



RFP #18PSX0104 ENERGY EFFICIENCY RETROFITS FOR EXISTING BUILDINGS

PREPARED FOR



DEPARTMENT OF
ADMINISTRATIVE SERVICES

PREPARED BY



“ABS helps customers increase energy efficiency, achieve sustainability, improve quality, reduce operating costs, and create a safer, more comfortable working and learning environment.”

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September 10, 2018

ATTN: Mr. Mark Carroza

Re: RFP #18PSX0104 Energy-Efficiency Retrofits and Programs for Existing Buildings

Mr. Carroza:

Automated Building Systems, Inc. (ABS) is a locally owned and operated company that has been in business for over 32 years and employs over a hundred residents of southern New England. We are the authorized Alerton representative for Connecticut, Massachusetts, and Rhode Island, as well as the authorized Blue Ridge Lighting Control System dealer for the same areas. At ABS, we are committed to saving our clients money through flexible and customizable solutions. We implement innovative building management, lighting control, and energy management systems that help public school clients to provide a safe and comfortable educational environment while remaining cost effective.

Listed below are our capabilities:

- ✓ Digital Lighting Controls
- ✓ Building Envelope Upgrades
- ✓ Lighting Design and Lighting Upgrades
- ✓ Energy Audits
- ✓ Design Build and Retrofit Mechanical System Improvements
- ✓ DDC Temperature Control Systems
- ✓ Construction Management Services
- ✓ Domestic Hot Water System Design
- ✓ 24/7 Emergency Repair Response
- ✓ Commissioning and Retro-Commissioning Services
- ✓ Preventative Maintenance Programs
- ✓ Monitoring Services
- ✓ Systems Integration
- ✓ Energy Dashboard Services
- ✓ Measurement and Verification
- ✓ Energy Solutions Services
- ✓ Cogeneration Systems (PPA option for your consideration)
- ✓ Solar Installations – PV and Hot Water Systems
- ✓ Steam Trap Replacement

ABS is ready to accept the terms, conditions, and requirements contained in your Request for Proposal Document #18PSX0104. Set out in the following pages are a brief discussion of our background, experience, and ability to perform this contract in accordance with the issued Scope of Services Document.

Sincerely,

Greg Canna
Vice President
Automated Building Systems, Inc.

1.0 QUALIFICATIONS AND CAPABILITY

Automated Building Systems, Inc. (ABS) was founded in 1986 to provide the best service, support, and products in the industry. Today, ABS has over 100 employees in two offices servicing all of New England.

- **Type of Firm:** ABS is an energy management system company. We use Alerton controls to automate and save building's energy. While doing this, we don't try to force your project to match our objectives; instead, we find out what your vision is and shape our solutions to fit your needs. We ensure everything is clear from the start and that the design will work the way you need. We listen to you, understand what you want, and then give you the tools, training and support to sustain your building. The nature of ABS itself is "design-build." We design and engineer our own installations. We have a dedicated service department, pre-project support and our own project managers that work with you and your team. Our in-house installation and service professionals include programmers and engineers as well as CEM and LEED certified staff. The quality of their talent, dedication, knowledge and commitment remains unmatched in the industry.
- **Number of Years in the Energy Business:** 32 Years.
- **Number and Value of Similar Contracts:** ABS has over 2,000 installations throughout Connecticut. We have performed over 400 energy projects with utility incentives ranging from \$10,000 to \$2,000,000.
- **Number of full time personnel:** ABS has a total of 103 employees. I have listed some below.
 - (15) Sales engineers
 - (2) Certified Energy Managers (CEM)
 - (2) Lighting auditors
 - (8) Project managers
 - (7) Engineers
 - (13) Programmers
 - (8) Service Technicians
 - (29) Licensed electricians
 - (4) Licensed Mechanics
- **Accreditation or other Pre-qualifiers:** ABS has the following on staff: Mechanical Engineers, Certified Energy Managers (CEM), Licensed Electricians, Licensed Mechanics

2.0 EXPERIENCE

Reference Project #1 Newtown Public Schools

- a. Newtown Schools
- b. Middle and Middle Gate Schools located in Newtown Ct.
- c. Project size \$1,694,368

ECM 1 –Middle School Lighting Replacement of Classrooms, Library, Offices and Hallways

A detailed lighting survey was completed on the school to determine the energy efficiency and lighting improvement opportunities that exist throughout the building. The building already has lighting with some four-foot older version T8 lamps and electronic ballasts along with some two-foot T8 U tube fixtures. There also some recess can compact florescent fixtures.

