impact of adding new equipment, replacing old equipment	\$ 1,600
<b>TOTAL</b>		<b>\$ 42,615</b>

# Schedule C: Guaranteed Energy Savings

## *Avoided Capital Cost Savings*

Avoided capital cost savings are defined as cost realized in the present to replace building equipment or components at or near the end of their useful lives that would otherwise need to be paid for as a future capital expense in absence of the project.

Avoided capital cost savings include the amortized annual cost of capital equipment replacement or repairs that would be realized by the Owner within the lifetime of the Energy Project but will instead be completed and financed through this project. Savings include the total costs for all design, bidding, bonding, permitting, equipment, and installation labor required to complete the work.

**TABLE: Avoided Capital Scope and Savings Breakdown**

Scope Item	Total Cost (1)
Plumbing equipment	\$ 336,234
HVAC equipment and piping	\$ 5,026,486
DDC system	\$ 2,083,190
Electrical equipment	\$ 1,412,183
Light fixtures	\$ 529,203
General construction	\$ 483,368
Windows and doors	\$ 789,419
<b>TOTAL:</b>	<b>\$ 10,660,084</b>
<p>NOTES: (1) Includes all Bidding, Permitting, Bonding, Equipment, and Installation Labor costs required to complete individual projects.</p> <p style="text-align: right;"><b>Monthly Payment Amount \$ 61,824</b></p> <p style="text-align: right;"><b>Annual Payment Amount \$ 741,890</b></p> <p style="text-align: right;">Annualized Interest Rate 3.50%</p> <p style="text-align: right;">Finance Term (months): 240</p>	

## Utility Rates

Guaranteed dollar amounts are calculated based on the base utility rates listed below, and escalated at the rates listed in Schedule B. If actual electric or gas rates are lower than those listed in this Schedule and escalated as described above, RES reserves the right to use the base utility rates for the guarantee period. If actual rates are higher than those listed in this Schedule and escalated as described above, RES reserves the right to use the actual rates for the guarantee period.

## Rate tariffs/avoided utility costs utilized in calculation of guaranteed energy savings

The rates shown in the table below were derived from bills provided for April 2019 through March 2020.

Provider	Utility	Description	Unit	Cost/Unit
West Penn Power	Electric	Distribution	kW	\$3.99
West Penn Power	Electric	Total Generation Charge w/tax	kWh	\$0.055
Columbia	Gas	T14 (Transportation charge)	MCF	\$2.67
Direct Energy	Gas	Commodity Charge	MCF	\$2.30

# Schedule C: Guaranteed Energy Savings

## Utility accounts that will be tracked for the guaranteed energy savings

Customer Name:	Customer Address:	Utility:	Account #:	Meter #:	Provider/Rate:
High School	264 East McMurray Rd, McMurray, PA 15317	Natural Gas (MMBTU)	436613	12984120-002	Direct Energy, CPA-TCO
High School	264 East McMurray Rd, McMurray, PA 15317	Electricity	100093920393	S17679719/A022182628	West Penn Power, WP-GP35D
High School	264 East McMurray Rd, McMurray, PA 15317	Natural Gas (DT)	12984120-002		Columbia Gas of Pennsylvania, T14

## Guaranteed Savings Reconciliation

The guarantee term will commence on the Commencement Date as defined in Section 3.1 and be referred to as the “savings guarantee commencement date”.

RES will monitor monthly utility usage for the guarantee period, within sixty (60) days of receiving pertinent utility bills. RES will provide Annual Savings Reports to the Customer, which shall include the initial calculation of the total dollar savings, the measurement and verification calculations and any other reasonable information requested by the Customer. Upon the submittal of the annual savings report, reconciliation (if necessary) will be in accordance with Section 4.2 of the GESA.

The Customer agrees to

1. Provide or cause its utility suppliers to provide periodic utility usage and cost in a timely manner. Preferably within two (2) weeks of the “Read Date” shown on the bill. RES will initiate data requests.
2. Execute all Customer responsibilities as set forth in the Agreement.
3. Provide RES full access to all pertinent facilities and information required for RES to perform its responsibilities. Access shall include but not be limited to the following:
  - a. All areas of all buildings included in the project
  - b. All utility meters included in the guarantee
  - c. All personnel responsible for operating and maintaining facilities
  - d. Remote access to building automation systems via credentials assigned to RES. Full access is required for commissioning and troubleshooting purposes. Access may be changed to read-only for monitoring at the conclusion of the commissioning process at the discretion of the Customer.
  - e. Actual monthly invoices for utilities
  - f. Inventories of material changes made within the facility as defined in Section 15 of the GESA

# Schedule D: Compensation to RES

## Breakdown of Monthly Estimated Billings by EEM

Peters Township HS-->MS Conversion														
SCHEDULE OF VALUES and DRAW														
EEM#	EEM Description	EEM Value	Nov-20		Dec-20		Jan-21		Feb-21		Mar-21		Apr-21	
			%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$
	Design Fees Paid	\$ 237,187		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Design/Mobilization	\$ 908,386	100%	\$ 908,386		\$ -		\$ -		\$ -		\$ -		\$ -
1	HVAC	\$ 4,354,670		\$ -	3.0%	\$ 130,640	5%	\$ 217,734	5%	\$ 217,734	10%	\$ 435,467	20%	\$ 870,934
2	ATC	\$ 1,833,207		\$ -	3.0%	\$ 54,996	5%	\$ 91,660	5%	\$ 91,660	10%	\$ 183,321	20%	\$ 366,641
3	Plumbing	\$ 295,243		\$ -	3.0%	\$ 8,857	5%	\$ 14,762	10%	\$ 29,524	10%	\$ 29,524	20%	\$ 59,049
4	Electrical	\$ 1,707,376		\$ -	3.0%	\$ 51,221	5%	\$ 85,369	10%	\$ 170,738	10%	\$ 170,738	25%	\$ 426,844
5	Sprinkler	\$ 74,486		\$ -		\$ -	5%	\$ 3,724	5%	\$ 3,724	40%	\$ 29,794	20%	\$ 14,897
6	Architectural Interior	\$ 857,017		\$ -		\$ -	10%	\$ 85,702	20%	\$ 171,403	20%	\$ 171,403	35%	\$ 299,956
7	Architectural Envelope	\$ 5,211,070		\$ -		\$ -	15%	\$ 781,660	20%	\$ 1,042,214	25%	\$ 1,302,767	20%	\$ 1,042,214
8	Code compliance	\$ 68,418		\$ -		\$ -	5%	\$ 3,421	5%	\$ 3,421	10%	\$ 6,842	30%	\$ 20,525
	Close Out	\$ 818,266		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	<b>Total</b>	<b>\$ 16,365,325</b>	<b>6%</b>	<b>\$ 908,387</b>	<b>2%</b>	<b>\$ 245,715</b>	<b>8%</b>	<b>\$ 1,284,032</b>	<b>11%</b>	<b>\$ 1,730,418</b>	<b>14%</b>	<b>\$ 2,329,857</b>	<b>19%</b>	<b>\$ 3,101,060</b>

