



**High Performance
Lighting Improvement Project
Prepared for**

Rye Elementary School & Rye Junior High School

Rye, New Hampshire

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**Carl Edin
March 25, 2019**





March 25, 2019

Mr. Tom Phau
Energy Committee
555 Washington Road
Rye, NH 03870

Re: 2019 High Performance Lighting Improvement Project

Dear Tom,

Enclosed you will find our turnkey energy saving lighting proposal.

By implementing these cost savings measures, Rye Elementary and Junior High School will achieve the following benefits:

- Reduced operating cost
- Reduced owning cost by removing standard CFL and T8 technology
- Utilization of high efficiency LED technology and controls
- Standardization of lighting components
- Improved light quality and quantity
- Eversource Incentive (pending approval)
- Excellent payback/ROI

We look forward to working with you to reach your goals of lighting improvements and energy conservation. After reviewing, please contact me at (207) 767-1313 or (207) 400-4767 to answer any questions.

Sincerely,

Carl Edin
Project Developer





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Benefits of a Turnkey Lighting Upgrade

- Complete cost analysis: room by room survey of existing system compared to a new proposed system, providing kW and kWh savings projections
- Product specification: high efficiency equipment being specified to reduce energy and maintenance cost
- Turnkey Installation/Project Management:
 - Providing detailed information of work to be completed
 - Overseeing of Installation with sub-contractors
 - Proper disposal of all waste-(hazardous and non-hazardous) with certificates of recycling provided
 - Weekly updates-communication with customer on progress of project completion
 - Pre and Post walkthrough's with Eversource for final approvals
- Customer benefits:
 - With the exception of scheduling, Rye Elementary & Junior High Schools are able to focus on other pressing matters.
 - Cost savings will be achieved in a much quicker time frame

Warranty information

| | |
|-------------------|-----------|
| Ballast | 5 years |
| LED Lamps | 3-5 years |
| LED Fixtures/Kits | 5 years |
| Controls | 5 years |
| Labor | 90 days |
| Labor Workmanship | 1 year |

EMC's Assurance

As a "turnkey" Energy Service Company, (ESCO) EMC will design and project manage the installation of proven energy saving technologies as well as provide periodic follow up to assure complete customer satisfaction.





Environmental Impact – Going Green March 2019

The **100,812 kWh** saved annually by this project equates to the following positive environmental impacts:

- **9 households** is the average number of houses that can now be powered from this project. The average U.S. household consumes 11,280 kWh annually.
- **6,956 fewer gallons of oil** need to be imported, reducing our dependence on foreign oil.
- **62 tons of CO₂**
Carbon Dioxide is considered a greenhouse gas and is a major contributor to global warming.
- **1,220 lbs. of SO₂**
Sulfur Dioxide- some major health effects associated with this pollutant are: asthma, respiratory illness and aggravation of existing cardiovascular disease.
- **621 lbs. of Nox**
Nitrogen Oxides are considered contributors to acid rain and ground level ozone (or smog).
- **42 lbs. of visible particulate**