Propose to retrofit the four-foot florescent fixtures with four-foot, new LED retrofit kits. The two-foot U tube fixtures will be retrofitted with a new LED kit. Existing cans will be retrofitted to Led lamps.

ECM 2 – Middle School Boiler Replacement and Additional Boiler Controls

Two existing H.B. Smith 450 oil-fired draft hot water boilers, are 13 section boilers rated at 2,049,700 btus (2050 MBH). Install two Lochinvar Sync SBN1500 rated at 1500 mbtu each. Lochinvars are gas fired. Replace circulating pumps and add VFDs.

The existing Alerton BMS will control the new boilers and pumps with VFDs. Boilers will have occupied and unoccupied temperature settings, lead/lag; outdoor reset will control the boilers hot water delivery and modulate the new VFDs to maximize energy savings.

ECM 3 – Middle School Domestic Hot Water Heater Replacement

Replace existing Bock oil-fired Domestic Hot Water heater with new gas-fired AO Smith BTH-150 High Efficiency condensing hot water boiler.

ECM 4 – Middle School Hot Water Pump Replacement and Addition of VFDs

Replace existing two hot water circulating pumps consisting of one US Motor 10 hp and one Marathon 7.5 hp motor. Both pumps will be replaced with new high efficiency motors, pumps and VFDs. BMS will be connected and will modulate pump speeds based on loads. Pumps will be controlled lead lag and status. The two new VFDs will be Yaskawa Z1000 Series with new Baldor Motors.

ECM 1 – Middle Gate School Lighting Replacement of 31 Classrooms, Library, Offices and Hallways

A detailed lighting survey was completed on the school to determine the energy efficiency and lighting improvement opportunities that exist throughout the building. The building already has lighting with some four-foot older version T8 lamps and electronic ballasts along with some two-foot T8 U tube fixtures. There also some recess can compact florescent fixtures.

fixtures. The lighting is controlled by a standard on/off switch with some office spaces controlled by wall type motion sensors.

Propose to retrofit the four-foot florescent fixtures with four-foot, three lamp 25-watt T8 lamps with low power ballast. The two-foot U tube fixtures will be retrofitted with a two-foot retrofit kit to convert fixtures to two-foot lamps with a specular reflector and new two-foot ballasts. Existing cans will be retrofitted to Led lamps.

ECM 2 – Middle Gate School Install New Gas Condensing Boilers and Circulating Pumps with BMS added Points

The building is heated by (4) oil-fired H.B. Smith steam boilers. Two of the steam are decommissioned (boilers 1 and 2.) The remaining HB Smith steam boilers are rated at (4500 MBH #3 boiler) and (3400 MBh #4 boiler).

The front section (main office and classrooms) uses steam to hot water converter with hot water delivery. This section was converted into (2) zones with circulating pumps (lead/Lag).

The lower section (classroom, kitchen, cafeteria and gym) is heated directly with a two-pipe steam system heated by the upper boilers. Existing steam delivery goes from the front section of the building to the lower section, over 400 feet away.

New Gas line was installed to provide the proper amount of gas needed in order to support new gas boilers and DHW. The town of Newtown dug the trench and the gas company provide the new gas line to the school at no charge.

Install with new Viessman Vitodens gas condensing boilers 300-V rated at 500 MMBtu each, new circulating pump motors and VFDs in new boiler room located below the kitchen basement which will eliminate the 400 feet of delivery piping from the upper boiler room. The steam delivery system will be converted to hot water and running new hot water return piping back to the new boilers. Upper School and Lower School have similar loads, therefore both boiler rooms will utilize the following equipment:

- (5) 500,000 BTU Viessmann high efficient gas condensing boilers mounted on a prefabricated rack, providing redundancy and modulation

- (2) Grundfos high efficient 7.5 hp pumps for each heating loop.

Boilers will have occupied and unoccupied temperature settings, lead/lag, outdoor reset will control the boilers hot water delivery and modulate the new VFDs to maximize energy savings.

Main Boiler Room: Proposed to install five Viessman Vitodens boilers 300-V rated at 500 MMBtu each. During temperature of below 10-15 deg F four boilers would be required maintain temperature.

Wing C and D (Steam Section): Proposed to add five more Viessman Vitodens boilers 300-V rated at 500 MMBtu each.

