Benefits of EME

LIGHTING/REFRIGERATION

- No Upfront Capital Needed; no third party bank loan or lease needed
- No liens on the property
- Preserve Capital Dollars for other projects needed on site
- Power or Gas Commodity contract with CNE provides the funding vehicle
- Projects can be completed in Phases or before Supply contract begins
- Construction Management by Constellation included
- 1-year Workmanship warranty on the installation materials
- Warranty from Manufacturer on installed material
- Rebates and other incentives to reduce project cost are considered
- Upgrade site conditions
- *Can* Provide positive cash flows over 5 and 10 year period

Constellation

Project Highlights & Scope

1. Annual kWh Savings: 159,871
2. Gross Annual Savings: $26,966/year
3. Rebates/Incentives Paid to the customer or Channel Partner to lower total funded project cost: $28,884
4. Title transfers to customer as soon as the project is installed
5. No Collateral Required
6. 1 year workmanship warranty on entire project, including installation and materials
7. All warranties from Manufacturers are transferred to the customer
8. Constellation can provide Emissions Impact equivalents, if needed for Sustainability Goals.
9. Interior and Exterior Lighting upgrade
10. Refrigeration upgrade with controls and monitoring, 6 HE Motors

Project Assumptions/Points of Interest

- Mt. Everett School has an existing commodity contract with Constellation from July 2018 – July 2021 at a rate of **$0.08360/kWh** with 7 accounts under contract
- We will add the EME project costs to the existing commodity contract, which will have a **Dec 2018 Contract start date**
- The EME project will fund the scope of work as submitted by Horizon Solutions, and approved by the Southern Berkshire Regional School District
- Rebates will go to Horizon Solutions to lower the Constellation funded project cost
- Constellation will pay Horizon Solutions directly for the project
- The monthly EME payment will show as a separate line item on the Constellation commodity bill
- The sooner the project is contracted and completed, the larger the deferred start savings will be for the Southern Berkshire Regional School District.
- Credit is pending for the project but until usage comes back but shouldn't be a problem
- Typical Constellation interest rate is between 5% - 7%, based on credit and term
- Constellation uses its own internal working capital, so no outside lenders are involved and there isn't a credit request that would affect your credit score
- There are 7 accounts associated with the Southern Berkshire Regional School District on this contract

EME Metrics & Indicative Commodity Rates

EME Metrics

- Total project cost - $120,509
- Estimated Rebate or Incentive - $28,884
- Project cost requiring funding - $91,625
  - 48 (Dec 2018 – Dec 2022) Month Funded project cost (inclusive of CNE fees and finance charges) - ~~$114,358~~ $110,864
  - Monthly EME Price - ~~$2,382~~/month for 48 months
    $2254.31

Indicative Commodity Rates

- Fixed Price Contract Extension (7 accounts) July 2021 – Dec 2022 - **$0. 08628/kWh**
- Note that the existing contract has consolidated billing. We will have to change that to dual billing if they decide to move forward with the EME option.

— LIGHTING —

Equipment List

Proposed Lighting Retrofit Description	Qty
FSC NEW FSC 2' LED High Bay, 17,685 Lumens, 135 Watts	49
Sylvania NEW Sylvania Wall Pack, 5,600 Lumens, 49 Watts W/PC	45
Lithonia NEW 21 Watt LED Flood, 3,058 Lumens	19
Sylvania NEW Sylvania Pole Light, 8,100 Lumens, 70 Watts W/OCC/DIM	52
FSC High Bay Occ/Dim Remote Controlled	49
Fixture has sensor already in cost, 38% Savings	52
	266

Proposed Mechanical Installation Measures	Qty
3TZ: 3 zone(s) of Energy-saving CoolTrol refrigeration controls to optimize and manage temperature, defrost and evaporator fans. 6ECM: Replace 6 existing shaded-pole motors with 6 high-efficiency EC motors in evaporators. 1DH2FH: Dewpoint-based pulse control for anti-sweat door heaters FALSEGW: RSM Gateway for Monitoring Based Commissioning & remote optimization. 2-SDK: 2 Smart Defrost Kit(s) to prevent unnecessary electric defrost cycles.	1
	1

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HORIZON SOLUTIONS

June 27th, 2018

Jeremy Wells

Mount Everett School

RE: Lighting Upgrade to Mount Everett School in Sheffield MA

Dear Jeremy,

Horizon Solutions is pleased to provide a lighting upgrade proposal that will both save a substantial amount of energy but also improve the quality of lighting for students and staff.

Project Cost $	Project Incentives	Project Net Cost	kWh Saved	Electric Savings	Maintenance Savings	Simple Payback (Years)
$ 99,174	$ 25,367	$ 73,808	84,556	$ 15,201	$ 1,084	4.5

Tau estimate prior to National Grid providing estimate of 26,961 annually

NOTE: Breakdown between interior lighting upgrade and exterior lighting upgrade is as follows:

- Interior upgrade $30,625
- Exterior upgrade $68,549

Scope of work

- Labor and materials to replace all exterior lighting with LED equivalents. There will be 45 wall packs replaced, 19 flood lights, and 52 pole lights. Pole lights will have occupancy based high/low controls.
- Labor and Materials to replace lighting in Gym with LED high bays. There will be 49 high bays replaced. Incorrect existing mounting will be repaired.
- Assumes work can be completed during normal business hours, prevailing wages will be used.
- Assumes no existing code violations
- Horizon will remove and properly dispose of all fluorescent fixtures, lamps, and ballasts
- Horizon will pull all necessary electrical permits but assumes fee will be waived
- Horizon will warranty all work for 1 year (materials and labor) and an additional 4 years on materials

If you have any questions please contact me at any time my cell # is 518-610-2068.