Supporting Information

Room by Room Savings Analysis

Rye Elementary

Rye Junior High School





Rye Elementary School
Room by Room Savings Analysis



| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
|------|----------------------------------|---------------------------|-------|------------|------------|-----|---------|---------|----------|------------|----------|---------|----------|------------|----------|----------|----------------|
| 001 | 1FL - Foyer | T2L4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.04 | 20.00 | 40.00 | 124.80 | 156.00 | 0.00 |
| 002 | 1FL - Boiler Room | S4L4-8F-T8/LED4L4-10-NL | 4 | 10/52 | 520 | | | 0.36 | 89.00 | 356.00 | 185.12 | 0.16 | 40.00 | 160.00 | 83.20 | 101.92 | 0.00 |
| 003 | 1FL - Office Common Space | RC2L26CF-8/RCLED13-8-NF | 1 | 40/46 | 1840 | | | 0.06 | 56.00 | 56.00 | 103.04 | 0.01 | 13.00 | 13.00 | 23.92 | 79.12 | 0.00 |
| 004 | 1FL - Office Common Space | T2L4-T8/LED2L4-10-NL | 4 | 40/46 | 1840 | | | 0.18 | 45.00 | 180.00 | 331.20 | 0.08 | 20.00 | 80.00 | 147.20 | 184.00 | 0.00 |
| 005 | 1FL - PO1 | T2L4-T8-AB-S/LED2L4-10-NL | 1 | 40/46 | 1840 | | | 0.05 | 45.00 | 45.00 | 82.80 | 0.02 | 20.00 | 20.00 | 36.80 | 46.00 | 0.00 |
| 006 | 1FL - PO1 | T4L4-T8-AB-M/LED4L4-10-NL | 1 | 40/46 | 1840 | | | 0.09 | 89.00 | 89.00 | 163.76 | 0.04 | 40.00 | 40.00 | 73.60 | 90.16 | 0.00 |
| 007 | 1FL - Conference Room | T2L4-T8-AB-S/LED2L4-10-NL | 1 | 40/42 | 1680 | | EMS | 0.05 | 45.00 | 45.00 | 75.60 | 0.02 | 20.00 | 20.00 | 33.60 | 42.00 | 0.00 |
| 008 | 1FL - Conference Room | T4L4-T8-AB-M/LED4L4-10-NL | 1 | 40/42 | 1680 | | | 0.09 | 89.00 | 89.00 | 149.52 | 0.04 | 40.00 | 40.00 | 67.20 | 82.32 | 0.00 |
| 009 | 1FL - Copy Room | T3L4-T8-AB/LED3L4-10-NL | 2 | 40/46 | 1840 | | | 0.14 | 68.00 | 136.00 | 250.24 | 0.06 | 30.00 | 60.00 | 110.40 | 139.84 | 0.00 |
| 010 | 1FL - Copy Room Hall | RC18CF-R30/LED11R30-NL | 1 | 40/46 | 1840 | | | 0.02 | 20.00 | 20.00 | 36.80 | 0.01 | 11.00 | 11.00 | 20.24 | 16.56 | 0.00 |
| 011 | 1FL - Common Space @ Office Area | T2L4-T8/LED2L4-10-NL | 12 | 60/52 | 3120 | | | 0.54 | 45.00 | 540.00 | 1684.80 | 0.24 | 20.00 | 240.00 | 748.80 | 936.00 | 0.00 |
| 012 | 1FL - Common Space @ Office Area | T2L2U6-T8/LED2L2U6-14-NL | 12 | 60/52 | 3120 | | | 0.54 | 45.00 | 540.00 | 1684.80 | 0.34 | 28.00 | 336.00 | 1048.32 | 636.48 | 0.00 |
| 013 | 1FL - Office Lav | P2L2U6-T8/LED2L2U6-14-NL | 1 | 20/42 | 840 | | | 0.05 | 45.00 | 45.00 | 37.80 | 0.03 | 28.00 | 28.00 | 23.52 | 14.28 | 0.00 |
| 014 | 1FL - Display Case | W2L4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.04 | 20.00 | 40.00 | 124.80 | 156.00 | 0.00 |
| 015 | 1FL - Room 110 Stg. | W2L4-T8/LED2L4-10-NL | 2 | 20/42 | 840 | | | 0.09 | 45.00 | 90.00 | 75.60 | 0.04 | 20.00 | 40.00 | 33.60 | 42.00 | 0.00 |
| 016 | 1FL - Corr by 104 | T2L4-T8/LED2L4-10-NL | 15 | 60/52 | 3120 | | | 0.68 | 45.00 | 675.00 | 2106.00 | 0.30 | 20.00 | 300.00 | 936.00 | 1170.00 | 0.00 |
| 017 | 1FL - CR 101-108 | T4L4-T8-AB-M/LED4L4-10-NL | 48 | 40/42 | 1680 | | EMS | 4.27 | 89.00 | 4272.00 | 7176.96 | 1.92 | 40.00 | 1920.00 | 3225.60 | 3951.36 | 0.00 |
| 018 | 1FL - CR 101-108 | T2L4-T8-AB-S/LED2L4-10-NL | 48 | 40/42 | 1680 | | | 2.16 | 45.00 | 2160.00 | 3628.80 | 0.96 | 20.00 | 960.00 | 1612.80 | 2016.00 | 0.00 |
| 019 | 1FL - CR Lavs 101-108 | SM1L32CIR/SMLED14-12-NF | 16 | 40/42 | 1680 | | | 0.54 | 34.00 | 544.00 | 913.92 | 0.22 | 14.00 | 224.00 | 376.32 | 537.60 | 0.00 |
| 020 | 1FL - Custodial Closet 1 | SM18CF/LED6A-NL | 1 | 10/52 | 520 | | | 0.02 | 20.00 | 20.00 | 10.40 | 0.01 | 6.00 | 6.00 | 3.12 | 7.28 | 0.00 |
| 021 | 1FL - Gym Common Area | T2L4-T8/LED2L4-10-NL | 14 | 60/52 | 3120 | | | 0.63 | 45.00 | 630.00 | 1965.60 | 0.28 | 20.00 | 280.00 | 873.60 | 1092.00 | 0.00 |
| 022 | 1FL - Foyer | T2L4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.04 | 20.00 | 40.00 | 124.80 | 156.00 | 0.00 |
| 023 | 1FL - CR 193 | T4L4-T8-AB-M/LED4L4-10-NL | 7 | 40/42 | 1680 | | EMS | 0.62 | 89.00 | 623.00 | 1046.64 | 0.28 | 40.00 | 280.00 | 470.40 | 576.24 | 0.00 |
| 024 | 1FL - CR 193 | T2L4-T8-AB-S/LED2L4-10-NL | 7 | 40/42 | 1680 | | | 0.32 | 45.00 | 315.00 | 529.20 | 0.14 | 20.00 | 140.00 | 235.20 | 294.00 | 0.00 |
| 025 | 1FL - CR 191 | T4L4-T8-AB-M/LED4L4-10-NL | 7 | 40/42 | 1680 | | EMS | 0.62 | 89.00 | 623.00 | 1046.64 | 0.28 | 40.00 | 280.00 | 470.40 | 576.24 | 0.00 |
| 026 | 1FL - CR 192 | T2L4-T8-AB-S/LED2L4-10-NL | 7 | 40/42 | 1680 | | | 0.32 | 45.00 | 315.00 | 529.20 | 0.14 | 20.00 | 140.00 | 235.20 | 294.00 | 0.00 |
| 027 | 1FL - Rm 193 Connector | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 028 | 1FL - Corr 1 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 029 | 1FL - Sprinkler Room | T2L4-T8/LED2L4-10-NL | 1 | 10/52 | 520 | | | 0.05 | 45.00 | 45.00 | 23.40 | 0.02 | 20.00 | 20.00 | 10.40 | 13.00 | 0.00 |
| 030 | 1FL - Mens Lav | T2L2U6-T8/LED2L2U6-14-NL | 1 | 40/42 | 1680 | | EMS | 0.05 | 45.00 | 45.00 | 75.60 | 0.03 | 28.00 | 28.00 | 47.04 | 28.56 | 0.00 |
| 031 | 1FL - Mens Lav | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 032 | 1FL - Womens Lav | T2L2U6-T8/LED2L2U6-14-NL | 1 | 40/42 | 1680 | | EMS | 0.05 | 45.00 | 45.00 | 75.60 | 0.03 | 28.00 | 28.00 | 47.04 | 28.56 | 0.00 |
| 033 | 1FL - Womens Lav | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 034 | 1FL - Room 181 | T2L4-T8/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 035 | 1FL - Room 181 | T2L2U6-T8/LED2L2U6-14-NL | 1 | 40/42 | 1680 | | | 0.05 | 45.00 | 45.00 | 75.60 | 0.03 | 28.00 | 28.00 | 47.04 | 28.56 | 0.00 |
| 036 | 1FL - Room 178 | T2L4-T8/LED2L4-10-NL | 8 | 40/42 | 1680 | | | 0.36 | 45.00 | 360.00 | 604.80 | 0.16 | 20.00 | 160.00 | 268.80 | 336.00 | 0.00 |
| 037 | 1FL - Side Entry | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 038 | 1FL - Corr 2 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 039 | 1FL - Rear Entrance | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 040 | 1FL - Room 168 | T4L4-T8-AB-M/LED4L4-10-NL | 2 | 40/42 | 1680 | | | 0.18 | 89.00 | 178.00 | 299.04 | 0.08 | 40.00 | 80.00 | 134.40 | 164.64 | 0.00 |
| 041 | 1FL - Room 168 | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 042 | 1FL - Room 169 | T4L4-T8-AB-M/LED4L4-10-NL | 2 | 40/42 | 1680 | | | 0.18 | 89.00 | 178.00 | 299.04 | 0.08 | 40.00 | 80.00 | 134.40 | 164.64 | 0.00 |