ECM 3 – Middle Gate School Domestic Hot Water Heater Replacement

Front Section: Existing two Domestic Hot Water heaters are Bock 75 Gallon tanks with EZ-1 Carlin oil fired boiler rated .5 gallon to 1.65 gallon capacity. Both existing DHW have large 2000 gallon storage tanks.

The school at one time had regular use of showers. Showers are no longer being used and DHW is used for cleaning and washing hands. The school is not used as a shelter so the 500 gallon storage tanks are no longer necessary. Replace existing with new Viessman Vitocell 300-V EVI-450 stainless steel indirect fired water heaters.

ECM 4 – Middle Gate School Hot Water Pump Replacement and Addition of VFDs

Replace existing four 7.5HP and two 5HP hot water circulating pumps with new high efficiency motors and VFDs. BMS will be connected and will modulate pump speeds based on loads. Pumps will be controlled lead lag and status.

ECM 5 – Middle Gate School BMS Upgrades

The existing EMS will be upgraded with a new system with enhanced capabilities including schedule optimization, Demand Control Ventilation added to the four existing RTUs and control points for forty exhaust fans.

d. List of Energy Conservation Measures (ECM)

| Newtown Middle School | | Gas | \$1.12 | | | | | | |
|-----------------------|--|--------------------|---------------------|-----------------|---------------|------------------|----------------|------------------|------------------|
| | | Oil | \$2.99 | | | | | | |
| | | Electric | \$0.165 | | | | | | |
| ECM# | PROPOSED MEASURES | Installed Cost | Electricity Savings | | Oil Savings | | Natural Gas | | Total |
| | | | kWh/yr. | \$/yr. | Gal | \$/yr. | CCF | \$/yr. | Saved |
| ECM-1 | Lighting Provide by Advance Energy Management | | | | | | | | |
| ECM-2 | BMS added Points | \$253,200 | 21,431 | \$3,527 | | | 3,091 | \$3,462 | \$6,988 |
| ECM-3 | Convert from Oil to Gas Heating Condensing Hot Water Area (Two Boiler Rooms) New Plus Delivery | \$1,004,593 | | | 72,059 | \$215,456 | (62,005) | -\$69,446 | \$146,010 |
| ECM-4 | Install new gas hot water heater both main and Kitchen | \$26,000 | | | 3,551 | \$10,618 | (1,189) | -\$1,332 | \$9,286 |
| ECM-5 | Vending Machine | \$575 | 1,600 | \$263 | | | | | \$263 |
| ECM-6 | Install New Pump Motors with VFDs (Savings Calculations by others) | \$19,000 | 46,626 | \$7,673 | | | | | \$7,673 |
| TOTALS | | \$1,303,368 | 69,657 | \$11,462 | 75,610 | \$226,073 | -60,104 | -\$67,316 | \$170,220 |

| Newtown Middle Gate School | | Gas | \$1.25 | | | | | | | | | |
|----------------------------|--|------------------|---------------------|---------------|-----------------|---------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|
| | | Oil | \$2.00 | | | | | | | | | |
| | | Electric | \$0.188 | | | | | | | | | |
| ECM# | PROPOSED MEASURES | Installed Cost | Electricity Savings | | | Oil Savings | | Natural Gas | | Total | Estimated | Net |
| | | | kW | kWh/yr. | \$/yr. | Gal | \$/yr. | CCF | \$/yr. | Savings | Incentive | Cost |
| ECM-1 | Lighting (700 Fixture) LED Retrofits | \$140,275 | 34.4 | 72,024 | \$13,561 | | | | | \$13,561 | \$21,607 | \$118,668 |
| ECM-2 | Boiler Replacement (Oil to Gas, Increase Efficiency) Added Boiler Controls | \$244,650 | | | | 23,076 | \$46,153 | (24,429) | -\$30,537 | \$15,616 | \$1,684 | \$242,966 |
| ECM-3 | Domestic Hot Water (Oil to Gas, Increase Efficiency) | \$4,500 | | | | 4,226 | \$8,451 | (4,799) | -\$5,998 | \$2,453 | \$247 | \$4,253 |
| ECM-4 | Install New Motors, Pumps and VFDs on Heating Circulating Pumps | \$1,850 | | 14,592 | \$2,748 | | | | | \$2,748 | \$555 | \$2,193 |
| TOTALS | | \$391,275 | 34.4 | 86,616 | \$16,308 | 27,302 | \$54,604 | -\$29,228 | -\$36,535 | \$34,377 | \$24,093 | \$368,080 |

e. Savings Verification Methodologies

ABS is in the process of providing to the customer before and after energy cost for both electric and natural gas. Middle School energy savings was calculated at \$190,575 heating and hot water savings and \$23,922 savings for electricity. Presently get utility history for the Middle Gate School.