EEM#	EEM Description	EEM Value	May-21		Jun-21		Jul-21		Aug-21		Sep-21		Oct-21	
			%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$	%	Draw \$
	Design Fees Paid	\$ 237,187		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Design/Mobilization	\$ 908,386		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
1	HVAC	\$ 4,354,670	20%	\$ 870,934	20%	\$ 870,934	14%	\$ 609,654	2.0%	\$ 87,093	1%	\$ 43,547		\$ -
2	ATC	\$ 1,833,207	20%	\$ 366,641	20%	\$ 366,641	14%	\$ 256,649	2.0%	\$ 36,664	1%	\$ 18,332		\$ -
3	Plumbing	\$ 295,243	30%	\$ 88,573	20%	\$ 59,049	2.0%	\$ 5,905		\$ -		\$ -		\$ -
4	Electrical	\$ 1,707,376	20%	\$ 341,475	15%	\$ 256,106	9%	\$ 153,664	2.0%	\$ 34,148	1%	\$ 17,074		\$ -
5	Sprinkler	\$ 74,486	25%	\$ 18,622	4%	\$ 2,979	1%	\$ 745	1%	\$ 372		\$ -		\$ -
6	Architectural Interior	\$ 857,017	10%	\$ 85,702	4%	\$ 34,281	1%	\$ 8,570		\$ -		\$ -		\$ -
7	Architectural Envelope	\$ 5,211,070	15%	\$ 781,660	4%	\$ 208,443	1%	\$ 52,111		\$ -		\$ -		\$ -
8	Code compliance	\$ 68,418	35%	\$ 23,946	14%	\$ 9,578	1%	\$ 684		\$ -		\$ -		\$ -
	Close Out	\$ 818,266		\$ -		\$ -		\$ -		\$ -		\$ -	100%	\$ 818,266
	<b>Total</b>	<b>\$ 16,365,325</b>	<b>16%</b>	<b>\$ 2,577,553</b>	<b>11%</b>	<b>\$ 1,808,012</b>	<b>7%</b>	<b>\$ 1,087,981</b>	<b>1%</b>	<b>\$ 158,277</b>	<b>0%</b>	<b>\$ 78,953</b>	<b>5%</b>	<b>\$ 818,266</b>

Actual billing shall be for work put in place in a given month as accepted by the Customer. Invoices are issued on the 1<sup>st</sup> of following month, with payment due 30 days following the invoice date.

# Schedule D: Compensation to RES

## Summary of Monthly Estimated Billings

MONTH	MONTHLY DRAW	CUMULATIVE DRAW	DRAW %
Nov-20	\$ 908,387	\$ 908,387	6%
Dec-20	\$ 245,715	\$ 1,154,102	7%
Jan-21	\$ 1,284,032	\$ 2,438,134	15%
Feb-21	\$ 1,730,418	\$ 4,168,552	26%
Mar-21	\$ 2,329,857	\$ 6,498,409	40%
Apr-21	\$ 3,101,060	\$ 9,599,469	60%
May-21	\$ 2,577,553	\$ 12,177,022	75%
Jun-21	\$ 1,808,012	\$ 13,985,034	87%
Jul-21	\$ 1,087,981	\$ 15,073,015	93%
Aug-21	\$ 158,277	\$ 15,231,292	94%
Sep-21	\$ 78,953	\$ 15,310,245	95%
Oct-21	\$ 818,266	\$ 16,128,511	100%
<b>TOTAL</b>	<b>\$ 16,128,511</b>		

## Schedule of Measurement and Verification (M&V) fees

Annual fees are escalated at a rate of 2.5% per year.

Performance Year	Annual Fee
2021	\$ -
2022	\$ 8,580
2023	\$ 8,795
2024	\$ 9,015
2025	\$ 9,240
2026	\$ 9,471
2027	\$ 9,708
2028	\$ 9,950
2029	\$ 10,199
2030	\$ 10,454
2031	\$ 10,716
2032	\$ 10,983
2033	\$ 11,258
2034	\$ 11,539
2035	\$ 11,828
2036	\$ 12,124
2037	\$ 12,427
2038	\$ 12,737
2039	\$ 13,056
2040	\$ 13,382

# Schedule E: Baseline Energy Consumption

## Electricity and Fuels Baselines

The following tables reflect the energy and costs baseline used in the calculation of energy savings for Peters Township High School (future Middle School) based on historical energy use and current or projected utility rates. Annual usage and costs have been adjusted to reflect April 2019 through March 2020 billing.

### Peters Township High School (future Middle School) Monthly Energy Consumption Profile

	ELECTRIC			FUELS		
	kWh	kW	\$	dtherms	gals-oil	\$
<b>Jan</b>	231,392	680	\$ 15,306	1,449	-	\$ 7,597
<b>Feb</b>	347,293	697	\$ 23,068	1,239	-	\$ 6,528
<b>Mar</b>	204,219	697	\$ 14,048	1,000	-	\$ 5,312
<b>Apr</b>	259,452	700	\$ 18,526	901	-	\$ 2,631
<b>May</b>	284,910	778	\$ 20,282	572	-	\$ 1,752
<b>Jun</b>	302,531	817	\$ 21,521	385	-	\$ 1,252
<b>Jul</b>	237,904	588	\$ 17,040	310	-	\$ 1,051
<b>Aug</b>	221,171	674	\$ 16,402	205	-	\$ 770
<b>Sep</b>	273,632	809	\$ 19,911	292	-	\$ 1,003
<b>Oct</b>	262,860	798	\$ 19,270	477	-	\$ 1,498
<b>Nov</b>	245,350	783	\$ 18,216	969	-	\$ 2,813
<b>Dec</b>	232,529	705	\$ 17,258	1,293	-	\$ 3,680
	<b>3,103,243</b>	<b>8,725</b>	<b>\$ 220,848</b>	<b>9,092</b>	<b>-</b>	<b>\$ 35,885</b>

# Schedule F: Measurement & Verification

## Approach to Measurement and Verification of Savings

When preparing a guaranteed energy savings project, RES adheres to the most recent International Performance Measurement and Verification Protocol (IPMVP) as it applies to the given scope. The IPMVP is sponsored and maintained by a non-profit corporation known as the Efficiency Valuation Organization (EVO) and is the most recognized energy and water savings measurement and verification (M&V) protocol across the world. The IPMVP is a set of recommended guidelines and framework to evaluate energy and water efficiency projects. It does not define set standards for M&V on specific energy and water efficiency measures.

EVO has acknowledged that the IPMVP documents alone will not improve energy efficiency but must be applied by qualified professionals who demonstrate knowledge and understanding of the protocol. Such individuals may have the designation as Certified Measurement and Verification Professionals (CMVP<sup>®</sup>) and are qualified to promote sound M&V plans as well as adhere to best practices for management programs. RES has addressed this and has a CMVP on staff to help facilitate the M&V planning and reporting for all projects, as well as train staff members on proper implementation and execution. RES has created a custom M&V plan for this project that follows the core principles of the IPMVP, including the following:

- Accurate
- Complete
- Conservative
- Consistent
- Relevant
- Transparent

Quarterly reports of the avoided energy costs will be provided based on the established M&V plans. The following section outlines the framework and various options involved when developing a proper M&V plan. It should be noted that RES has worked with the district to identify all other operational and avoided costs within the project. Those items are shown separately from the truly “measured and verified” components of the project and are found in Schedule C of the GESA.

When conducting this analysis, the important factors to consider in developing a M&V plan are as follows:

- Can the impact of the energy efficiency measures be isolated and measured easily?
- Is the whole building being impacted and are the savings interactive?
- How much will the measure(s) save compared to the baseline usage?
- How much will M&V cost for the measures applied?

