



**High Performance
Lighting Improvement Project
Prepared for**



Rye, New Hampshire

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**Carl Edin
February 21, 2019**





February 21, 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, Town of Rye will achieve the following benefits:

- Reduced operating cost
- Reduced owning cost by removing inefficient incandescent and HID technology along with 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, Town of Rye is 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

February 2019

The **68,622 kWh** saved annually by this project equates to the following positive environmental impacts:

- **6 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.
- **4,735 fewer gallons of oil** need to be imported, reducing our dependence on foreign oil.
- **41 tons of CO₂**
Carbon Dioxide is considered a greenhouse gas and is a major contributor to global warming.
- **830 lbs. of SO₂**
Sulfur Dioxide- some major health effects associated with this pollutant are: asthma, respiratory illness and aggravation of existing cardiovascular disease.
- **423 lbs. of Nox**
Nitrogen Oxides are considered contributors to acid rain and ground level ozone (or smog).
- **28 lbs. of visible particulate**



Supporting Information

Room by Room Savings Analysis

Highway Dept.

Library

Public Safety

Recycling & Swap

Town Hall





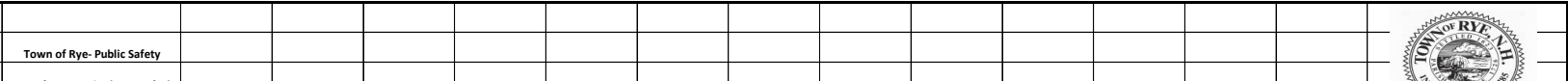
		Town of Rye- Highway Dept.															
		EMC Costing															
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	WWS	Control Type	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Svgs	Add'l kWh Svgs
1	1FL- Corr	T4L4-T8/VLED4-22-NL-KIT	3	40/52	2080		NLIGHT AIR	0.34	112.00	336.00	698.88	0.07	22.00	66.00	137.28	561.60	52.17
2	1FL- PO1	T4L4-T8/VLED4-22-NL-KIT	2	40/52	2080	1	NLIGHT AIR	0.22	112.00	224.00	465.92	0.04	22.00	44.00	91.52	374.40	34.78
3	1FL- PO2	T4L4-T8/VLED4-22-NL-KIT	2	40/52	2080	1	NLIGHT AIR	0.22	112.00	224.00	465.92	0.04	22.00	44.00	91.52	374.40	34.78
4	1FL- RR 1	FAN60/LED6A-NL	1	20/52	1040			0.06	60.00	60.00	62.40	0.01	6.00	6.00	6.24	56.16	0.00
5	1FL- Break	T4L4-T8/VLED4-22-NL-KIT	2	40/52	2080	1	NLIGHT AIR	0.22	112.00	224.00	465.92	0.04	22.00	44.00	91.52	374.40	34.78
6	1FL- Garage 1	I4L4-8F-T8/LED4L4-12-N	8	40/52	2080			0.90	112.00	896.00	1863.68	0.38	48.00	384.00	798.72	1064.96	0.00
7	1FL- Mezz	I4L4-8F-T8/LED4L4-12-N	2	40/52	2080			0.22	112.00	224.00	465.92	0.10	48.00	96.00	199.68	266.24	0.00
8	1FL- Mezz	PS26CF/LED11A-NL	1	40/52	2080			0.03	28.00	28.00	58.24	0.01	11.00	11.00	22.88	35.36	0.00
9	1FL- Parts	I2L4-T8/REMOVE	2	40/52	2080			0.12	60.00	120.00	249.60	0.00	0.00	0.00	0.00	249.60	0.00
10	1FL- Parts	FPLED4-40-NF/INSTALL	2	40/52	2080			0.00	0.00	0.00	0.00	0.08	40.00	80.00	166.40	-166.40	0.00
11	1FL- Garage 2	I4L4-8F-T8/LED4L4-12-N	10	40/52	2080			1.12	112.00	1120.00	2329.60	0.48	48.00	480.00	998.40	1331.20	0.00
12	1FL- Garage 3	I4L4-8F-T8/LED4L4-12-N	8	40/52	2080			0.90	112.00	896.00	1863.68	0.38	48.00	384.00	798.72	1064.96	0.00
13	EXT- Walls	FLLED/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
			44					4.35			8989.76	1.64				5586.88	156.50
												2.71					5743.38