Thank you

Bill Amuso

Horizon Solutions LLC
701 Kelly Way, Holyoke, MA 01040 • Phone: (413) 533-3933 • Fax: (413) 533-5618
www.HS-E.com

NRM

Mount Everett Regional Schools

491 Berkshire School Road
Sheffield, MA 01257

Utility: National Grid Measures	Annual KWH savings	Annual Dollar Savings	Project Cost	Utility Incentive*	Net Cost	Payback (yrs.)
3TC1DH2FH6ECM2SDKRSM	12,031	$1,925.00	$16,030.00	$3,609.30	$12,420.70	6.45

Note: The National Grid incentive shown is an estimate based on $0.30 / kwh removed.

Measure Description

TC: Evaporator fan control. Cycling of evaporator fan motors when thermostat is satisfied / compressor off-line, fans run entire time compressor(s) on-line.

DH: Cooler door heater control. Door heater circuit(s) controlled as a function of relative humidity, monitored by humidistat located at door(s).

FH: Freezer door heater control. Door heater circuit(s) controlled as a function of relative humidity, monitored by humidistat located at door(s).

ECM: Evaporator fan motor replacement. Replacement of cooler/freezer evaporator fan motor

SDK: Smart Defrost Control. Control of defrost as a function of the temperature of the evaporator coil as opposed to standard time clock defrost periods.

RSM: Remote Site Manager. Remote access / control (via Smart Phone, Laptop, PC) to also include alarm protection for walk-in Cooler(s) / Freezer(s), as well as, temperature profiling and diagnostics of associated refrigeration equipment.

ENERGY SAVINGS PROPOSAL - HORIZON SOLUTIONS, NATIONAL RESOURCE MANAGEMENT, INC., NATIONAL GRID

	------- BASED ON ENERGY SAVINGS ONLY ------- - HORIZON SOLUTIONS ESTIMATE					-- WITH ADD'L MAINTENANCE SAVINGS ---		
	Total Cost	Less National Grid Incentive	Net Cost	ANNUAL SAVINGS	PAYBACK PERIOD in YEARS	ESTIMATED REDUCTION IN MAINTENANCE COSTS	TOTAL ESTIMATED ANNUAL SAVINGS	PAYBACK PERIOD in YEARS
LIGHTING PROJECT	$ 99,174	$ (25,367)	$ 73,807	$ 15,201	4.86	$ 1,081	$ 16,282	4.5
REFRIGERATON/FREEZER PROJECT	$ 16,030	$ (3,609)	$ 12,421	$ 1,925	6.45			
	$ 115,204	$ (28,976)	$ 86,228	$ 17,126	5.03			
				$ 1,427 per month				

	------- BASED ON ENERGY SAVINGS ONLY ------- NATIONAL GRID ESTIMATES					-- WITH ADD'L MAINTENANCE SAVINGS ---		
	Total Cost	Less National Grid Incentive	Net Cost	ANNUAL SAVINGS	PAYBACK PERIOD in YEARS	ESTIMATED REDUCTION IN MAINTENANCE COSTS	TOTAL ESTIMATED ANNUAL SAVINGS	PAYBACK PERIOD in YEARS
LIGHTING PROJECT	$ 99,174	$ (25,367)	$ 73,807	$ 25,041	2.95	$ 1,081	$ 26,122	2.8
REFRIGERATON/FREEZER PROJECT	$ 16,030	$ (3,609)	$ 12,421	$ 1,925	6.45			
	$ 115,204	$ (28,976)	$ 86,228	$ 26,966	3.20			
				$ 2,247 per month				

MONTHLY PAYMENT TO CONSTELLATION	$ 2,382.46		
	48	payments	
	$ 114,358	total cost	6.68
	$ 28,130	interest cost	*NEED TO LOOK AT OTHER FINANCING OPTIONS.*

- updated -
2254.31
× 48 payments
$ 108,207 total cost
$ 21,979 interest cost

NOTES:- LIGHTING WORK

Equipment has a lifespan of 20+ years
No upfront capital needed
Will provide positive cash flows after 48-month payback
Title transfers to SBRSD once project is installed
Includes labor and materials to replace all exterior lighting with LED equivalents
Includes labor and materials to replace lighting in Gym with LED high bays.
Flourescent fixtures, lamps and ballasts will be removed by Horizon (contractor)
Horizon will pull all necessary electrical permits (assumes permit fee will be waived, which is not necessarily the case)
All work is warranties for 1 year for materials and labor, with an addition 4 years warrantly on mateials.
Outdoor lights dim to 50% unless someone is in the area - light quickly to 100% when needed
3-4 weeks to get delivery of material
2-week (?) installation

NOTES: REFRIGERATION/FREEZER WORK

Equipment has a lifespan of 20+ years
Hosting fee of $300/year starts in year #2
24/7 service
Remote control access by National Resource Management, Inc. via laptop, smart phone, PC, including alarm protection for walk ins, temperature profiling, diagnosis of associated equipment
Evaporator fan control
Cooler door heater control - Dewpoint-based pulse control for anti-sweat door heaters
Freezer door heater control
Smart defrost control to prevent unnecessary electric defrost cycles