These questions help identify which (if any) of the four IPMVP options are taken into consideration. The following tables outline these options and are taken from the “IPMVP – Concepts and Options for Determining Energy and Water Savings – Volume 1, January 2012.”

# Schedule F: Measurement & Verification

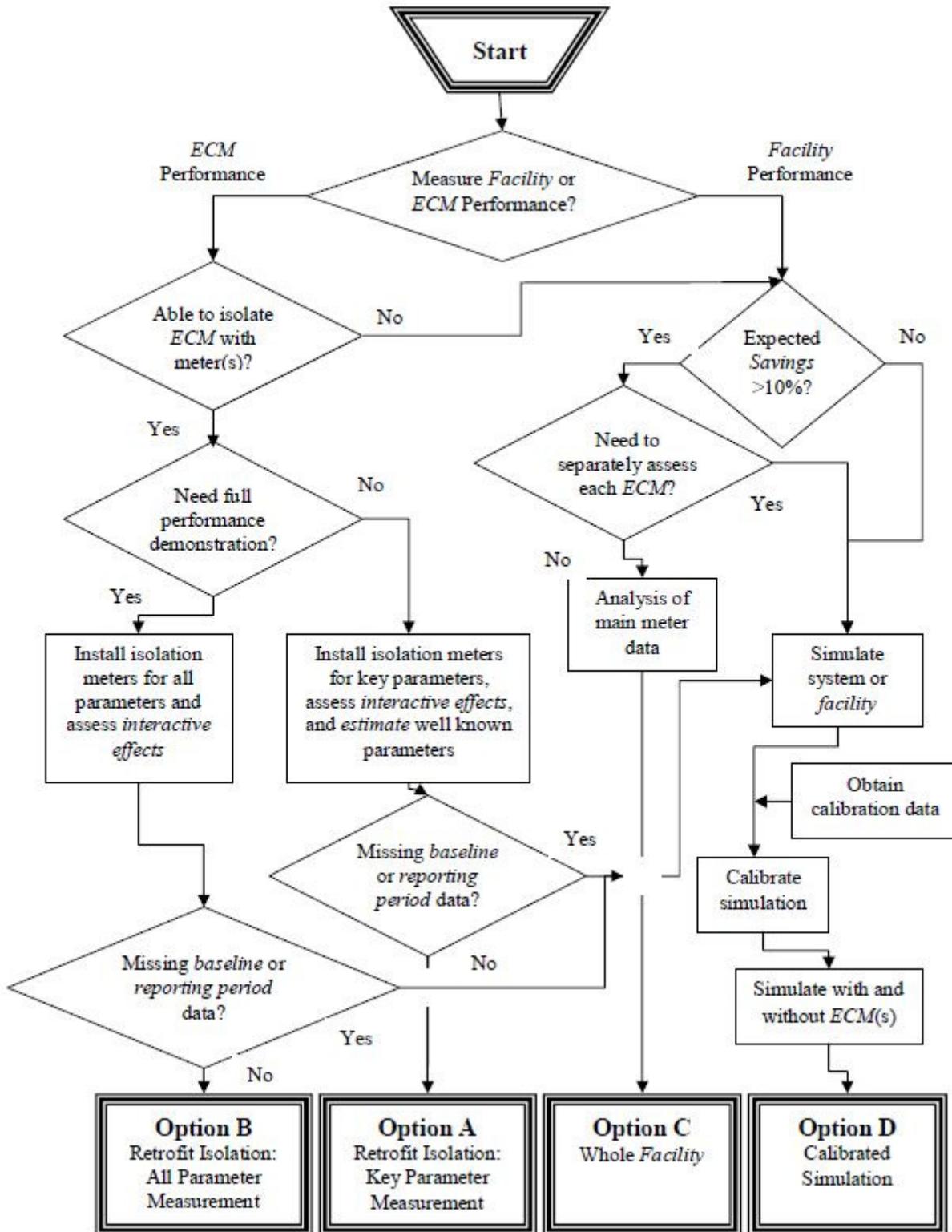
IPMVP Option	How Savings Are Calculated	Typical Applications
<p><b>A. Retrofit Isolation: Key Parameter Measurement</b></p> <p><i>Savings</i> are determined by field measurement of the key performance parameter(s) which define the <i>energy</i> use of the <i>ECM's</i> affected system(s) and/or the success of the project.</p> <p>Measurement frequency ranges from short-term to continuous, depending on the expected variations in the measured parameter, and the length of the <i>reporting period</i>.</p> <p>Parameters not selected for field measurement are <i>estimated</i>. <i>Estimates</i> can be based on historical data, manufacturer's specifications, or engineering judgment. Documentation of the source or justification of the <i>estimated</i> parameter is required. The plausible <i>savings</i> error arising from <i>estimation</i> rather than measurement is evaluated.</p>	<p>Engineering calculation of <i>baseline</i> and <i>reporting period energy</i> from:</p> <ul style="list-style-type: none"> <li>○ short-term or continuous measurements of key operating parameter(s); and</li> <li>○ <i>estimated</i> values.</li> </ul> <p><i>Routine</i> and <i>non-routine</i> adjustments as required.</p>	<p>A lighting retrofit where power draw is the key performance parameter that is measured periodically. Estimate operating hours of the lights based on <i>facility</i> schedules and occupant behavior.</p>
<p><b>B. Retrofit Isolation: All Parameter Measurement</b></p> <p><i>Savings</i> are determined by field measurement of the <i>energy</i> use of the <i>ECM-affected</i> system.</p> <p>Measurement frequency ranges from short-term to continuous, depending on the expected variations in the <i>savings</i> and the length of the <i>reporting period</i>.</p>	<p>Short-term or continuous measurements of <i>baseline</i> and <i>reporting-period energy</i>, and/or engineering computations using measurements of proxies of <i>energy</i> use.</p> <p><i>Routine</i> and <i>non-routine</i> adjustments as required.</p>	<p>Application of a variable-speed drive and controls to a motor to adjust pump flow. Measure electric power with a kW meter installed on the electrical supply to the motor, which reads the power every minute. In the <i>baseline period</i> this meter is in place for a week to verify <i>constant</i> loading. The meter is in place throughout the <i>reporting period</i> to track variations in power use.</p>

# Schedule F: Measurement & Verification

IPMVP Option	How Savings Are Calculated	Typical Applications
<p><b>C. Whole Facility</b></p> <p><i>Savings</i> are determined by measuring energy use at the whole <i>facility</i> or sub-<i>facility</i> level.</p> <p>Continuous measurements of the entire <i>facility's</i> energy use are taken throughout the <i>reporting period</i>.</p>	<p>Analysis of whole <i>facility baseline</i> and <i>reporting period</i> (utility) meter data.</p> <p><i>Routine adjustments</i> as required, using techniques such as simple comparison or regression analysis.</p> <p><i>Non-routine adjustments</i> as required.</p>	<p>Multifaceted energy management program affecting many systems in a <i>facility</i>. Measure energy use with the gas and electric utility meters for a twelve month <i>baseline period</i> and throughout the <i>reporting period</i>.</p>
<p><b>D. Calibrated Simulation</b></p> <p><i>Savings</i> are determined through simulation of the <i>energy</i> use of the whole <i>facility</i>, or of a sub-<i>facility</i>.</p> <p>Simulation routines are demonstrated to adequately model actual <i>energy</i> performance measured in the <i>facility</i>.</p> <p>This Option usually requires considerable skill in calibrated simulation.</p>	<p>Energy use simulation, calibrated with hourly or monthly utility billing data. (Energy end use metering may be used to help refine input data.)</p>	<p>Multifaceted energy management program affecting many systems in a facility but where no meter existed in the <i>baseline</i> period.</p> <p>Energy use measurements, after installation of gas and electric meters, are used to calibrate a simulation.</p> <p><i>Baseline</i> energy use, determined using the calibrated simulation, is compared to a simulation of <i>reporting period</i> energy use.</p>

The flow chart on the following page (also taken from the latest IPMVP version) outlines in more detail the evaluation process RES takes when developing a M&V plan.