																	
		Town of Rye - Library															
		Room by Room Savings Analysis															
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	Control Type	Control Count	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Sugs	Add'l kWh Sugs
1	1FL- Library PO 1	SMT2L4-T8/LED2L4-10-L	3	40/52	2080	WM5	1	0.18	60.00	180.00	374.40	0.06	20.00	60.00	124.80	249.60	37.44
2	1FL- Director	SMT2L4-T8/LED2L4-10-L	2	40/52	2080	WM5	1	0.12	60.00	120.00	249.60	0.04	20.00	40.00	83.20	166.40	24.96
3	1FL- Front	SM2L2U6-T8/LED2L2U6-15-L	2	50/52	2600			0.12	60.00	120.00	312.00	0.06	30.00	60.00	156.00	156.00	0.00
4	1FL- Newspaper Open	SMT2L4-T8/LED2L4-10-L	6	50/52	2600			0.36	60.00	360.00	936.00	0.12	20.00	120.00	312.00	624.00	0.00
5	1FL- Front Desk	SMT2L4-T8/LED2L4-10-L	4	50/52	2600			0.24	60.00	240.00	624.00	0.08	20.00	80.00	208.00	416.00	0.00
6	1FL- Front Desk	P2L4-T8/VLED4-22-KIT	10	50/52	2600			0.60	60.00	600.00	1560.00	0.22	22.00	220.00	572.00	988.00	0.00
7	1FL- Front Desk	P2L2U6-T8/VLED2-16-KIT	2	50/52	2600			0.12	60.00	120.00	312.00	0.03	16.00	32.00	83.20	228.80	0.00
8	1FL- Staff RR	P2L2U6-T8/VLED2-16-KIT	1	20/52	1040	WM5	1	0.06	60.00	60.00	62.40	0.02	16.00	16.00	16.64	45.76	4.99
9	1FL- Main Open	P2L4-T8/VLED4-22-KIT	18	50/52	2600			1.08	60.00	1080.00	2808.00	0.40	22.00	396.00	1029.60	1778.40	0.00
10	1FL- Fiction	PM3L40BX/LED3L17BX-L	3	50/52	2600			0.31	102.00	306.00	795.60	0.15	51.00	153.00	397.80	397.80	0.00
11	1FL- Fiction	WM2L4-T8/LED2L4-10-L	12	50/52	2600			0.72	60.00	720.00	1872.00	0.24	20.00	240.00	624.00	1248.00	0.00
12	1FL- Fiction	RC2L14CF-8/RCLED13-8-NF	3	50/52	2600			0.10	32.00	96.00	249.60	0.04	13.00	39.00	101.40	148.20	0.00
13	1FL- Fiction	TR18CF-R30/LED11R30-NL	4	50/52	2600			0.08	20.00	80.00	208.00	0.04	11.00	44.00	114.40	93.60	0.00
14	1FL- Conf	RC2L14CF-8/RCLED13-8-NF	8	50/52	2600			0.26	32.00	256.00	665.60	0.10	13.00	104.00	270.40	395.20	0.00
15	1FL- Conf	P2L4-T8/LED2L4-10-L	2	50/52	2600			0.12	60.00	120.00	312.00	0.04	20.00	40.00	104.00	208.00	0.00
16	1FL- Main Entry	PM3L18CF/VLED2-15-NL-NF	2	50/52	2600	NLIGHT AIR		0.12	60.00	120.00	312.00	0.03	15.00	30.00	78.00	234.00	29.64
17	1FL- Vestibule	PM3L18CF/VLED2-15-NL-NF	2	50/52	2600	NLIGHT AIR		0.12	60.00	120.00	312.00	0.03	15.00	30.00	78.00	234.00	29.64
18	LL- Corr 1	W2L4-T8/LED2L4-10-L	4	50/52	2600			0.24	60.00	240.00	624.00	0.08	20.00	80.00	208.00	416.00	0.00
19	LL- Stg Corr	P2L2U6-T8/VLED2-16-KIT	1	50/52	2600			0.06	60.00	60.00	156.00	0.02	16.00	16.00	41.60	114.40	0.00
20	LL- Stg Corr	W2L4-T8/LED2L4-10-L	2	50/52	2600			0.12	60.00	120.00	312.00	0.04	20.00	40.00	104.00	208.00	0.00
21	LL- Stg	W2L4-T8/LED2L4-10-L	8	20/52	1040			0.48	60.00	480.00	499.20	0.16	20.00	160.00	166.40	332.80	0.00
22	LL- Elev Equipment	S1L4/LED1L4-10-L	1	10/52	520			0.05	50.00	50.00	26.00	0.01	10.00	10.00	5.20	20.80	0.00
23	LL- Mult P- Kit	W2L4-T8/LED2L4-10-L	1	20/52	1040			0.06	60.00	60.00	62.40	0.02	20.00	20.00	20.80	41.60	0.00
24	LL- Multipurpose	SM4L4-8F-T8/LED4L4-10-L	9	30/52	1560			1.01	112.00	1008.00	1572.48	0.36	40.00	360.00	561.60	1010.88	0.00
25	LL- Multipurpose	RC60I/LED6A-NL	16	30/52	1560			0.96	60.00	960.00	1497.60	0.10	6.00	96.00	149.76	1347.84	0.00
26	LL- Womens	P2L2U6-T8/VLED2-16-KIT	2	20/52	1040	E-MS		0.12	60.00	120.00	124.80	0.03	16.00	32.00	33.28	91.52	0.00
27	LL- Mens	P2L2U6-T8/VLED2-16-KIT	1	20/52	1040	E-MS		0.06	60.00	60.00	62.40	0.02	16.00	16.00	16.64	45.76	0.00
28	LL- Mech Rm	S2L4-T8/LED2L4-10-L	2	10/52	520			0.12	60.00	120.00	62.40	0.04	20.00	40.00	20.80	41.60	0.00
29	LL- Children's Library	P2L4-T8/VLED4-22-KIT	17	50/52	2600			1.02	60.00	1020.00	2652.00	0.37	22.00	374.00	972.40	1679.60	0.00
30	LL- Children's Library	TR18CF-R30/LED11R30-NL	8	50/52	2600			0.16	20.00	160.00	416.00	0.09	11.00	88.00	228.80	187.20	0.00
31	LL- Children's Library	RC2L14CF-8/RCLED13-8-NF	3	50/52	2600			0.10	32.00	96.00	249.60	0.04	13.00	39.00	101.40	148.20	0.00
32	LL- Children's Comp Rm	P2L4-T8/VLED4-22-KIT	1	50/52	2600			0.06	60.00	60.00	156.00	0.02	22.00	22.00	57.20	98.80	0.00
33	LL- Children's PO1	P2L4-T8/VLED4-22-KIT	1	40/52	2080			0.06	60.00	60.00	124.80	0.02	22.00	22.00	45.76	79.04	0.00
34	LL- Conf Rm	P2L4-T8/LED2L4-10-L	3	30/52	1560	WM5	1	0.18	60.00	180.00	280.80	0.06	20.00	60.00	93.60	187.20	28.08
35	LL- Back Stair	W2L4-T8/LED2L4-10-L	1	50/52	2600			0.06	60.00	60.00	156.00	0.02	20.00	20.00	52.00	104.00	0.00
36	LL- Back Stair	WM2L4-T8/LED2L4-10-L	1	50/52	2600			0.06	60.00	60.00	156.00	0.02	20.00	20.00	52.00	104.00	0.00
37	LL- Childrens	RC60I/LED6A-NL	2	50/52	2600			0.12	60.00	120.00	312.00	0.01	6.00	12.00	31.20	280.80	0.00
38	EXT- Entry	RC2L26CF-8/RCLED13-8-NF	10	84/52	4368			0.56	56.00	560.00	2446.08	0.13	13.00	130.00	567.84	1878.24	0.00
39	EXT- Right	WM70S/WPLED15-NF	1	84/52	4368			0.10	95.00	95.00	414.96	0.02	15.00	15.00	65.52	349.44	0.00
40	EXT- Back	WM70S/WPLED15-NF	1	84/52	4368			0.10	95.00	95.00	414.96	0.02	15.00	15.00	65.52	349.44	0.00
41	EXT- Stairs	SM70S/WPLED15-NF	1	84/52	4368			0.10	95.00	95.00	414.96	0.02	15.00	15.00	65.52	349.44	0.00
42	EXT- Meter Site	WM70S/WPLED15-NF	1	84/52	4368			0.10	95.00	95.00	414.96	0.02	15.00	15.00	65.52	349.44	0.00