As part of energy savings projects, energy utility usage is compared using existing and proposed after ECM has been installed. This savings is more realistic and not over estimated savings.

ABS has also used trending of Alerton controls to read gas and electric meters to evaluate before and after energy savings along with using ABS dash board data.

f. Reference: Gino Faiella, Facility Director, 203-426-7614

Reference Project #2 Darien Public Schools

- a. Darien Schools:
- b. Hindley and Royle Schools located in Darien CT.
- c. Project size \$81,845

ECM 1 – Hindley School lighting Retrofit

Hallway, Gymnasium and Cafeteria, replaced 150 one, two, three and four lamp T8 fluorescent fixtures, incandescent lamps and CFL lamps to 167 new LED fixtures. Seventeen fixtures were added due to poor light levels in a few areas.

ECM 1 – Royle School lighting Retrofit

Royle School: Hallway, Gymnasium and Cafeteria, replace 133 two and three lamp T8s and CLFs with new LED fixtures.

d. List of Energy Conservation Measures (ECM)

| | | Electric Cost | \$0.18 | | | | | |
|-------|--------------------------------------|----------------|-----------------|------------------|------------------------|----------|-----------------|------------------|
| ECM | Hindley School Description | Installed Cost | Est kWh Savings | Est Cost Savings | Est Utility Incentives | Net Cost | O and M Savings | Payback With O&M |
| ECM-1 | New LEDs for Hall, Gym and Cafeteria | \$42,105 | 19,529 | \$3,515 | \$5,859 | \$36,246 | \$1,200 | 7.69 |

| Royal Elementary School | | | | | | | | | |
|-------------------------|------------------------|----------------|------------|-------------|---------------|-------------|---------------------|--------------------|--------------------|
| ECM# | PROPOSED MEASURES | Installed Cost | kW Savings | kWh Savings | Savings \$/yr | O&M Savings | Estimated Incentive | Net Estimated Cost | Payback Yrs W/ O&M |
| ECM-1 | Hallway LED Lighting | \$21,898 | 2.1 | 3,591 | \$646 | \$800 | \$1,257 | \$20,641 | 14.3 |
| ECM-2 | Gymnasium LED Lighting | \$7,882 | 0.5 | 895 | \$161 | \$350 | \$313 | \$7,569 | 14.8 |
| ECM-3 | Cafeteria LED Lighting | \$9,915 | 1.4 | 2,366 | \$426 | \$700 | \$828 | \$9,087 | 8.1 |
| TOTALS | | \$39,695 | 4.1 | 6,851 | \$1,233 | \$1,850 | \$2,398 | \$37,297 | 12.1 |

e. Savings Verification Methodologies

ABS has just completed installations on both of these schools. ABS will be using the past electric history for both of these schools and will revisit the electrical uses and compare the savings.

f. Reference: Michael Lynch, Director of Facilities, 203-656-7418

Reference Project #3 City of Norwich

- a. Norwich Public Garage:
- b. Norwich Public Garage located in Norwich CT.
- c. Project size \$49,940

ECM 1 – Norwich Garage lighting Retrofit

Replaced 78 existing two and three lamp fluorescent and HPS fixtures with 78 new LED fixtures with added photo cells on the perimeter of the garage where they are exposed to day light.

d. List of Energy Conservation Measures (ECM)

| | | Electric Cost | \$0.18 | | | | | |
|-------|--|----------------|-----------------|------------------|------------------------|----------|-----------------|------------------|
| ECM | Norwich Garage Description | Installed Cost | Est kWh Savings | Est Cost Savings | Est Utility Incentives | Net Cost | O and M Savings | Payback With O&M |
| ECM-1 | New LED Lighting for Garage With Sensors | \$49,940 | 45,897 | \$8,261 | \$8,290 | \$41,650 | \$1,560 | 4.24 |

e. Savings Verification Methodologies

ABS will be reviewing before and after revisit the electrical uses and compare the savings.

f. Reference: John Johnson, Facilities and Grounds Manager, 860-823-3728

3.0 PRICING AND FEES

Lighting:

Below is an example of our lighting upgrades. The Fixture cost has a 25% markup on it and our labor cost is \$108.00 an hour. The labor amount is variable and dependent on the site conditions. There is no additional maintenance or monitoring costs associated with the lighting upgrade.