Rye Elementary School
Room by Room Savings Analysis



| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
|------|------------------------|---------------------------|-------|------------|------------|-----|---------|---------|----------|------------|----------|---------|----------|------------|----------|----------|----------------|
| 043 | 1FL - Room 169 | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 044 | 1FL - Room 169 | T3L4-T8-AB/LED3L4-10-NL | 2 | 40/42 | 1680 | | | 0.14 | 68.00 | 136.00 | 228.48 | 0.06 | 30.00 | 60.00 | 100.80 | 127.68 | 0.00 |
| 045 | 1FL - Room 165 | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 046 | 1FL - Room 165 | T4L4-T8-AB-M/LED4L4-10-NL | 4 | 40/42 | 1680 | | EMS | 0.36 | 89.00 | 356.00 | 598.08 | 0.16 | 40.00 | 160.00 | 268.80 | 329.28 | 0.00 |
| 047 | 1FL - Room 165 | T2L4-T8-AB-S/LED2L4-10-NL | 4 | 40/42 | 1680 | | | 0.18 | 45.00 | 180.00 | 302.40 | 0.08 | 20.00 | 80.00 | 134.40 | 168.00 | 0.00 |
| 048 | 1FL - Room 164 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 049 | 1FL - Room 164 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 050 | 1FL - Room 163 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 051 | 1FL - Room 163 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 052 | 1FL - Room 163 PO | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 053 | 1FL - Room 163 PO | I2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 054 | 1FL - Corr 3 | T2L4-T8/LED2L4-10-NL | 11 | 60/52 | 3120 | | | 0.50 | 45.00 | 495.00 | 1544.40 | 0.22 | 20.00 | 220.00 | 686.40 | 858.00 | 0.00 |
| 055 | 1FL - Room 155 | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 056 | 1FL - Room 155 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 057 | 1FL - Room 155 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 058 | 1FL - Room 153 | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 059 | 1FL - Room 153 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 060 | 1FL - Room 153 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 061 | 1FL - Corr Stg. | I2L4-T8/LED2L4-10-NL | 1 | 10/52 | 520 | | | 0.05 | 45.00 | 45.00 | 23.40 | 0.02 | 20.00 | 20.00 | 10.40 | 13.00 | 0.00 |
| 062 | 1FL - Room 151 | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 063 | 1FL - Room 151 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 064 | 1FL - Room 151 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 065 | 1FL - Room 150 | T3L4-T8-AB/LED3L4-10-NL | 1 | 40/42 | 1680 | | | 0.07 | 68.00 | 68.00 | 114.24 | 0.03 | 30.00 | 30.00 | 50.40 | 63.84 | 0.00 |
| 066 | 1FL - Room 150 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 067 | 1FL - Room 150 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 068 | 1FL - Room 149 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 069 | 1FL - Room 149 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 070 | 1FL - Corr 4 | T2L4-T8/LED2L4-10-NL | 13 | 60/52 | 3120 | | | 0.59 | 45.00 | 585.00 | 1825.20 | 0.26 | 20.00 | 260.00 | 811.20 | 1014.00 | 0.00 |
| 071 | 1FL - Mens Lav 2 | T2L4-T8/LED2L4-10-NL | 1 | 40/42 | 1680 | | EMS | 0.05 | 45.00 | 45.00 | 75.60 | 0.02 | 20.00 | 20.00 | 33.60 | 42.00 | 0.00 |
| 072 | 1FL - Mens Lav 2 | T2L2U6-T8/LED2L2U6-14-NL | 1 | 40/42 | 1680 | | | 0.05 | 45.00 | 45.00 | 75.60 | 0.03 | 28.00 | 28.00 | 47.04 | 28.56 | 0.00 |
| 073 | 1FL - Womens Lav 2 | T2L4-T8/LED2L4-10-NL | 1 | 40/42 | 1680 | | EMS | 0.05 | 45.00 | 45.00 | 75.60 | 0.02 | 20.00 | 20.00 | 33.60 | 42.00 | 0.00 |
| 074 | 1FL - Womens Lav 2 | T2L2U6-T8/LED2L2U6-14-NL | 1 | 40/42 | 1680 | | | 0.05 | 45.00 | 45.00 | 75.60 | 0.03 | 28.00 | 28.00 | 47.04 | 28.56 | 0.00 |
| 075 | 1FL - Stg. | T2L4-T8/LED2L4-10-NL | 1 | 10/52 | 520 | | | 0.05 | 45.00 | 45.00 | 23.40 | 0.02 | 20.00 | 20.00 | 10.40 | 13.00 | 0.00 |
| 076 | 1FL - Room 148 | T2L2U6-T8/LED2L2U6-14-NL | 4 | 40/42 | 1680 | | | 0.18 | 45.00 | 180.00 | 302.40 | 0.11 | 28.00 | 112.00 | 188.16 | 114.24 | 0.00 |
| 077 | 1FL - Room 148 | T3L4-T8/LED3L4-10-NL | 20 | 40/42 | 1680 | | EMS | 1.36 | 68.00 | 1360.00 | 2284.80 | 0.60 | 30.00 | 600.00 | 1008.00 | 1276.80 | 0.00 |
| 078 | 1FL - Corr 5 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 079 | 1FL - Corr 5 | T2L2U6-T8/LED2L2U6-14-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.06 | 28.00 | 56.00 | 174.72 | 106.08 | 0.00 |
| 080 | 1FL - Room 147 | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 081 | 1FL - Stg. 2 | PS23CF/LED11A-NL | 1 | 10/52 | 520 | | | 0.03 | 25.00 | 25.00 | 13.00 | 0.01 | 11.00 | 11.00 | 5.72 | 7.28 | 0.00 |
| 082 | 1FL - Stg. By Room 140 | PS23CF/LED11A-NL | 1 | 10/52 | 520 | | | 0.03 | 25.00 | 25.00 | 13.00 | 0.01 | 11.00 | 11.00 | 5.72 | 7.28 | 0.00 |
| 083 | 1FL - Womens Room | T2L4-T8/LED2L4-10-NL | 3 | 40/42 | 1680 | | EMS | 0.14 | 45.00 | 135.00 | 226.80 | 0.06 | 20.00 | 60.00 | 100.80 | 126.00 | 0.00 |
| 084 | 1FL - Mens Room | T2L4-T8/LED2L4-10-NL | 3 | 40/42 | 1680 | | EMS | 0.14 | 45.00 | 135.00 | 226.80 | 0.06 | 20.00 | 60.00 | 100.80 | 126.00 | 0.00 |