																	
		Town of Ryegate - Library Room by Room Savings Analysis															
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	Control Type	Control Count	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Svs	Add'l kWh Svs
43	EXT- Front	RS60I/LED6A-NL	1	84/52	4368			0.06	60.00	60.00	262.08	0.01	6.00	6.00	26.21	235.87	0.00
44	EXT- Walk	BOLLED/REMAIN	6	84/52	4368			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	EXT- Drive	PT175MH/LED24-NL	5	84/52	4368			1.03	205.00	1025.00	4477.20	0.12	24.00	120.00	524.16	3953.04	0.00
			194				4	11.82			30312.88	3.55				21616.71	154.75
												8.27					21771.46

																	
		Town of Rye- Public Safety															
		Room by Room Savings Analysis															
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	OS Type	OS Count	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Svgs	Add'l kWh Svgs
1	LL- PD- RR	WM2L4-T8/LED2L4-10-L	1	25/52	1300	EMS		0.06	57.00	57.00	74.10	0.02	20.00	20.00	26.00	48.10	0.00
2	LL- PD- Corr	RCLED/REMAIN	1	25/52	1300			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	LL- PD- Processing	P2L2U6-T8/VLED2-16-KIT	1	25/52	1300	EMS		0.06	60.00	60.00	78.00	0.02	16.00	16.00	20.80	57.20	0.00
4	LL- PD- Finger Print	P2L2U6-T8/VLED2-16-KIT	6	25/52	1300	EMS		0.36	60.00	360.00	468.00	0.10	16.00	96.00	124.80	343.20	0.00
5	LL- PD- Cell 1	TP2L4-T8/LED2L4-10-L	1	15/52	780			0.06	60.00	60.00	46.80	0.02	20.00	20.00	15.60	31.20	0.00
6	LL- PD- Cell 2	TP2L4-T8/LED2L4-10-L	1	15/52	780			0.06	60.00	60.00	46.80	0.02	20.00	20.00	15.60	31.20	0.00
7	LL- PD- Cell 2	RC26CF-8/RCLED13-8-NF	1	15/52	780			0.03	28.00	28.00	21.84	0.01	13.00	13.00	10.14	11.70	0.00
8	LL- PD- Sally Port	VT4L4-8F-T8/LED4L4-10-L	4	50/52	2600	EMS		0.45	112.00	448.00	1164.80	0.16	40.00	160.00	416.00	748.80	0.00
9	LL- PD- Sally Port	VT2L4-T8/LED2L4-10-L	1	50/52	2600			0.06	60.00	60.00	156.00	0.02	20.00	20.00	52.00	104.00	0.00
10	EXT- PD- Sally Port	WM100S/LED24-NL	1	84/52	4368			0.13	130.00	130.00	567.84	0.02	24.00	24.00	104.83	463.01	0.00
11	1FL- PD- Interview	P2L2U6-T8/VLED2-16-KIT	2	25/52	1300	EMS		0.12	60.00	120.00	156.00	0.03	16.00	32.00	41.60	114.40	0.00
12	1FL- PD- Admin Asst	P2L2U6-T8/VLED2-16-KIT	4	50/52	2600	EMS		0.24	60.00	240.00	624.00	0.06	16.00	64.00	166.40	457.60	0.00
13	1FL- PD- Chief PO	P2L2U6-T8/VLED2-16-KIT	4	50/52	2600	EMS		0.24	60.00	240.00	624.00	0.06	16.00	64.00	166.40	457.60	0.00
14	1FL- PD- Officer's Rm	P2L2-T8/VLED2-16-KIT	6	60/52	3120	EMS		0.22	37.00	222.00	692.64	0.10	16.00	96.00	299.52	393.12	0.00
15	1FL- PD- Evidence H2	P2L2U6-T8/VLED2-16-KIT	2	15/52	780	EMS		0.12	60.00	120.00	93.60	0.03	16.00	32.00	24.96	68.64	0.00
16	1FL- PD- Armory	P2L2U6-T8/VLED2-16-KIT	1	15/52	780	EMS		0.06	60.00	60.00	46.80	0.02	16.00	16.00	12.48	34.32	0.00