# Schedule F: Measurement & Verification



# Schedule F: Measurement & Verification

## *Establishing Baseline Energy Use*

Establishing realistic baseline energy use is the key to a guaranteed energy savings project, in that it establishes the basis for all savings and creates the boundary conditions for the size of the savings opportunity. The baseline is more than the amount of energy used in the past, as reflected in a utility billing history; it is a prediction of how much energy a facility would use in the absence of the energy project during current and future operating parameters and weather conditions. The table below shows Reynolds' methods for establishing the energy baseline.

<b>Reynolds Methods for Establishing Energy Baseline</b>
<b><i>Utility Meter Data Analysis: Applied to Option C - Whole Building Metering.</i></b>
<ol style="list-style-type: none"><li>1. Establish energy use from utility bills over a two-year period prior to the project.</li><li>2. Construct a baseline energy model based on independent variables such as weather.</li><li>3. Apply normal weather data to the baseline energy model to determine the normalized annual energy baseline per applicable fuel type.</li><li>4. Adjust the baseline to compensate for operating abnormalities such as non-typical shutdowns, code compliance, building alterations, or other events (such as summer school or night classes) that might affect typical year energy usage.</li><li>5. Apply predetermined fuel rates to each utility type, aggregate costs to determine baseline energy costs. Apply predetermined escalation rates each year thereafter.</li><li>6. Adjust baseline monthly or yearly as required to compensate for operational changes.</li></ol>
<b><i>Retrofit-Specific Analysis: Applied to Option A – Retrofit Isolation</i></b>
<ol style="list-style-type: none"><li>1. Measure or estimate key parameter of existing equipment energy use prior to removal based on short-term measurements or manufacturer data (e.g., current and voltage readings for lighting, motors, etc.)</li><li>2. Estimate usage frequency (e.g., hours of operation) based on current building usage patterns.</li><li>3. Calculate estimated annual energy or water use utilizing accepted engineering calculations.</li><li>4. Apply predetermined fuel rates to each utility type, aggregate costs to determine baseline energy costs. Apply predetermined escalation rates each year thereafter.</li></ol>

# Schedule F: Measurement & Verification

## *Baseline Adjustments*

The calculation methodology section of each M&V plan includes procedures for updating baseline or savings calculations during the project’s performance period to compensate for the variables that affect savings. The generic methodologies shown in the following table are applied on a project and conservation measure specific basis:

Variable Affecting Savings	Post-Installation	Performance Period
<b>Energy Prices:</b> Neither Reynolds nor the owner has significant control over actual energy prices.	Energy prices and their escalation rates are fixed in the project’s guarantee contract language.	
<b>Operations:</b> Beyond normal maintenance and operations, Owner’s operating practices.	Savings calculations adjusted to reflect variance from the project’s operational intent per the contract.	
<b>Operating Hours:</b> Changes in the length of operation of the facility, buildings, and systems.	Baseline and/or savings calculations adjusted to reflect variance from the project’s operational intent per the contract.	
<b>Loads:</b> Changes in equipment and process loads not directly controlled by the building HVAC and lighting systems.	Baseline calculations adjusted to reflect changes from the project’s operational intent per the contract.	
<b>Preventive Maintenance, Repair and Replacement:</b> In order to sustain energy savings, equipment/system performance must be maintained.	Not applicable	Savings calculations adjusted to reflect negative variance from equipment/systems performance criteria.
<b>Major Changes to Facility:</b> Changes such as reduction or increase in the number of students, facility closures, adding new wings, code non-compliance, or adding new loads (e.g., computers).	Baseline and/or savings calculations adjusted to reflect facility changes.	
<b>Weather:</b> Variations from “normalized” weather.	Not applicable	Baseline and/or savings calculations adjusted to reflect variance from normalized weather.

# Schedule F: Measurement & Verification

## *Weather Normalization Procedure*

The normalization adjustment for weather is expressed as follows:

$$BEU_m = Base + (F1 \times HDD_m) + (F2 \times CDD_m)$$

Where,	BEU <sub>m</sub>	=	Baseline energy use for month m
	Base	=	Constant, non-weather related energy consumption per month
	F1	=	Heating degree day factor
	HDD <sub>m</sub>	=	Number of heating degree days in month m
	F2	=	Cooling degree day factor
	CDD <sub>m</sub>	=	Number of cooling degree days in month m

In the above equation, Base, F1, and F2 are determined from the regression. The heating and cooling degree days are determined from current weather data. The heating and cooling degree day calculations are calculated using a base temperature that fits the building. Other non-routine adjustment factors such as change of floor-space, change in use of space etc. can be adjusted using similar mathematical relationships of dependent and independent variables.

## *Maintaining Savings*

Reynolds' M&V methods are designed to provide feedback loops regarding variance from the project's operational intent. Typically, RES includes technical assistance within measurement and verification fees; this enables the collaboration required between RES and facility Operations and Maintenance staff to maintain performance throughout the project's performance period.

## *Reports*

If bills are available per Schedule C, RES will provide quarterly energy performance updates. Annually, RES provides a report that reconciles savings per the projects M&V plan. The following information is provided in the report:

- Utility Data Analysis - As required by the project's M&V plan, analysis of utility meter(s) energy use data is provided.
- Savings and Guarantee Reconciliation - Savings calculations are updated per the project's M&V plan. Guarantee is updated to reflect refinements that have negatively impacted savings.
- Measurement and Verification Data - Performance Period measurement data.

# Schedule F: Measurement & Verification

## Project Specific M&V Methodologies

Measurement and verification plans specific to individual or logical groupings of conservation measures are included in this schedule. The EEMs are indexed to IPMVP methods in the following table:

Energy Efficiency Measure	IPMVP Option A Partially Measured Retrofit Isolation	IPMVP Option B Retrofit Isolation	IPMVP Option C Whole Facility	IPMVP Option D Calibrated Simulation
EEM 1: HVAC Improvements			X	
EEM 2: DDC Control System			X	
EEM 3: Plumbing Upgrades			X	
EEM 4: Electrical Upgrades			X	
EEM 6: Sprinkler Upgrades	N/A			
EEM 5: Architectural Interior	N/A			
EEM 7: Architectural Envelope			X	
EEM 8: ADA/Code compliance	N/A			

### Project Specific M&V Plan

A logical M&V approach has been developed based on the scope of work outlined in Schedule A. A detailed outline of the M&V plan for the High School (future Middle School) can be found on the following pages.