Rye Elementary School
Room by Room Savings Analysis

| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
|------|---------------------------|------------------------------|-------|------------|------------|-----|------------|---------|----------|------------|----------|---------|----------|------------|----------|----------|----------------|
| 085 | 1FL - Rooms 128, 129, 131 | T4L4-T8-AB-M/LED4L4-10-NL | 36 | 40/42 | 1680 | | EMS | 3.20 | 89.00 | 3204.00 | 5382.72 | 1.44 | 40.00 | 1440.00 | 2419.20 | 2963.52 | 0.00 |
| 086 | 1FL - Rooms 128, 129, 131 | T2L4-T8-AB-S/LED2L4-10-NL | 36 | 40/42 | 1680 | | | 1.62 | 45.00 | 1620.00 | 2721.60 | 0.72 | 20.00 | 720.00 | 1209.60 | 1512.00 | 0.00 |
| 087 | 1FL - Room 133 | T2L4-T8/LED2L4-10-NL | 48 | 40/42 | 1680 | | | 2.16 | 45.00 | 2160.00 | 3628.80 | 0.96 | 20.00 | 960.00 | 1612.80 | 2016.00 | 0.00 |
| 088 | 1FL - Room 130 | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 089 | 1FL - Room 130 | T4L4-T8/LED4L4-10-NL | 2 | 40/42 | 1680 | | | 0.18 | 89.00 | 178.00 | 299.04 | 0.08 | 40.00 | 80.00 | 134.40 | 164.64 | 0.00 |
| 090 | 1FL - Corr by 127 | T2L4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.04 | 20.00 | 40.00 | 124.80 | 156.00 | 0.00 |
| 091 | 1FL - Rooms 126, 127 | T2L4-T8-AB/LED2L4-10-NL | 4 | 40/42 | 1680 | | | 0.18 | 45.00 | 180.00 | 302.40 | 0.08 | 20.00 | 80.00 | 134.40 | 168.00 | 0.00 |
| 092 | 1FL - Room 126 Stg. | I1L4-T8/LED1L4-10-NL | 1 | 10/52 | 520 | | | 0.02 | 24.00 | 24.00 | 12.48 | 0.01 | 10.00 | 10.00 | 5.20 | 7.28 | 0.00 |
| 093 | 1FL - Room 122, 123, 124 | T4L4-T8-AB-M/LED4L4-10-NL | 9 | 40/42 | 1680 | | | 0.80 | 89.00 | 801.00 | 1345.68 | 0.36 | 40.00 | 360.00 | 604.80 | 740.88 | 0.00 |
| 094 | 1FL - Room 122, 123, 124 | T2L4-T8-AB-S/LED2L4-10-NL | 9 | 40/42 | 1680 | | | 0.41 | 45.00 | 405.00 | 680.40 | 0.18 | 20.00 | 180.00 | 302.40 | 378.00 | 0.00 |
| 095 | 1FL - Nurse 120 | T3L4-T8/LED3L4-10-NL | 4 | 40/42 | 1680 | | | 0.27 | 68.00 | 272.00 | 456.96 | 0.12 | 30.00 | 120.00 | 201.60 | 255.36 | 0.00 |
| 096 | 1FL - Rooms 140, 141 | T3L4-T8/LED3L4-10-NL | 7 | 40/42 | 1680 | | | 0.48 | 68.00 | 476.00 | 799.68 | 0.21 | 30.00 | 210.00 | 352.80 | 446.88 | 0.00 |
| 097 | 1FL - Corr 6 | T2L4-T8/LED2L4-10-NL | 18 | 60/52 | 3120 | | | 0.81 | 45.00 | 810.00 | 2527.20 | 0.36 | 20.00 | 360.00 | 1123.20 | 1404.00 | 0.00 |
| 098 | 1FL - Foyer by 131 | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 099 | 1FL - Side Entry 2 | SM1L32CIR/SMLED14-12-NF | 1 | 60/52 | 3120 | | | 0.03 | 34.00 | 34.00 | 106.08 | 0.01 | 14.00 | 14.00 | 43.68 | 62.40 | 0.00 |
| 100 | 1FL - Gym | HIF4L4-TSHO/HBLED2-100-NL-NF | 18 | 70/52 | 3640 | 1 | NLIGHT AIR | 4.21 | 234.00 | 4212.00 | 15331.68 | 1.80 | 100.00 | 1800.00 | 6552.00 | 8779.68 | 3336.28 |
| 101 | 1FL - Stage | T2L4-1X4-T8/LED2L4-10-NL | 4 | 40/42 | 1680 | | | 0.18 | 45.00 | 180.00 | 302.40 | 0.08 | 20.00 | 80.00 | 134.40 | 168.00 | 0.00 |
| 102 | 1FL - Kitchen | T2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 103 | 1FL - Kitchen | T2L4-1X4-T8/LED2L4-10-NL | 8 | 40/42 | 1680 | | | 0.36 | 45.00 | 360.00 | 604.80 | 0.16 | 20.00 | 160.00 | 268.80 | 336.00 | 0.00 |
| 104 | 1FL - Kitchen Hood | JJ18CF/LED6A-NL | 3 | 40/42 | 1680 | | | 0.06 | 20.00 | 60.00 | 100.80 | 0.02 | 6.00 | 18.00 | 30.24 | 70.56 | 0.00 |
| 105 | 1FL - Kitchen Stg. | VT2L4-T8/LED2L4-10-NL | 2 | 40/42 | 1680 | | | 0.09 | 45.00 | 90.00 | 151.20 | 0.04 | 20.00 | 40.00 | 67.20 | 84.00 | 0.00 |
| 106 | 1FL - Electric Room | T2L4-1X4-T8/LED2L4-10-NL | 2 | 10/52 | 520 | | | 0.09 | 45.00 | 90.00 | 46.80 | 0.04 | 20.00 | 40.00 | 20.80 | 26.00 | 0.00 |
| 107 | 1FL - Room 001, 002 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/42 | 1680 | | EMS | 0.53 | 89.00 | 534.00 | 897.12 | 0.24 | 40.00 | 240.00 | 403.20 | 493.92 | 0.00 |
| 108 | 1FL - Room 001, 002 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/42 | 1680 | | | 0.27 | 45.00 | 270.00 | 453.60 | 0.12 | 20.00 | 120.00 | 201.60 | 252.00 | 0.00 |
| 109 | 1FL - Room 1 and 2 Stg. | T2L4-T8/LED2L4-10-NL | 4 | 20/42 | 840 | | | 0.18 | 45.00 | 180.00 | 151.20 | 0.08 | 20.00 | 80.00 | 67.20 | 84.00 | 0.00 |
| 110 | 1FL - Hall by 001 | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 111 | 1FL - Hall by 001 | T2L4-1X4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.09 | 45.00 | 90.00 | 280.80 | 0.04 | 20.00 | 40.00 | 124.80 | 156.00 | 0.00 |
| 112 | 1FL - PO2 | T4L4-T8-AB-M/LED4L4-10-NL | 1 | 40/46 | 1840 | | | 0.09 | 89.00 | 89.00 | 163.76 | 0.04 | 40.00 | 40.00 | 73.60 | 90.16 | 0.00 |
| 113 | 1FL - PO2 | T2L4-T8-AB-S/LED2L4-10-NL | 1 | 40/46 | 1840 | | | 0.05 | 45.00 | 45.00 | 82.80 | 0.02 | 20.00 | 20.00 | 36.80 | 46.00 | 0.00 |
| 114 | Exterior | LED/REMAIN | 1 | 84/52 | 4368 | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | 680 | | | 1 | | 42.11 | | | 86459.76 | 18.86 | | | | 47774.88 | 3336.28 |
| | | | | | | | | | | | | 23.25 | | | | | 51111.16 |



