

TOWN OF HUDSON

Library Board of Trustees



194 Derry Road • Hudson, New Hampshire 03051 • Tel: 603-886-6030 • Fax: 603-816-4501

Hudson Library Board of Trustees Approved Public Meeting Minutes March 5, 2019

Present:

Trustee Robin Rodgers
Trustee Kara Roy
Trustee Linda Kipnes
Trustee Barbara Blue

Excused:

Trustee Donna Boucher
Linda Pilla, Director

Called To Order:

Trustee Rodgers called the meeting to order at 6:00 p.m. and Linda Pilla led the Pledge of Allegiance.

Public Input: Presentation of energy audit by Laurence Bleicher from Energy LB Resources LLC. See attached presentation.

Motion by Trustee Roy to update the public area lighting in the Rodgers Memorial Library to LED lighting, have the HVAC system serviced for better efficiency and allot \$1,000 for the removal and disposal of old lighting at a cost not to exceed \$27,080 with a rebate of approximately \$6,150 for a net cost of approximately \$20,930 to come from the TD Bank Building Fund ending 1182. Seconded by Trustee Blue. All in favor. Motion passed 4-0.

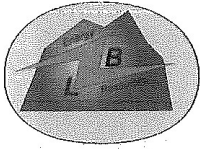
Trustee Kipnes to contact Laurence Bleicher to inform him of Board of Trustees' decision.

The Rodgers Memorial Library phone system was irreparably damaged during last week's wind storm that took out several transformers in the area. SCINetworks, who installed the library's last phone system, replaced the system with a new phone system at the library.

Motion by Trustee Kipnes to accept the replacement phone system installed by SCINetworks at a cost of \$8,161.45. Seconded by Trustee Roy. All in favor. Motion passed 4-0.

Adjourn: Meeting adjourned at 7:14 p.m.

Respectfully Submitted,
Terri Cicia, Administrative Assistant



ENERGY LB RESOURCES LLC
Optimize Your Energy



A Summary Quote Prepared For:

Linda Pilla
Director
Rodgers Library

pertaining to the proposed Energy Conservation Measures at

**Rodgers Memorial Library
Town of Hudson, NH
194 Derry St
Hudson, NH 03051**

Monday, February 25, 2019

Prepared By:
Energy LB Resources LLC
20A Northwest Blvd Box 279 Nashua, NH 03063
<http://www.energyLB.com>

(figures herein valid for 30 days)

***Energy LB Resources LLC is an Authorized Affiliate of
Energy Integrated Solutions, Inc***

Energy LB Resources LLC 20A Northwest Blvd Box 279 Nashua, NH 03063
ph: 603-275-7238 email: info@energylb.com web: www.energylb.com

Public Area Lighting

Executive Summary			
Total Project Cost *			
			\$26,080.00
Rebate Estimate **			
			\$6,150.00
Net Cost After Rebate			
			\$19,930.00
Financial Savings			
	<i>Lighting</i>	<i>\$272.00</i>	
	<i>HVAC</i>	<i>\$127.00</i>	
	<i>MRO</i>	<i>\$80.00</i>	
	<i>Total Monthly Savings - \$\$</i>		\$479.00
Nominal *** Payback [mos]			42

* Price point includes all Product, Shipping, Labor, Incidental materials. It does not include removal of replaced existing lighting products and associated materials - ballasts, wiring, etc.

** These estimates are gleaned from Eversource's published prescriptive lighting efficiency incentive program, through the NH Saves organization. Actual final figures are pending Eversource approval.

*** Nominal refers to immediately calculable and accountable dollar expenditures which will no longer be incurred at the Jewell Instruments facility: billed electricity savings, ballast and lamp replacement and maintenance cost, and the like. It does not take into account effects of additional operational and infrastructural benefits such as reduced amperage throughout distribution system, yielding lower temperatures, less loss, increased equipment life, etc. Nor does it take into account effects of rising and volatile electricity rates, inflation, and/or other financial parameters. These benefits only act to further enhance the effective ROI of the investment.