17	1FL- PD- Lieutenant	P2L2U6-T8/VLED2-16-KIT	3	50/52	2600	EMS		0.18	60.00	180.00	468.00	0.05	16.00	48.00	124.80	343.20	0.00
18	1FL- PD- Super	P2L2U6-T8/VLED2-16-KIT	2	50/52	2600	EMS		0.12	60.00	120.00	312.00	0.03	16.00	32.00	83.20	228.80	0.00
19	1FL- PD- Reports	P2L2U6-T8/VLED2-16-KIT	2	50/52	2600	EMS		0.12	60.00	120.00	312.00	0.03	16.00	32.00	83.20	228.80	0.00
20	LL- Stair	WS2L26CF/WSLED14-NF	17	60/52	3120			0.95	56.00	952.00	2970.24	0.24	14.00	238.00	742.56	2227.68	0.00
21	LL- Corr	RCLED/REMAIN	1	25/52	1300			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	LL- Janitor	S2L4-T8/LED2L4-10-L	1	15/52	780	EMS		0.06	60.00	60.00	46.80	0.02	20.00	20.00	15.60	31.20	0.00
23	LL- Men's Locker	RC32CF-8/RCLED13-8-NF	8	50/52	2600			0.27	34.00	272.00	707.20	0.10	13.00	104.00	270.40	436.80	0.00
24	LL- Men's Shower	RC26CF-8/LED9-NL	4	15/52	780			0.11	28.00	112.00	87.36	0.04	9.00	36.00	28.08	59.28	0.00
25	LL- Men's RR	RC32CF-8/LED9-NL	1	50/52	2600			0.03	34.00	34.00	88.40	0.01	9.00	9.00	23.40	65.00	0.00
26	LL- Men's Locker	WM2L4-T8/LED2L4-10-L	1	50/52	2600	EMS		0.06	60.00	60.00	156.00	0.02	20.00	20.00	52.00	104.00	0.00
27	LL- Women's Locker	RC32CF-8/RCLED13-8-NF	8	50/52	2600			0.27	34.00	272.00	707.20	0.10	13.00	104.00	270.40	436.80	0.00
28	LL- Women's Shower	RC26CF-8/LED9-NL	4	15/52	780			0.11	28.00	112.00	87.36	0.04	9.00	36.00	28.08	59.28	0.00
29	LL- Women's RR	RC32CF-8/LED9-NL	1	50/52	2600			0.03	34.00	34.00	88.40	0.01	9.00	9.00	23.40	65.00	0.00
30	LL- Women's Locker	WM2L4-T8/LED2L4-10-L	1	50/52	2600	EMS		0.06	60.00	60.00	156.00	0.02	20.00	20.00	52.00	104.00	0.00
31	LL- Elevator	RC32CF-8/RCLED13-8-NF	1	168/52	8736			0.03	34.00	34.00	297.02	0.01	13.00	13.00	113.57	183.46	0.00
32	LL- Server	P2L2U6-T8/VLED2-16-KIT	2	25/52	1300	EMS		0.12	60.00	120.00	156.00	0.03	16.00	32.00	41.60	114.40	0.00
33	LL- Training	RCLED/REMAIN	1	25/52	1300			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	LL- Archives	W2L4-T8/LED2L4-10-L	4	50/52	2600	EMS		0.24	60.00	240.00	624.00	0.08	20.00	80.00	208.00	416.00	0.00
35	LL- Record Stg	W2L4-T8/LED2L4-10-L	4	50/52	2600	EMS		0.24	60.00	240.00	624.00	0.08	20.00	80.00	208.00	416.00	0.00
36	LL- PD- Training	PM6L4-12F-T8/LED6L4-10-L	6	30/52	1560			1.33	222.00	1332.00	2077.92	0.36	60.00	360.00	561.60	1516.32	0.00
37	LL- PD- Training	RCLED/REMAIN	8	30/52	1560			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	LL- PD- PO	P2L2U6-T8/VLED2-16-KIT	2	50/52	2600			0.12	60.00	120.00	312.00	0.03	16.00	32.00	83.20	228.80	0.00
39	LL- PD- Men's	WM2L4-T8/LED2L4-10-L	1	25/52	1300			0.06	60.00	60.00	78.00	0.02	20.00	20.00	26.00	52.00	0.00
40	LL- PD- Women's	WM2L4-T8/LED2L4-10-L	1	25/52	1300			0.06	60.00	60.00	78.00	0.02	20.00	20.00	26.00	52.00	0.00
41	LL- PD- Kitchen	P2L2U6-T8/VLED2-16-KIT	4	50/52	2600	EMS		0.24	60.00	240.00	624.00	0.06	16.00	64.00	166.40	457.60	0.00