- 1) **Building energy efficiency measure(s) summary**
  - ✓ HVAC Improvements
  - ✓ DDC Control System
  - ✓ Plumbing Upgrades
  - ✓ Electrical Upgrades
  - ✓ Architectural Envelope
  
- 2) **IPMVP option description and boundary conditions**
  - ✓ Option C: Whole Facility – Electricity Consumption – Tracked utility metered billing
  - ✓ Option C: Whole Facility – Natural Gas Consumption – Tracked utility metered billing
  
- 3) **Baseline:** Period, energy and conditions

# Schedule F: Measurement & Verification

- ✓ Identification of baseline period – one-year fuel data from April 2019 through March 2020– weather normalized to 2019-2020 school fiscal year
  - ✓ Baseline energy and consumption profile – Savings will be calculated from baseline indicated in Schedule E
  - ✓ Independent variables used (i.e. ambient outside air temperature)
    - Weather data source: [www.weatherdatadepot.com](http://www.weatherdatadepot.com)
    - Station : McMurray, PA 15317 - Code: PAMM
  - ✓ Static factors dealing with energy and water usage
    - a. Occupancy – 700 students; 50 faculty and staff
    - b. Water Usage Patterns
    - c. Building setpoints – Refer to Schedule I
    - d. Existing envelope conditions and square footage
    - e. HVAC and Plumbing equipment inventory – combination of existing and new MEP drawings available
    - f. Existing operating conditions – faulty dampers, dirty coils, etc.
- 4) **Analysis period:** Upon substantial completion of the project, a performance period commencement letter will be issued to the owner. A measurement and verification kick-off meeting will occur. Bills will then be collected monthly. Energy reduction values are indicated and reconciled if necessary on an annual basis.
- 5) **Basis for adjustment**
- ✓ Routine baseline adjustments
    - a. Linear regression models will be used to adjust the baseline to reflect actual weather conditions. An equation,  $y = m*x + b$ , is derived for both natural gas and specified electric consumption and demand.
  - ✓ Non-routine baseline adjustments
    - a. Procedure to calculate any changes in items 3a-3f as indicated above. Either agreed engineering calculations or appropriate building energy simulations.
- 6) **Analysis Procedure**
- ✓ Using the base equation as defined in the IPMVP,
- $$\text{Savings} = (\text{Baseline Energy} - \text{Reporting Period Energy}) \pm \text{Routine Baseline Adjustments} \pm \text{Non-Routine Baseline Adjustments}$$
- 7) **Energy Prices:** Refer to Schedule C for utility rates being applied to the savings calculation shown above.
- 8) **Meter Specification:** Refer to Schedule C for a list of utility accounts and meters being analyzed.
- 9) **Monitoring Responsibilities:** RES and the client will outline roles and responsibilities associated with bill procurement, M&V reporting and project performance assurance at initial M&V kick-off meeting.

# Schedule F: Measurement & Verification

- 10) **Expected Accuracy:** Billing accuracy based on utility information provided. Balance point used for analysis will be 65 degrees Fahrenheit.
- 11) **Budget:** The first year cost is included in contract. Refer to Schedule C for annual fees.
- 12) **Report Format:** Quarterly reports and an annual report. Report outlines are geared to the needs of the Owner. Calculations will be made transparent and any data used will be available at the client's request.
- 13) **Quality Assurance:** RES Performance Assurance staff will perform the necessary client meetings and outline specific documentation requirements to ensure a successful energy efficiency project.

# Schedule G: Construction and Installation

## Introduction

This schedule provides milestone dates for construction and installation of the scope of work included in Schedule A of this contract. The project on-site work will be completed between January 11, 2021 and substantially complete no later than August 20, 2021. RES will require the entire building to be vacated during construction.

## Purpose

The purpose of this schedule is to maintain a controlled work site with the highest possible quality of construction services. The schedule is structured to allow the project to begin on October 20, 2020 **or as soon as Peters Township School District and RES execute the Guaranteed Energy Savings Agreement and appropriate notices are received by RES.** Based upon this schedule, subcontractor award and equipment submittals and approvals are projected to be completed and equipment available for installation starting on January 11, 2021. If the new High School is not completed, a late start date as late as February 15, 2021 is possible. It is anticipated that all work will be substantially completed no later than August 20, 2021 in time for teachers to return and prepare for students.

## Construction Sequence

Reynolds as developed the construction sequence to allow work activities to commence as soon as the materials with the shortest lead times become available.

Work activities have been scheduled to occur at times that minimize impacts to occupied facilities. Furthermore, construction of the project has been sequenced such that various trade activities are properly staged to limit the effects of trade stacking on any particular work trade. This will allow the most qualified tradesmen to perform their work with a focus on high quality workmanship while minimizing impact to both the facility and its occupants. Our on-site Construction Manager will work closely with the designated representative from the District on a daily basis to ensure that all work activities commence and continue with the least possible intrusion into the daily activities of the functioning facility. RES will examine and address these concerns thoroughly while creating the detailed construction installation schedules and will maintain reasonable flexibility in those schedules to allow the District to dictate reasonable changes needed as a result of events or unforeseen commitments of spaces.

Following project completion, RES will deliver as-built documentation, and operations and maintenance (O&M) documents to the District and schedule and facilitate training sessions for facilities personnel. RES will coordinate and schedule final inspections and acceptance by the District as each major component of the project is completed.

The following schedule outlines milestones associated with the GESA contract completion, Construction/Installation Phase, and the Measurement and Verification (M&V) Phase.

# Schedule G: Construction and Installation

Peters Township School District				
Preliminary Project Schedule				
Milestones - Components		Min Days	Start	Finish
<b>A</b>	<b>Construction/Installation</b>			
A.1	Award Subcontracts	10	10/20/2020	10/30/2020
A.2	Submittals and Equipment Procurement	97	10/30/2020	2/4/2021
A.3	Mobilization	0	1/11/2021	1/11/2021
A.4	<i>Mobilization (Late Start)</i>	0	2/15/2021	2/15/2021
A.5	Construction Period (or coinciding with Late Start)	221	1/11/2021	8/20/2021
A.6	Substantial Completion	0	8/20/2021	8/20/2021
A.7	<i>Schools ready for teachers and students</i>	0	8/20/2021	8/20/2021
A.8	Punchlist: work not intruding on school operation	25	8/23/2021	9/17/2021
A.9	Punchlist Completion	0	9/17/2021	9/17/2021
A.10	O&M As-builts/Closeout	30	9/17/2021	10/17/2021
<b>B</b>	<b>Measurement and Verification Phase</b>			
B.1	Commissioning	90	6/19/2021	9/17/2021
B.2	Training	5	8/20/2021	8/25/2021
B.3	Performance Analysis	60	9/17/2021	11/16/2021
B.4	Guaranteed Performance Period	365	11/16/2021	11/15/2022
B.5	Report Preparation	21	11/30/2022	12/21/2022

# Schedule H: Start Up and Commissioning

## Introduction

The purpose of this document is to communicate the process and scope for commissioning services associated with the project. Confidence in building performance is created by executing the commissioning plan contained herein.

The commissioning (Cx) process executes the testing necessary to verify the project design, contractor and vendor performance, and the baseline performance of the installed systems. This documentation verifies the use of proper construction processes and documents resultant system and building performance. These data provide a comparative basis for analysis of the building performance over time. The commissioning process is summarized as follows:

- Define desired performance criteria.
- Prove design compliance with performance criteria.
- Collect actual performance data.
- Distill results into useful information.
- Strategize optimal performance.
- Take action to achieve predictable results.
- Train the user.

## Strategy

Commissioning is applied at various phases of construction from design to completion and operation. The scope is defined by identifying the systems to be commissioned, system functional testing, and integrated systems acceptance testing for each scope item.