Rye Junior High School
Room by Room Savings Analysis

| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS Count | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
|------|---------------------------------|-----------------------------|-------|------------|------------|-----------|------------|---------|----------|------------|----------|---------|----------|------------|----------|----------|----------------|
| 001 | 1FL - Lobby | T2L4-T8/LED2L4-10-NL | 8 | 60/52 | 3120 | | | 0.36 | 45.00 | 360.00 | 1123.20 | 0.16 | 20.00 | 160.00 | 499.20 | 624.00 | 0.00 |
| 002 | 1FL - Main Office | T4L4-T8-AB-M/LED4L4-10-NL | 2 | 40/52 | 2080 | | | 0.18 | 89.00 | 178.00 | 370.24 | 0.08 | 40.00 | 80.00 | 166.40 | 203.84 | 0.00 |
| 003 | 1FL - Main Office | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 004 | 1FL - Main Office | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 005 | 1FL - Principal | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 006 | 1FL - Principal | T2L4-T8-AB-S/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 007 | 1FL - Principal | RC75-R30/LED11R30-NL | 1 | 40/52 | 2080 | | | 0.08 | 75.00 | 75.00 | 156.00 | 0.01 | 11.00 | 11.00 | 22.88 | 133.12 | 0.00 |
| 008 | 1FL - Mail Room | T3L4-T8/LED3L4-10-NL | 2 | 40/52 | 2080 | | | 0.14 | 68.00 | 136.00 | 282.88 | 0.06 | 30.00 | 60.00 | 124.80 | 158.08 | 0.00 |
| 009 | 1FL - Nurse | T2L4-T8/LED2L4-10-NL | 1 | 40/52 | 2080 | | | 0.05 | 45.00 | 45.00 | 93.60 | 0.02 | 20.00 | 20.00 | 41.60 | 52.00 | 0.00 |
| 010 | 1FL - 123B | T4L4-T8-AB-M/LED4L4-10-NL | 3 | 40/52 | 2080 | | | 0.27 | 89.00 | 267.00 | 555.36 | 0.12 | 40.00 | 120.00 | 249.60 | 305.76 | 0.00 |
| 011 | 1FL - 123B | T2L4-T8-AB-S/LED2L4-10-NL | 3 | 40/52 | 2080 | | | 0.14 | 45.00 | 135.00 | 280.80 | 0.06 | 20.00 | 60.00 | 124.80 | 156.00 | 0.00 |
| 012 | 1FL - 123 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/52 | 2080 | | EMS | 0.53 | 89.00 | 534.00 | 1110.72 | 0.24 | 40.00 | 240.00 | 499.20 | 611.52 | 0.00 |
| 013 | 1FL - 124 | T2L4-T8-AB-S/LED2L4-10-NL | 6 | 40/52 | 2080 | | | 0.27 | 45.00 | 270.00 | 561.60 | 0.12 | 20.00 | 120.00 | 249.60 | 312.00 | 0.00 |
| 014 | 1FL - Hall Front of Nurse | T2L4-T8/LED2L4-10-NL | 4 | 60/52 | 3120 | | | 0.18 | 45.00 | 180.00 | 561.60 | 0.08 | 20.00 | 80.00 | 249.60 | 312.00 | 0.00 |
| 015 | 1FL - Hall Front of Nurse | P2L2U6-T8/VLED2-16-KIT | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 16.00 | 16.00 | 49.92 | 90.48 | 0.00 |
| 016 | 1FL - Boys and Girls Restroom | T2L4-T8/LED2L4-10-NL | 6 | 40/52 | 2080 | | EMS | 0.27 | 45.00 | 270.00 | 561.60 | 0.12 | 20.00 | 120.00 | 249.60 | 312.00 | 0.00 |
| 017 | 1FL - Stairs 1 | RC18CF-R30/LED11R30-NL | 1 | 60/52 | 3120 | | | 0.02 | 20.00 | 20.00 | 62.40 | 0.01 | 11.00 | 11.00 | 34.32 | 28.08 | 0.00 |
| 018 | 1FL - Stairs 1 | CW1L4-T8/LED1L4-10-NL | 3 | 60/52 | 3120 | | | 0.08 | 26.00 | 78.00 | 243.36 | 0.03 | 10.00 | 30.00 | 93.60 | 149.76 | 0.00 |
| 019 | 1FL - Room 118 & 119 | T4L4-T8-AB-M/LED4L4-10-NL | 16 | 40/52 | 2080 | | | 1.42 | 89.00 | 1424.00 | 2961.92 | 0.64 | 40.00 | 640.00 | 1331.20 | 1630.72 | 0.00 |
| 020 | 1FL - Room 118 & 120 | T2L4-T8-AB-S/LED2L4-10-NL | 16 | 40/52 | 2080 | | | 0.72 | 45.00 | 720.00 | 1497.60 | 0.32 | 20.00 | 320.00 | 665.60 | 832.00 | 0.00 |
| 021 | 1FL - Room 120 | T4L4-T8-AB-M/LED4L4-10-NL | 8 | 40/52 | 2080 | | EMS | 0.71 | 89.00 | 712.00 | 1480.96 | 0.32 | 40.00 | 320.00 | 665.60 | 815.36 | 0.00 |
| 022 | 1FL - Room 121 | T2L4-T8-AB-S/LED2L4-10-NL | 8 | 40/52 | 2080 | | | 0.36 | 45.00 | 360.00 | 748.80 | 0.16 | 20.00 | 160.00 | 332.80 | 416.00 | 0.00 |
| 023 | 1FL - Stairs 2 | CW1L4-T8/LED1L4-10-NL | 4 | 60/52 | 3120 | | | 0.10 | 26.00 | 104.00 | 324.48 | 0.04 | 10.00 | 40.00 | 124.80 | 199.68 | 0.00 |
| 024 | 1FL - Hall by 119 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 025 | 1FL - Kitchen | VT2L4-T8/LED2L4-10-NL | 7 | 40/52 | 2080 | | EMS | 0.32 | 45.00 | 315.00 | 655.20 | 0.14 | 20.00 | 140.00 | 291.20 | 364.00 | 0.00 |
| 026 | 1FL - Kitchen Hood | JJ18CF/LED6A-NL | 3 | 40/52 | 2080 | | | 0.06 | 20.00 | 60.00 | 124.80 | 0.02 | 6.00 | 18.00 | 37.44 | 87.36 | 0.00 |
| 027 | 1FL - Hall by SPED | T2L4-T8/LED2L4-10-NL | 4 | 60/52 | 3120 | | | 0.18 | 45.00 | 180.00 | 561.60 | 0.08 | 20.00 | 80.00 | 249.60 | 312.00 | 0.00 |
| 028 | 1FL - Café | T3L4-T8/LED3L4-10-NL | 24 | 50/42 | 2100 | | EMS | 1.63 | 68.00 | 1632.00 | 3427.20 | 0.72 | 30.00 | 720.00 | 1512.00 | 1915.20 | 0.00 |
| 029 | 1FL - Stage | PS42CF/LED11A-NL | 3 | 40/52 | 2080 | | | 0.13 | 44.00 | 132.00 | 274.56 | 0.03 | 11.00 | 33.00 | 68.64 | 205.92 | 0.00 |
| 030 | 1FL - Gym | HB4L4-T5HO/HBLED2-100-NL-NF | 20 | 70/52 | 3640 | 1 | NLIGHT AIR | 4.68 | 234.00 | 4680.00 | 17035.20 | 2.00 | 100.00 | 2000.00 | 7280.00 | 9755.20 | 3706.98 |
| 031 | 1FL - Chair Stg. | PS18CF/LED6A-NL | 1 | 20/52 | 1040 | | | 0.02 | 20.00 | 20.00 | 20.80 | 0.01 | 6.00 | 6.00 | 6.24 | 14.56 | 0.00 |
| 032 | 1FL - Rooms 115 & 116 SPED | T4L4-T8-AB-M/LED4L4-10-NL | 4 | 40/52 | 2080 | | | 0.36 | 89.00 | 356.00 | 740.48 | 0.16 | 40.00 | 160.00 | 332.80 | 407.68 | 0.00 |
| 033 | 1FL - Rooms 115 & 116 SPED | T2L4-T8-AB-S/LED2L4-10-NL | 4 | 40/52 | 2080 | | | 0.18 | 45.00 | 180.00 | 374.40 | 0.08 | 20.00 | 80.00 | 166.40 | 208.00 | 0.00 |
| 034 | 1FL - Common Area Front of Café | T2L4-T8/LED2L4-10-NL | 13 | 60/52 | 3120 | | | 0.59 | 45.00 | 585.00 | 1825.20 | 0.26 | 20.00 | 260.00 | 811.20 | 1014.00 | 0.00 |
| 035 | 1FL - Trophy Case | S2L4-T8/LED2L4-10-NL | 3 | 60/52 | 3120 | | | 0.14 | 45.00 | 135.00 | 421.20 | 0.06 | 20.00 | 60.00 | 187.20 | 234.00 | 0.00 |
| 036 | 1FL - Custodian | S2L4-8F-T8/LED2L4-10-NL | 1 | 20/52 | 1040 | | | 0.05 | 45.00 | 45.00 | 46.80 | 0.02 | 20.00 | 20.00 | 20.80 | 26.00 | 0.00 |
| 037 | 1FL - Lavs | T2L4-T8/LED2L4-10-NL | 4 | 40/52 | 2080 | | | 0.18 | 45.00 | 180.00 | 374.40 | 0.08 | 20.00 | 80.00 | 166.40 | 208.00 | 0.00 |
| 038 | 1FL - Gym Foyer Common Area | T2L4-T8/LED2L4-10-NL | 5 | 60/52 | 3120 | | | 0.23 | 45.00 | 225.00 | 702.00 | 0.10 | 20.00 | 100.00 | 312.00 | 390.00 | 0.00 |
| 039 | 1FL - Room 110 Teachers Lounge | T2L4-T8/LED2L4-10-NL | 4 | 40/52 | 2080 | | | 0.18 | 45.00 | 180.00 | 374.40 | 0.08 | 20.00 | 80.00 | 166.40 | 208.00 | 0.00 |
| 040 | 1FL - Short Hall by Stairs | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 041 | 1FL - N/S Hall by Library | T2L4-T8/LED2L4-10-NL | 4 | 60/52 | 3120 | | | 0.18 | 45.00 | 180.00 | 561.60 | 0.08 | 20.00 | 80.00 | 249.60 | 312.00 | 0.00 |
| 042 | 1FL - N/S Hall by Library | P2L2U6-T8/VLED2-16-KIT | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 16.00 | 16.00 | 49.92 | 90.48 | 0.00 |