		Room by Room Savings Analysis																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</
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		Town of Rye- Public Safety															
		Room by Room Savings Analysis															
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	OS Type	OS Count	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Svgs	Add'l kWh Svgs
83	EXT- Flag	FLLED/REMAIN	2	84/52	4368			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	EXT- Fire Door	WP500H/WPLED57-NF	1	84/52	4368			0.50	500.00	500.00	2184.00	0.06	57.00	57.00	248.98	1935.02	0.00
85	EXT- Fire Door	WM70MH/LED24-NL	2	84/52	4368			0.19	95.00	190.00	829.92	0.05	24.00	48.00	209.66	620.26	0.00
86	EXT- Right	WM60/LED6A-NL	1	84/52	4368			0.06	60.00	60.00	262.08	0.01	6.00	6.00	26.21	235.87	0.00
87	EXT- Right	WM70MH/LED24-NL	1	84/52	4368			0.10	95.00	95.00	414.96	0.02	24.00	24.00	104.83	310.13	0.00
88	EXT- Parking	SBLED/REMAIN	3	84/52	4368			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	EXT- Parking	WM500H/WPLED57-NF	1	84/52	4368			0.50	500.00	500.00	2184.00	0.06	57.00	57.00	248.98	1935.02	0.00
90	EXT- Walk 2	BOLLED/REMAIN	2	84/52	4368			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	EXT- Back	WM60/LED6A-NL	3	84/52	4368			0.18	60.00	180.00	786.24	0.02	6.00	18.00	78.62	707.62	0.00
92	EXT- Side Park	PTLED/REMAIN	2	84/52	4368			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			273				1	18.08			41596.20	5.62				29587.69	87.36
												12.46					29675.05