## Systems to be Commissioned

The following table summarizes the types of systems and specific equipment to be commissioned at part of this project.

TABLE: Summary of Systems to be Commissioned

System Type	Equipment
<b>EEM 1: HVAC Improvements</b>	
HVAC equipment	Hot water boilers, pumps, chiller, fan coil units, dedicated outdoor air units, rooftop air handlers, VRV system, unit heaters, exhaust fans
<b>EEM 2: DDC Control System</b>	
New direct digital controls (DDC)	Any new DDC controllers associated with the new HVAC equipment and associated sequences of operation and schedules.
<b>EEM 3: Domestic Plumbing Fixtures</b>	
Domestic Water Fixtures Water softener	New sinks and toilets.

# Schedule H: Start Up and Commissioning

System Type	Equipment
<b>EEM 4: Electrical Upgrades</b>	
Power distribution, Lighting Telecommunications Life Safety, Security	Switchgear, subpanels, PA and clock systems, Fire alarm system. Any new LED fixtures replacing existing fixtures with T8 lamps/ballasts; lighting controls Card access and call systems
<b>EEM 5: Sprinkler System</b>	
Sprinkler System	Sprinkler Heads, Fire Alarm System integration
<b>EEM 6: Architectural Interior</b>	
Doors	Door operations
<b>EEM 7: Architectural Exterior</b>	
Windows	New window systems
<b>EEM 8: ADA/Code Compliance</b>	
New fixtures	Clearance

## Roles and Responsibilities

Project team member roles and responsibilities for each process of the service are summarized in the table below. All phases of the process may not be applicable to each component of the project:

TABLE: Roles and Responsibilities during Commissioning Process

Cx Phase/Process	Roles, Responsibilities, & Work Products
<i>Pre-Design</i>	
Develop Cx Plan	<i>Commissioning Authority (CxA)</i> develops a Commissioning Plan.
Document Performance Criteria	<i>CxA</i> issues written guidelines for format and content of performance criteria. <i>Design Team</i> develops performance criteria. <i>CxA</i> reviews performance criteria and quantifies non-performance issues. <i>Project Team</i> resolves non-performance issues quantified in the Project Issues List.
<i>Design</i>	
Engineering Analysis	During contract documents phase of design, <i>CxA</i> quantifies non-performance issues through preliminary and final reviews of design documents. <i>Project Team</i> resolves non-performance issues quantified in the Project Issues List.
Specify Performance Testing Requirements	<i>CxA</i> develops System Pre-Functional & Functional Performance test plan, Integrated Systems Acceptance Test Plan, and supporting technical specifications. <i>Design Team</i> approves plans and technical specifications.
<i>Construction</i>	
Manage Performance Testing	<i>CxA</i> creates and manages critical path performance testing schedule. <i>Owner, Project Team</i> resolves non-performance issues quantified in the Project Issues List during performance testing.
Review Contractor Submittal Documentation	<i>Design Team</i> and <i>CxA</i> quantify non-performance issues through review of <i>Construction Team's</i> submittal documentation. <i>Project Team</i> resolves non-performance issues quantified in the Project Issues List.
Develop Performance Testing Documentation	<i>CxA</i> develops Pre-Functional and Functional Performance Testing Manual(s) and Integrated System Acceptance Testing Manuals. <i>Design Team</i> approves manuals.

# Schedule H: Start Up and Commissioning

Cx Phase/Process	Roles, Responsibilities, & Work Products
Pre-Functional & Functional Performance Testing	CxA quantifies non-performance issues by executing Pre-Functional and Functional Performance Testing.
<i>Closeout</i>	
Acceptance Performance Testing	CxA quantifies non-performance issues through execution of Integrated Systems Acceptance Performance Testing.
Review Contractor Closeout Documentation	<i>Design Team</i> and CxA quantify non-performance issues through review of <i>Construction Team's</i> closeout documentation. <i>Project Team</i> resolves non-performance issues quantified in the Project Issues List.
Communicate Performance Testing Final Results	<i>Design Team</i> updates performance criteria. CxA develops Commissioning Report for approval by <i>Design Team</i> . Commissioning Report submitted to <i>Owner Team</i> by CxA.

## Functional Performance Testing

Each system commissioned is subjected to a phased functional performance testing process that quantifies its performance relative to design intent. The following table summarizes each phase of Functional Performance Testing (FPT):

TABLE: Functional Performance Testing Phases

FPT Phase	Description
Pre-Functional Testing	Verify that equipment and components associated with a specific system have been provided per contract documents and function independent of each other per design intent.
System Functional Testing	Verify that the equipment and components associated with a specific system function together per design intent.
Testing, Adjusting, Balancing, & Optimization	Measure, adjust, and document terminal equipment flow rates to attain design intent flows. Document performance and capacity of terminal and central equipment. Optimize system set points to minimize resource demand and consumption.
Training	Communicate system programming, design intent, and sequence of operations to Operations and Maintenance staff responsible for system performance. As required, augment communication with equipment or component factory training.

Functional Performance Testing is further explained in the following table.

TABLE: Summary of Functional Performance Tests

Description	Methods/Criteria
<i>Pre-Functional Testing</i>	
Equipment Verification	Visually inspect all equipment and components comprising the system. Verify consistency between specified, submitted, and installed equipment.

# Schedule H: Start Up and Commissioning

<b>Description</b>	<b>Methods/Criteria</b>
Installation Verification	Visually inspect all equipment and components comprising the system and verify installation per contract documents, maintainability, and operational availability.
Operation Verification	Test all equipment and components comprising the system to verify that their independent performance complies with design intent. Examples are duct leakage testing, pipe leakage testing, piping flushing, system controls startup, vendor equipment startup, etc.
<i>System Functional Testing</i>	
Fail Safe Functions	Test performance of each control function dedicated to “fail safe” system operation.
Equipment Protection, Interlocks, and Life Safety Interface Functions	Test performance of each control function dedicated to protecting system equipment, interfacing with life safety system(s), and interlocking operation of system equipment and components.
Hardware	Test performance of each system’s controls device (e.g., Equipment Enable/Disable, Start/Stop, and Step, Equipment Modulation, Modulating Components, Step Components, Analog Sensors, Digital Sensors, etc.).
Schedule/Mode Switch Control Functions	Test performance of each control function dedicated to time scheduling, staging of the system mode, or staging of equipment and components. Examples of these control functions are optimal start/stop, occupied/unoccupied operation, automatic equipment alternation, etc.
Basic Control Functions	Test performance of each control function required for system operation. Examples of these control functions are: AHU discharge temperature control, AHU discharge static pressure control, hydronic system differential pressure control, etc.
Advanced Control Functions	Test performance of each control function included to optimize a system, but not required for system operation. Examples of these control functions are AHU discharge temperature reset, hydronic system temperature reset, etc.
Failures & Alarms Control Functions	Test performance of each control function dedicated to system failure and alarming.
Set points and/or Configuration	Verify system controls set points and/or configuration parameters (i.e. Verify set points and configuration parameters for fan-powered terminal unit).
Graphical User Interface	Test performance of system graphical user interface.
<i>Testing, Adjusting, Balancing, &amp; Optimization</i>	
Measurement devices	Calibrate measurement devices (i.e., terminal unit primary airflow measurement stations, hydronic flow measurement stations, etc.)
Proportional Balance	Proportion airflow or hydronic flow to the identified system’s terminal devices (e.g., grilles, registers, diffusers, coils, etc.) per contract documents.
Distribution Equipment Performance	Measure performance of distribution equipment (e.g., fans, pumps, etc.).