ABS will work directly with the utilities to get all incentives and rebates offered. ABS will maximize the incentives based on multiple energy improvements to take advantage of the comprehensive bonus incentive programs offered by the utility company.

| Sample Lights | | Material Overhead and Profit | | 25.00% | | Electrical Labor Hourly Rate Prevailing Wage | | \$108.00 | | | | | | | |
|---------------------|--|------------------------------|--------------------------------|----------------------|-------------------|--|---------------------------|--------------------|---------------------------|-------------------------|-------------|------------------|--------------------------|--|--|
| Area Description | Description Before | Watts/ Fixture Before | Description After | Watts/ Fixture After | Material Raw Cost | Material Overhead and Profit | Total Material Sell Price | Number of fixtures | Total Material Sell Price | Labor Hours per fixture | Total Hours | Total labor Cost | Total Project Sell price | | |
| Damp Area Use | 1x4 VP 3L 32 Watt | 90 | DAYB-DWPE43L840-4-UNV | 43 | \$201 | \$50 | \$251 | 50 | \$12,562.50 | 0.75 | 38 | \$4,050 | \$16,613 | | |
| Class Room / Office | 2x4 3L 32W | 90 | DAYB-516476 | 37 | \$95 | \$24 | \$119 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Class Room / Office | 2x2 2L 32 Watt | 60 | DAYB-515940 | 25 | \$81 | \$20 | \$101 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Class Room / Office | 2x4 3L 32W | 90 | DAYS-2EVG48L840-4-D-UNV-DIM | 48 | \$144 | \$36 | \$180 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Class Room / Office | 2x2 2L 32 Watt | 60 | DAYB-FBX16L140-UNV-M-LCA | 40 | \$322 | \$81 | \$403 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Gym Fixture | Replace HID or T5 Wattage range 250-400 Watt | 300 | DAYB-FBX16L140-UNV-M-LCA | 125 | \$320 | \$80 | \$400 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Area Lighting | 250 - 400 HID | 300 | EVER-EL=LED-TS12-300-UL-XX-XXX | 135 | \$529 | \$132 | \$661 | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Wall Pack | 100 - 150 HID | 125 | TRAC-TLED-NFM-42-V5-5K | 42 | \$265 | \$66 | \$331 | TBD | TBD | TBD | TBD | TBD | TBD | | |

Alerton Energy Management System Pricing:

The next two pages show some of the labor and material needed and used in an Alerton Building Control system. The Labor costs are fixed amounts shown below. The Alerton material has a multiplier of .42 on the list price. The other outside material has 15% markup added to the costs. All of the material also has 5% added for shipping cost. The labor amount is variable and dependent on the site conditions. The subcontracted items have a 5% markup for labor burden and another 15% for the Markup of the subcontractor.

There is no additional maintenance or monitoring costs associated with the building management system unless the owner requests this service.

ABS will work directly with the utilities to get all incentives and rebates offered. ABS will maximize the incentives based on multiple energy improvements to take advantage of the comprehensive bonus incentive programs offered by the utility company.

Alerton Material

Project Name:

| <u>Description</u> | <u>Part #</u> | <u>Qty</u> | <u>List Price</u> | <u>Price</u> | <u>Total</u> |
|-----------------------------------|----------------------|-------------------|--------------------------|---------------------|---------------------|
| Material Multiplier: | | 0.42 | | | |
| Alerton Compass software | Compass-1-MD | 1 | \$ 20,633.00 | \$8,665.86 | \$ 8,665.86 |
| Alerton Global Controller | ACM | 1 | \$ 4,820.00 | \$2,024.40 | \$ 2,024.40 |
| Alerton Global Controller Battery | ACM-BATT | 1 | \$ 1,017.00 | \$427.14 | \$ 427.14 |
| Alerton Global Controller License | ACM128 | 1 | \$ 5,154.00 | \$2,164.68 | \$ 2,164.68 |
| Alerton Controller | VLC-1688 | 1 | \$ 4,304.00 | \$1,807.68 | \$ 1,807.68 |
| Alerton Controller | VLC-1188 | 1 | \$ 2,348.00 | \$986.16 | \$ 986.16 |
| Alerton Controller | VLC-853 | 1 | \$ 1,520.00 | \$638.40 | \$ 638.40 |
| Alerton Controller | VLC-550 | 1 | \$ 827.00 | \$347.34 | \$ 347.34 |
| Alerton Controller | VLC-444 | 1 | \$ 885.00 | \$371.70 | \$ 371.70 |
| Alerton SpaceTemp/Hum/CO2 Sensor | MS4-THC | 1 | \$ 1,366.00 | \$573.72 | \$ 573.72 |
| Alerton VAV Controller | VAV-SD2A | 1 | \$ 976.00 | \$409.92 | \$ 409.92 |
| Alerton SpaceTemp/Hum Sensor | MS4-TH | 1 | \$ 369.00 | \$154.98 | \$ 154.98 |
| | | | \$ - | \$0.00 | \$ - |
| | | | \$ - | \$0.00 | \$ - |
| | | | \$ - | \$0.00 | \$ - |
| | | | \$ - | \$0.00 | \$ - |
| | | | \$ - | \$0.00 | \$ - |
| | | | Total | \$ 18,571.98 | \$ 18,571.98 |