Rye Junior High School
Room by Room Savings Analysis



| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS Count | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
|------|---------------------------------|---------------------------|-------|------------|------------|-----------|---------|---------|----------|------------|----------|---------|----------|------------|----------|----------|----------------|
| 043 | 1FL - Library | T2L4-T8/LED2L4-10-NL | 1 | 45/42 | 1890 | | | 0.05 | 45.00 | 45.00 | 85.05 | 0.02 | 20.00 | 20.00 | 37.80 | 47.25 | 0.00 |
| 044 | 1FL - Library | W2L4-8F-T8/LED2L4-10-NL | 1 | 45/42 | 1890 | | | 0.04 | 42.00 | 42.00 | 79.38 | 0.02 | 20.00 | 20.00 | 37.80 | 41.58 | 0.00 |
| 045 | 1FL - Library | P2L2U6-T8/VLED2-16-KIT | 7 | 45/42 | 1890 | | | 0.32 | 45.00 | 315.00 | 595.35 | 0.11 | 16.00 | 112.00 | 211.68 | 383.67 | 0.00 |
| 046 | 1FL - Library | T3L4-T8/LED3L4-10-NL | 15 | 45/42 | 1890 | | | 0.96 | 64.00 | 960.00 | 1814.40 | 0.45 | 30.00 | 450.00 | 850.50 | 963.90 | 0.00 |
| 047 | 1FL - Library | WS13CF/LED6A-NL | 8 | 45/42 | 1890 | | | 0.12 | 15.00 | 120.00 | 226.80 | 0.05 | 6.00 | 48.00 | 90.72 | 136.08 | 0.00 |
| 048 | 2FL - Top Stairs 1 | CW1L4-T8/LED1L4-10-NL | 2 | 60/52 | 3120 | | EMS | 0.05 | 26.00 | 52.00 | 162.24 | 0.02 | 10.00 | 20.00 | 62.40 | 99.84 | 0.00 |
| 049 | 2FL - Room 201 | T4L4-T8-AB-M/LED4L4-10-NL | 6 | 40/52 | 2080 | | EMS | 0.53 | 89.00 | 534.00 | 1110.72 | 0.24 | 40.00 | 240.00 | 499.20 | 611.52 | 0.00 |
| 050 | 2FL - Room 202 | T2L4-T8-AB-S/LED2L4-10-NL | 8 | 40/52 | 2080 | | EMS | 0.36 | 45.00 | 360.00 | 748.80 | 0.16 | 20.00 | 160.00 | 332.80 | 416.00 | 0.00 |
| 051 | 2FL - Room 216 & 218 | T4L4-T8-AB-M/LED4L4-10-NL | 10 | 40/52 | 2080 | | EMS | 0.89 | 89.00 | 890.00 | 1851.20 | 0.40 | 40.00 | 400.00 | 832.00 | 1019.20 | 0.00 |
| 052 | 2FL - Room 216 & 219 | T2L4-T8-AB-S/LED2L4-10-NL | 10 | 40/52 | 2080 | | | 0.45 | 45.00 | 450.00 | 936.00 | 0.20 | 20.00 | 200.00 | 416.00 | 520.00 | 0.00 |
| 053 | 2FL - Hall by 218 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 054 | 2FL - Stairs 2 | CW1L4-T8/LED1L4-10-NL | 4 | 60/52 | 3120 | | | 0.10 | 26.00 | 104.00 | 324.48 | 0.04 | 10.00 | 40.00 | 124.80 | 199.68 | 0.00 |
| 055 | 2FL - Stairs 2 | T2L4-T8/LED2L4-10-NL | 1 | 60/52 | 3120 | | | 0.05 | 45.00 | 45.00 | 140.40 | 0.02 | 20.00 | 20.00 | 62.40 | 78.00 | 0.00 |
| 056 | 2FL - Rooms 209,211,212 | T4L4-T8-AB-M/LED4L4-10-NL | 32 | 40/52 | 2080 | | EMS | 2.85 | 89.00 | 2848.00 | 5923.84 | 1.28 | 40.00 | 1280.00 | 2662.40 | 3261.44 | 0.00 |
| 057 | 2FL - Rooms 209,211,213 | T2L4-T8-AB-S/LED2L4-10-NL | 32 | 40/52 | 2080 | | EMS | 1.44 | 45.00 | 1440.00 | 2995.20 | 0.64 | 20.00 | 640.00 | 1331.20 | 1664.00 | 0.00 |
| 058 | 2FL - Stairs by 210 | CW1L4-T8/LED1L4-10-NL | 2 | 60/52 | 3120 | | | 0.05 | 26.00 | 52.00 | 162.24 | 0.02 | 10.00 | 20.00 | 62.40 | 99.84 | 0.00 |
| 059 | 2FL - Hall by 211 | T2L4-T8/LED2L4-10-NL | 6 | 60/52 | 3120 | | | 0.27 | 45.00 | 270.00 | 842.40 | 0.12 | 20.00 | 120.00 | 374.40 | 468.00 | 0.00 |
| 060 | 2FL - Room 204 | T4L4-T8-AB-M/LED4L4-10-NL | 7 | 40/52 | 2080 | | EMS | 0.62 | 89.00 | 623.00 | 1295.84 | 0.28 | 40.00 | 280.00 | 582.40 | 713.44 | 0.00 |
| 061 | 2FL - Room 204 | T2L4-T8-AB-S/LED2L4-10-NL | 7 | 40/52 | 2080 | | EMS | 0.32 | 45.00 | 315.00 | 655.20 | 0.14 | 20.00 | 140.00 | 291.20 | 364.00 | 0.00 |
| 062 | 2FL - Room 204 | T2L4-T8-AB-S/LED2L4-10-NL | 1 | 40/52 | 2080 | | EMS | 0.05 | 45.00 | 45.00 | 93.60 | 0.02 | 20.00 | 20.00 | 41.60 | 52.00 | 0.00 |