# Schedule H: Start Up and Commissioning

Description	Methods/Criteria
Production Equipment Performance	Measure performance of production equipment (e.g., boilers, chillers, cooling towers, etc.).
Heat Transfer Equipment Performance	Measure performance of heat transfer equipment (e.g., heat exchangers, coils, etc.).
Optimum set point(s)	Optimize set points (e.g., AHU discharge static pressure set point, hydronic system differential pressure, etc.) to minimize resource consumption and/or demand.
<b>Training</b>	
Design Intent	Summarize how the system is designed and operated to comply with the facility's Operational Intent.
Sequence of Operations	Summarize how the system is automated to comply with the facility's Operational Intent.
Equipment or Component Training	Provide specified vendor training for key equipment and components.

## Industry Standards and Guidelines Utilized

Commissioning services are provided utilizing the following industry standards and guidelines:

- **ASHRAE Guideline 0-2013 – The Commissioning Process**
- **ASHRAE Standard 202-2013 – Commissioning Process for Buildings and Systems**
- **U.S. Green Building Council**
  - Leadership in Energy & Environmental Design (LEED) GreenBuilding Rating System
- **Building Commissioning Association**
  - Building Commissioning Attributes
- **California Commissioning Collaborative**
  - California Commissioning Guide: Existing Buildings
- **Portland Energy Conservation, Inc. (PECI)**
  - Model Commissioning Plan and Guide Specifications - 2005

# Schedule I: Standards of Comfort

## Comfort Standards - Indoor

The interior occupant space conditions (temperature and humidity) will conform to industry-standard practices of the HVAC industry as set-forth by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) in the standard's publication entitled, ASHRAE Standard 55-2013: Thermal Environmental Conditions for Human Occupancy.

It is important to note that because of individual differences and personal preferences pertaining to comfort, the standard is designed to accommodate a minimum of 80% of the occupants. Comfort is a measure that factors both dry bulb temperature and relative humidity. The following table is a summary of acceptable indoor comfort conditions:

Relative Humidity	Winter Temperature (indoor)	Summer Temperature (indoor)
30%	68.5°F to 73.5°F	75.0°F to 80.0°F
40%	68.0°F to 73.5°F	74.5°F to 80.0°F
50%	68.0°F to 73.5°F	74.0°F to 79.0°F
60%	67.5°F to 72.0°F	74.0°F to 78.5°F

A set point of 76°F will be utilized for cooling with a +/- of 2°F the local thermostat allowing the **minimum cooling occupied temperature to be 74°F** in the cooling mode. A set point of 70°F will be utilized for heating with a +/- of 2°F at the local thermostat allowing the **maximum heating occupied temperature to be 72°F**. Night setback will be adjusted such that indoor comfort levels can be established by the start of the occupied hours.

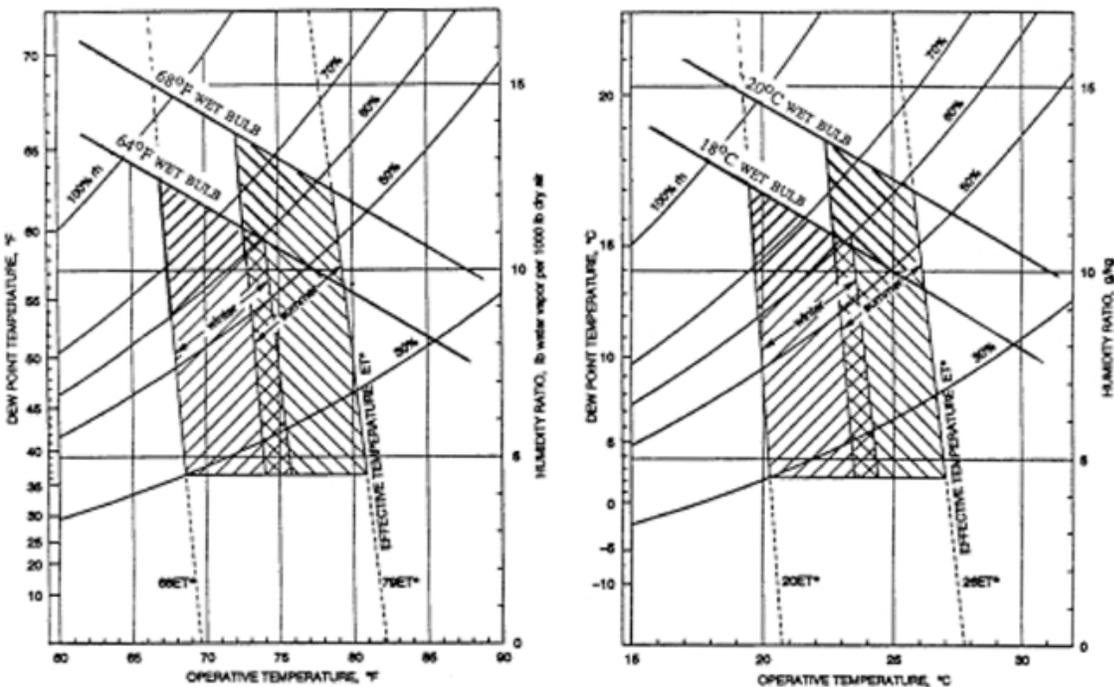


Figure 2 Acceptable ranges of operative temperature and humidity for people in typical summer and winter clothing during light, primarily sedentary activity ( $\leq 1.2$  met). The operative temperature ranges are based on a 10% dissatisfaction criterion.

ANSI/ASHRAE Standard 55 – Acceptable Temperature Ranges for Winter and Summer Operation

# Schedule I: Standards of Comfort

## Building Schedules and Set Points

This Section includes the building schedules and set points to be included for the various spaces located within the school. The following schedules and set points were used for baseline energy usage analysis and savings calculations. Any variance from these parameters may necessitate baseline adjustments.

### Main Session – Refer to School Calendar for Exact Dates

Space Type	Hours		Occupied Setpoints		Unoccupied Setpoints	
	Occupied	Unoccupied	Heating	Cooling	Heating	Cooling
Office Areas	M-F: 7-4	Wkd./Hol.	70	76	60	85
Classrooms	M-F: 7-4	Wkd./Hol.	70	76	60	85
Cafeteria	M-F: 7-4	Wkd./Hol.	68	76	60	85
Library	M-F: 7-4	Wkd./Hol.	68	74	60	80
Gymnasium/LGI	M-F: 7-4	Wkd./Hol.	68	76	60	85
Hallways	M-F: 7-4	Wkd./Hol.	68		60	
Storage areas	M-F: 7-4	Wkd./Hol.	65		60	

### Summer Session – Refer to School Calendar for Exact Dates

Space Type	Hours		Occupied Setpoints		Unoccupied Setpoints	
	Occupied	Unoccupied	Heating	Cooling	Heating	Cooling
Office Areas	M-F: 8-3	Wkd./Hol.		76		85
Classrooms		Weekday/Wkd./Hol.				85
Cafeteria		Weekday/Wkd./Hol.				85
Library		Weekday/Wkd./Hol.				80
Gymnasium/LGI		Weekday/Wkd./Hol.				
Hallways		Wkd./Hol.				
Storage areas		Weekday/Wkd./Hol.				