Outside Material

| <u>Description</u> | <u>Part #</u> | <u>Qty</u> | <u>Cost</u> | <u>Total</u> |
|------------------------------------|----------------------|-------------------|--------------------|---------------------|
| Radation Valve 1/2 Inch 2-position | | 1 | \$ 74.00 | \$ 74.00 |
| VAV Box 1/2 Inch Mod. Valve | | 1 | \$ 134.00 | \$ 134.00 |
| VAV Actuator | | 1 | \$ 74.00 | \$ 74.00 |
| Actuator Large | | 1 | \$ 216.00 | \$ 216.00 |
| Humidity Sensor 3% (Duct Mounted) | | 1 | \$ 121.00 | \$ 121.00 |
| Low Limit Thermostat | | 1 | \$ 121.00 | \$ 121.00 |
| Duct Temp Sensor | | 1 | \$ 36.00 | \$ 36.00 |
| Duct CO2 Sensor | | 1 | \$ 185.00 | \$ 185.00 |
| Relay | | 1 | \$ 18.00 | \$ 18.00 |
| 100" 3/4 EMT | | 1 | \$ 176.00 | \$ 176.00 |
| 3/4 EMT connections | | 1 | \$ 17.00 | \$ 17.00 |
| 3/4 EMT hole clips | | 1 | \$ 11.00 | \$ 11.00 |
| Box of 18/4 gauge comm wire | | 1 | \$ 264.00 | \$ 264.00 |
| Bell Box | | 1 | \$ 17.00 | \$ 17.00 |
| | | | Total | \$ 1,464.00 |

ABS Pricing Summary

Project Name:

Scope of work:

| Labor | | Hours | \$/Hr. | Cost |
|-------------------------------|--------------------------|--------------|---------------|------------------|
| Design Engineering | | 1.0 | \$ 122.00 | \$ 122.00 |
| ABS Alerton Software Engineer | | 1.0 | \$ 126.00 | \$ 126.00 |
| ABS Field Technician | | 1.0 | \$ 125.00 | \$ 125.00 |
| ABS Electrician | | 1.0 | \$ 108.00 | \$ 108.00 |
| On Site Coordinator | | 1.0 | \$ 128.00 | \$ 128.00 |
| Lighting Auditor | | 1.0 | \$ 108.00 | \$ 108.00 |
| Energy Engineer | | 1.0 | \$ 135.00 | \$ 135.00 |
| Total Field Labor | | | | \$ 852.00 |
| Material | | | | |
| Alerton Materials | Net Price, from Page 2 | | \$ | 18,571.98 |
| Outside Purchased Materials | Cost, from Page 2 | | \$ | 1,464.00 |
| | Freight | 5% | \$ | 1,001.80 |
| | Taxes | 0% | \$ | - |
| | Markup, Outside Material | 20% | \$ 1,464.00 | \$ 292.80 |
| Total Material | | | | \$ 21,330.58 |
| Subcontract | | | | |
| | | | | Cost |
| Subcontractor (Balancer) | | | \$ | - |
| Subcontractor (Mechanical) | | | \$ | - |
| Subcontractor | | | \$ | - |
| | Subtotal | | \$ | - |
| | Labor burden | 5% | \$ | - |
| | Markup | 15% | \$ | - |
| Total Subcontract | | | | \$ - |
| Total | | | \$ | 22,182.58 |