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Operational Greater Than 45 Hours Weekly Lighting

Executive Summary	
Total Project Cost *	\$23,880.00
Rebate Estimate **	\$6,710.00
Net Cost After Rebate	\$17,170.00
Financial Savings	
<i>Lighting</i>	<i>\$280.00</i>
<i>HVAC</i>	<i>\$127.00</i>
<i>MRO</i>	<i>\$80.00</i>
<i>Total Monthly Savings - \$\$</i>	<i>\$487.00</i>
Nominal *** Payback [mos]	35

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Entire Building Interior and Exterior

Executive Summary			
Total Project Cost *			
			31,280.00
Rebate Estimate **			
			\$7,270.00
Net Cost After Rebate			
			\$24,010.00
Financial Savings			
	<i>Lighting</i>	<i>\$305.00</i>	
	<i>HVAC</i>	<i>\$127.00</i>	
	<i>MRO</i>	<i>\$80.00</i>	
	<i>Total Monthly Savings - \$\$</i>		\$512.00
Nominal *** Payback [mos]			47

* Price point includes all Product, Shipping, Labor, Incidental materials. It does not include removal of replaced existing lighting products and associated materials - ballasts, wiring, etc.

** These estimates are gleaned from Eversource's published prescriptive lighting efficiency incentive program, through the NH Saves organization. Actual final figures are pending Eversource approval.

*** Nominal refers to immediately calculable and accountable dollar expenditures which will no longer be incurred at the Jewell Instruments facility: billed electricity savings, ballast and lamp replacement and maintenance cost, and the like. It does not take into account effects of additional operational and infrastructural benefits such as reduced amperage throughout distribution system, yielding lower temperatures, less loss, increased equipment life, etc. Nor does it take into account effects of rising and volatile electricity rates, inflation, and/or other financial parameters. These benefits only act to further enhance the effective ROI of the investment.

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Energy Conservation Measures to be Deployed

Lighting

Nearly all of the interior linear fluorescent, and compact fluorescent lamping will be retrofitted to LED solutions.

Linear 4' fluorescent form factor lighting will be retrofitted with LED strips, yielding wattage reductions, and thus immediate bottom line savings, of approximately 53%.

Linear 2' fluorescent troffer form factor lighting will be retrofitted with Integrated LED Panel troffers, yielding wattage reductions, and this savings, of approximately 35%.

Recessed Compact Fluorescent (CFL) lamps will be replaced with Integrated LED Recessed Downlighting lamps, fitted into the existing recessed ceiling downlight can housings. These are designed to provide uniformly defused wide angle light for indoor areas. The wattage reduction, and thus savings, is approximately 54%, or 62%, depending on whether the existing CFL lamp is 26w or 32w respectively.

Specialty lighting, such as the decorative dome chandeliers in some of the public areas will be similarly retrofitted with form fitting LED solutions, also yielding substantial reductions. Exterior flood lights and wall pack lamp units will be replaced with LED solutions as well. Details of each form factor presented in the Proposal treatment details.

Additionally, ballasts will be removed and replaced with specific LED drivers per the given form factor, lasting as long as the LED lamps. These retrofit kits come with a factory warranty of 10 years. Thus maintenance is virtually eliminated.

Currently installed exterior pole lights are a direct mounted box unit housing with a 150w Metal Halide Flood Lamp. These box units will be removed, and replaced with similarly direct mounted Area Light with an integrated panel of LEDs drawing 60w, a reduction of approximately 60%.

HVAC

Most of the Cooling or Split System Cooling/Heating Units will be treated with Frigitech refrigerant oil lubricant. Frigitech is a lubricant containing a specialized oil base with a number of specially developed additives. In multiple ways, these additives reduce corrosion and oil spoil in the coils, reduce friction and loss in compressor bearings and parts, and enhance thermal transfer increasing Cooling Capacity.