## School Calendar

The school calendar provided on the following page identifies Main Session and Summer Session occupied, weekend and holiday days for the 2021-2022 school year. Each successive performance year shall assume the same number of day types as reflected in this calendar.

# Schedule I: Standards of Comfort

## Peters Township School District 2021/2022 School Calendar

Tentative

Board Approved:

August 2021					February 2022					
M	T	W	H	F	M	T	W	H	F	
2	3	4	5	6	18		1	2	3	4
9	10	11	12	13	7	8	9	10	11	
16	<del>17</del>	<del>18</del>	<del>19</del>	<del>20</del>	14	15	16	17	<del>18</del>	
<del>21</del>	<del>22</del>	25	26	27	21*	22	23	24	25	
30	31				28					
12-13	New staff orientation								18	No School, Faculty Inservice (Act 80)
17-19	Faculty Inservice Day (8/19 - Act 80)								21	No School, Presidents' Day
20,23	Clerical Day									
24	First Day for Students									
Teachers 11 - Students 6					Teachers 19 - Students 18					

September 2021					March 2022						
M	T	W	H	F	M	T	W	H	F		
		1	2	3	23		1	2	3	4	
6	7	8	9	10	7	8	9	10	11		
13	14	15	16	17	14	15	16	17	18		
20	21	22	23	24	21	22	23	24	<del>25</del>		
27	28	29	30		28	29	30	31			
6	No School, Labor Day								23	End of Third Grade Period	
					25					25	No School, Inservice/Cler.
					31					31	Report Cards(PowerSchool)
Teachers 21 - Students 21					Teachers 23 - Students 22						

October 2021					April 2022					
M	T	W	H	F	M	T	W	H	F	
				1					1	
4	5	6	7	8	4	5	6	7	8	
11	12	13	14	15	11	12	13	14	15	
18	19	20	21	22	18	19	20	21	22	
25	26	27	<del>28</del>	<del>29</del>	25	26	27	28	29	
26	End of First Grade Period								11-15	No School, Spring Break
28	No School, Parent Conf. K-12									
29	No School, Inservice/Clerical									
Teachers 21 - Students 19					Teachers 16 - Students 16					

November 2021					May 2022					
M	T	W	H	F	M	T	W	H	F	
1	2	3	4	5	2	3	4	5	6	
8	9	10	11	12	9	10	11	12	13	
15	16	17	18	19	16	17	18	19	20	
22	23	<del>24</del>	25	26	23	24	25	26	27	
29	30				30	31				
3	Report Cards(PowerSchool)								30	No School, Memorial Day
24	No School, Inservice (Act 80)									
25-26	Thanksgiving Break, No School									
Teachers 20- Students 19					Teachers 21 - Students 21					

December 2021					June 2022						
M	T	W	H	F	M	T	W	H	F		
		1	2	3			1	2	<del>3</del>		
6	7	8	9	10	<del>6</del>	<del>7</del>	8	9	10		
13	14	15	16	17	13	14	15	16	17		
20	21	22	23	24	20	21	22	23	24		
27	28	29	30	31	27	28	29	30			
23-31	Winter Break, No School								3	Last Day of School for Students	
					3					3	Commencement, Class of 2022
					6					6	Inservice Day
					7					7	Clerical Day
					9					9	Report Cards(PowerSchool)
					21					21	Kennywood Day
Teachers 16 - Students 16					Teachers 5 - Students 3						

January 2022					
M	T	W	H	F	
3	4	5	6	7	
10	11	12	13	<del>14</del>	
17*	18	19	20	21	
24	25	26	27	28	
31					
13	End of Second Grade Period				
14	No School, Clerical				
17	No School, Martin Luther King Jr. Day				
20	Report Cards(PowerSchool)				
Teachers 20- Students 19					

 No School

 No School for Students, Staff Reports

\* School Closing Make-Up Days  
1/17, 2/21, and 6/6

Local Holidays: 11/26, 12/24, 12/27, 12/28, 4/15

Please see testing calendar on District website for a detailed list of dates. Student trips will not be approved during these dates.

**Total Teachers 193 - Total Students 180**

# Schedule J: Maintenance Responsibilities

RES will provide maintenance schedules, checklists and training necessary for the Customer to properly execute all maintenance activities for equipment installed under this Agreement.

## Maintenance Responsibilities

RES will provide training for systems and equipment installed as part of the Guaranteed Energy Savings Agreement. RES will either conduct or arrange for this equipment training utilizing RES personnel, equipment vendors and subcontractors to provide the proper level of training for the type of training requested. The Customer will be asked to provide a list of those individuals that should receive training and to assist RES in notifying these individuals. The Customer will provide, as needed, any required meeting space.

Each training opportunity will be tailored to the needs of the Customer needs and can be geared toward maintenance training or building user training. The goal is to avoid maintenance or end user frustration in dealing with systems that are foreign to the present facilities infrastructure.

Maintenance, repair, and timely replacement of mechanical systems are integral to achieving equipment performance and obtaining long-term energy savings. The element and responsibilities for equipment maintenance are summarized as follows:

- **Preventive Maintenance:** Provide standard equipment and component maintenance to prevent degradation of fundamental building systems performance. Examples include inspection, lubrication, testing, and adjustment. All preventative maintenance will be performed by the Customer. RES will provide the Customer with a preventative maintenance best practices plan summarizing the type and frequency of maintenance activities recommended by the manufacturer.
- **Planned Replacement:** Replacement or major rebuild of equipment and components will be required near the end of the economic useful life of the equipment, which will vary for each system. All planned replacement will be performed by the Customer.
- **Corrective Maintenance:** Repairs and/or adjustment of equipment and components to correct non-performance discovered during the execution of preventive and/or responsive maintenance. RES will provide corrective maintenance that is a direct result of a warranty issue for equipment installed under this agreement during the warranty period. All corrective maintenance on equipment failure that is not caused by a warranty issue, existing equipment, and maintenance required following the warranty period will be performed by the Customer.
- **Responsive Maintenance:** On call response to non-performance of systems, equipment, and components. Typically, response is provided within a time frame that is dependent upon the severity of the issue. Priority response levels are determined by the critical nature of systems, equipment, and components. RES will be responsible for providing responsive maintenance that is a direct result of a warranty issue for equipment installed under this GESA during the warranty period. All responsive maintenance on equipment failures that were not caused by a warranty issue, existing equipment, and maintenance required following the warranty period will be performed by the Customer.

# Schedule J: Maintenance Responsibilities

## **Warranty Summary**

All equipment installed as part of this Guaranteed Energy Savings Project will be covered by a one-year warranty from the date of EEM completion, equipment startup and beneficial use by the Owner. Where new equipment is added to existing equipment or systems, only the new equipment will carry this one-year warranty. An equipment list will be prepared as part of the Operation and Maintenance (O&M) Manual for each EEM at project closeout which will detail all warranty dates including any manufacturers' warranties which exceed this one-year period. This document will also include any specific service details which might be required to keep these warranties in force. The fields will be completed at close-out to provide a quick reference for the overall warranty information for the project. Additionally, RES will provide manufacturer's warranty certificates for equipment which is warranted beyond the one-year construction warranty period. Final versions of these documents will be provided at project closeout both as part of the individual O&M manuals and as an insert to this document for a centralized record of warranty information.