| 063 | 2FL - Stg. Room | T2L4-T8/LED2L4-10-NL | 5 | 20/42 | 840 | | EMS | 0.23 | 45.00 | 225.00 | 189.00 | 0.10 | 20.00 | 100.00 | 84.00 | 105.00 | 0.00 |
| 064 | 2FL - Custodian Room | S1L4-T8/LED1L4-10-NL | 2 | 20/52 | 1040 | | | 0.05 | 24.00 | 48.00 | 49.92 | 0.02 | 10.00 | 20.00 | 20.80 | 29.12 | 0.00 |
| 065 | 2FL - Guidance | S2L4-T8/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 066 | 2FL - Computer Room by Guidance | T2L4-T8/LED2L4-10-NL | 8 | 40/52 | 2080 | | | 0.36 | 45.00 | 360.00 | 748.80 | 0.16 | 20.00 | 160.00 | 332.80 | 416.00 | 0.00 |
| 067 | 2FL - Computer Room by Guidance | P2L2U6-T8/VLED2-16-KIT | 5 | 40/52 | 2080 | | | 0.23 | 45.00 | 225.00 | 468.00 | 0.08 | 16.00 | 80.00 | 166.40 | 301.60 | 0.00 |
| 068 | 2FL - Computer Room | T2L4-T8/LED2L4-10-NL | 2 | 40/52 | 2080 | | | 0.09 | 45.00 | 90.00 | 187.20 | 0.04 | 20.00 | 40.00 | 83.20 | 104.00 | 0.00 |
| 069 | 2FL - Room 203 | T4L4-T8-AB-M/LED4L4-10-NL | 9 | 40/52 | 2080 | | EMS | 0.80 | 89.00 | 801.00 | 1666.08 | 0.36 | 40.00 | 360.00 | 748.80 | 917.28 | 0.00 |
| 070 | 2FL - Room 203 | T2L4-T8-AB-S/LED2L4-10-NL | 9 | 40/52 | 2080 | | EMS | 0.41 | 45.00 | 405.00 | 842.40 | 0.18 | 20.00 | 180.00 | 374.40 | 468.00 | 0.00 |
| 071 | 2FL - Room 202 | T4L4-T8-AB-M/LED4L4-10-NL | 4 | 40/52 | 2080 | | EMS | 0.36 | 89.00 | 356.00 | 740.48 | 0.16 | 40.00 | 160.00 | 332.80 | 407.68 | 0.00 |
| 072 | 2FL - Room 202 | T2L4-T8-AB-S/LED2L4-10-NL | 4 | 40/52 | 2080 | | EMS | 0.18 | 45.00 | 180.00 | 374.40 | 0.08 | 20.00 | 80.00 | 166.40 | 208.00 | 0.00 |
| 073 | 2FL - Room 202 | T3L4-T8/LED3L4-10-NL | 1 | 40/52 | 2080 | | EMS | 0.07 | 68.00 | 68.00 | 141.44 | 0.03 | 30.00 | 30.00 | 62.40 | 79.04 | 0.00 |
| 074 | 2FL - Girls and Boys RR | T2L4-T8/LED2L4-10-NL | 6 | 40/52 | 2080 | | EMS | 0.27 | 45.00 | 270.00 | 561.60 | 0.12 | 20.00 | 120.00 | 249.60 | 312.00 | 0.00 |
| 075 | LL - Room 016 | CW2L4-8F-T8/LED2L4-10-NL | 13 | 40/52 | 2080 | | | 0.59 | 45.00 | 585.00 | 1216.80 | 0.26 | 20.00 | 260.00 | 540.80 | 676.00 | 0.00 |
| 076 | LL - Room 015 | CW1L4-T8/LED1L4-10-NL | 5 | 40/52 | 2080 | | EMS | 0.13 | 26.00 | 130.00 | 270.40 | 0.05 | 10.00 | 50.00 | 104.00 | 166.40 | 0.00 |
| 077 | LL - Room 015 | CW2L4-8F-T8/LED2L4-10-NL | 8 | 40/52 | 2080 | | EMS | 0.36 | 45.00 | 360.00 | 748.80 | 0.16 | 20.00 | 160.00 | 332.80 | 416.00 | 0.00 |
| 078 | LL - Band Room | CW2L4-8F-T8/LED2L4-10-NL | 13 | 40/52 | 2080 | | EMS | 0.59 | 45.00 | 585.00 | 1216.80 | 0.26 | 20.00 | 260.00 | 540.80 | 676.00 | 0.00 |
| 079 | LL - Band Room | CW1L4-T8/LED1L4-10-NL | 4 | 40/52 | 2080 | | EMS | 0.10 | 26.00 | 104.00 | 216.32 | 0.04 | 10.00 | 40.00 | 83.20 | 133.12 | 0.00 |
| 080 | LL - Band Room PO | CW1L4-T8/LED1L4-10-NL | 3 | 40/52 | 2080 | | | 0.07 | 24.00 | 72.00 | 149.76 | 0.03 | 10.00 | 30.00 | 62.40 | 87.36 | 0.00 |
| 081 | LL - Room 008 | T2L4-T8/LED2L4-10-NL | 12 | 40/52 | 2080 | | EMS | 0.54 | 45.00 | 540.00 | 1123.20 | 0.24 | 20.00 | 240.00 | 499.20 | 624.00 | 0.00 |
| 082 | LL - T Shaped Hall | CW1L4-T8/LED1L4-10-NL | 12 | 60/52 | 3120 | | | 0.29 | 24.00 | 288.00 | 898.56 | 0.12 | 10.00 | 120.00 | 374.40 | 524.16 | 0.00 |
| 083 | LL - Lavs | CW1L4-T8/LED1L4-10-NL | 6 | 40/52 | 2080 | | | 0.16 | 26.00 | 156.00 | 324.48 | 0.06 | 10.00 | 60.00 | 124.80 | 199.68 | 0.00 |
| 084 | LL - Room 017 | SMT2L4-T8/LED2L4-10-NL | 13 | 40/52 | 2080 | | | 0.59 | 45.00 | 585.00 | 1216.80 | 0.26 | 20.00 | 260.00 | 540.80 | 676.00 | 0.00 |