Developed specifically for sealed refrigerant Cooling/HVAC systems, Frigitech will lead to -

- * Increased Cooling Capacity and Thermal Exchange
- * Reduced Power Draw during operation
- * Lower Duty Cycles
- * Reduced Friction
- * Improved life of bearings, seals, and compressors

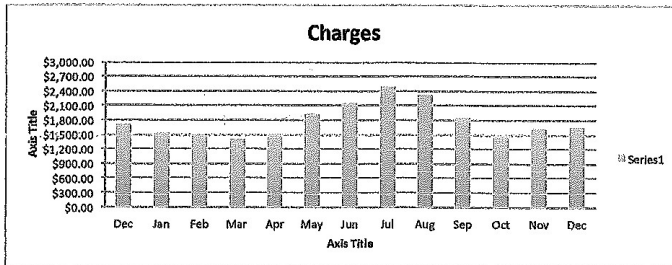
Depending on age and condition of the units, immediately observed energy use reductions are typically 10% - 24%. The savings estimates used in this Proposal adopted the most conservative savings projections of 10% to estimate overall HVAC savings and ROI.

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Electricity Consumption Informational Analysis Dec 2017 - December 2018

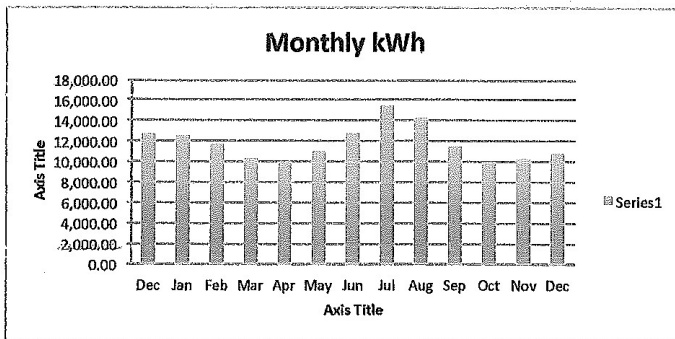
Monthly Electricity Charges \$\$

Mean Charge: \$1779.01



Monthly Electricity Consumption kWh

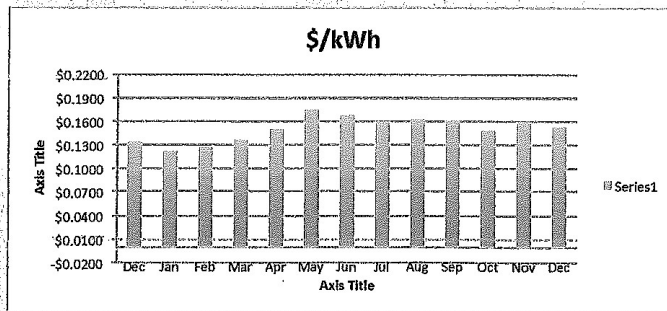
Mean Consumption: 11,810.86 kWh



Months of minimum consumption, and cost, are spring and autumn.

Monthly Electricity Aggregate Billed Cost per kWh

Mean Cost per kWh: \$0.152

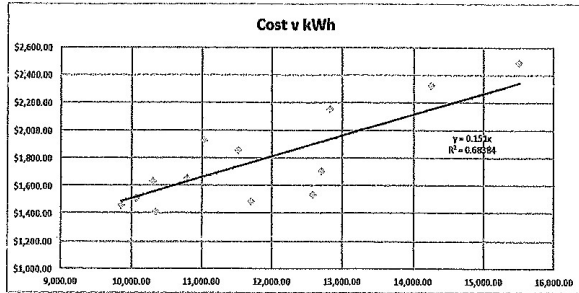


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Cost vs. Consumption Curve

With intercept set to 0, we observe the Regression Slope is 0.15, closely matching the Mean Cost per kWh of 0.152

The R² Value, or Coefficient of Determination, is ~0.68, suggesting that nearly 70% of the variation in the Monthly Costs is explained by the variation in kWh consumed. The Correlation itself, R, is ~0.83, a strong association between the two.



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