| EMC | | Rye Junior High School | | | | | | | | | | | | | | Town of Rye, NH | |
|------------------------------------|-------------------------------|-------------------------------|-------|------------|------------|-----------|---------|---------|----------|------------|----------|---------|----------|------------|----------|-------------------|----------------|
| ENERGY MANAGEMENT CONSULTANTS INC. | | Room by Room Savings Analysis | | | | | | | | | | | | | | INCORPORATED 1786 | |
| Line | Room | EMC CM Code | Count | Hours/Week | Hours/Year | WWS Count | OS Type | Curr kW | Curr I/W | Curr Watts | Curr kWh | Prop kW | Prop I/W | Prop Watts | Prop kWh | kWh Svgs | Add'l kWh Svgs |
| 085 | LL - PO | SMT2L4-T8/LED2L4-10-NL | 4 | 40/52 | 2080 | | EMS | 0.18 | 45.00 | 180.00 | 374.40 | 0.08 | 20.00 | 80.00 | 166.40 | 208.00 | 0.00 |
| 086 | LL - Hall | CW1L4-T8/LED1L4-10-NL | 1 | 60/52 | 3120 | | | 0.03 | 26.00 | 26.00 | 81.12 | 0.01 | 10.00 | 10.00 | 31.20 | 49.92 | 0.00 |
| 087 | LL - Project Room | CW1L4-T8/LED1L4-10-NL | 8 | 40/52 | 2080 | | | 0.21 | 26.00 | 208.00 | 432.64 | 0.08 | 10.00 | 80.00 | 166.40 | 266.24 | 0.00 |
| 088 | LL - Long Hall | CW1L4-T8/LED1L4-10-NL | 13 | 60/52 | 3120 | | | 0.34 | 26.00 | 338.00 | 1054.56 | 0.13 | 10.00 | 130.00 | 405.60 | 648.96 | 0.00 |
| 089 | LL - Boys & Girls Locker Room | T2L2-T8/LED2L2-7-NL | 12 | 40/52 | 2080 | | | 0.54 | 45.00 | 540.00 | 1123.20 | 0.17 | 14.00 | 168.00 | 349.44 | 773.76 | 0.00 |
| 090 | LL - Boys & Girls Locker Room | CW1L4-T8/LED1L4-10-NL | 8 | 40/52 | 2080 | | | 0.21 | 26.00 | 208.00 | 432.64 | 0.08 | 10.00 | 80.00 | 166.40 | 266.24 | 0.00 |
| 091 | LL - Locker Room Hall | CW1L4-T8/LED1L4-10-NL | 6 | 60/52 | 3120 | | | 0.16 | 26.00 | 156.00 | 486.72 | 0.06 | 10.00 | 60.00 | 187.20 | 299.52 | 0.00 |
| 092 | LL - Base of Stairs | T2L4-T8/LED2L4-10-NL | 2 | 60/52 | 3120 | | | 0.08 | 42.00 | 84.00 | 262.08 | 0.04 | 20.00 | 40.00 | 124.80 | 137.28 | 0.00 |
| 093 | LL - Base of Stairs | CW1L4-T8/LED1L4-10-NL | 1 | 60/52 | 3120 | | | 0.03 | 26.00 | 26.00 | 81.12 | 0.01 | 10.00 | 10.00 | 31.20 | 49.92 | 0.00 |
| | | | 586 | | | 1 | | 33.79 | | | 81261.82 | 14.70 | | | | 45994.52 | 3706.98 |
| | | | | | | | | | | | | 19.09 | | | | | 49701.50 |



Financial Investment

Cost-Savings Summary





Town of Rye

Prepared by Carl Edin

Cost Savings Summary

March 25, 2019

| Area | Savings | | Energy | Maint | Total | Project | Estimated Eversource | Net Project | Payback | ROI |
|--|-----------|----------------|---------------------|--------------------|---------------------|---------------------|----------------------|---------------------|-------------|--------------|
| | kW | kWh | Savings | Savings | Savings | Cost | Incentive | Cost | | |
| Rye Elementary School | 23 | 51,111 | \$ 7,973.32 | \$ 3,403.00 | \$ 11,376.32 | \$ 52,560.00 | \$ 26,280.00 | \$ 26,280.00 | 2.31 | 43.3% |
| Rye Junior High School | 19 | 49,701 | \$ 8,101.26 | \$ 2,932.00 | \$ 11,033.26 | \$ 44,374.00 | \$ 22,187.00 | \$ 22,187.00 | 2.01 | 49.7% |
| TOTALS | 42 | 100,812 | \$ 16,074.58 | \$ 6,335.00 | \$ 22,409.58 | \$ 96,934.00 | \$ 48,467.00 | \$ 48,467.00 | 2.16 | 46.2% |
| Notes: | | | | | | | | | | |
| 1. Estimated blended rate based on \$.156 & \$.163/kWh | | | | | | | | | | |
| 2. Eversource incentives to be approved. | | | | | | | | | | |





Project Process Recap

- ✓ EMC to complete site survey
- ✓ EMC to generate cost-savings proposal
- ✓ EMC to attain electric bills
- EMC to submit applications to Eversource for incentive approval
- Town of Rye to sign EMC & Eversource Terms and Conditions
- EMC to construct project
- EMC to coordinate post-utility walkthrough
- EMC to provide Town of Rye with warranty book