															
		Town of Rye- Town Hall													
		Room by Room Savings Analysis													
Line	Room	EMC CM Code	Count	Hours/Week	Hours/Year	OS Type	Curr kW	Curr I/W	Curr Watts	Curr kWh	Prop kW	Prop I/W	Prop Watts	Prop kWh	kWh Svgs
1	2FL- Open	CHLED/REMAIN	4	40/52	2080		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2FL- Open	TR18CF-R30/LED11R30-NL	36	40/52	2080		0.72	20.00	720.00	1497.60	0.40	11.00	396.00	823.68	673.92
3	2FL- Side PO	W4L4-T8/LED4L4-10-L	2	40/52	2080		0.22	112.00	224.00	465.92	0.08	40.00	80.00	166.40	299.52
4	2FL- Side Stg	SM14CF/LED6A-NL	7	40/52	2080		0.11	16.00	112.00	232.96	0.04	6.00	42.00	87.36	145.60
5	2FL- Manager Po	T2L2U6-T8/VLED2-16-KIT	6	40/52	2080		0.36	60.00	360.00	748.80	0.10	16.00	96.00	199.68	549.12
6	2FL- Mech	W2L4-T8/LED2L4-10-L	1	40/52	2080		0.06	60.00	60.00	124.80	0.02	20.00	20.00	41.60	83.20
7	2FL- Open	TR14CF-R20/LED10R20-NL	3	40/52	2080		0.05	16.00	48.00	99.84	0.03	10.00	30.00	62.40	37.44
8	2FL- Side Stair 1	W2L4-T8/LED2L4-10-L	1	40/52	2080		0.06	60.00	60.00	124.80	0.02	20.00	20.00	41.60	83.20
9	2FL- Side Stair 1	SM14CF/LED6A-NL	1	40/52	2080		0.02	16.00	16.00	33.28	0.01	6.00	6.00	12.48	20.80
10	2FL- RR	WM4L14CF/LED4L6A-NL	1	20/52	1040		0.06	64.00	64.00	66.56	0.02	24.00	24.00	24.96	41.60
11	2FL- Side Stair 2	W2L4-T8/LED2L4-10-L	1	40/52	2080		0.06	60.00	60.00	124.80	0.02	20.00	20.00	41.60	83.20
12	2FL- Side Stair 2	SM26CF/LED11A-NL	2	40/52	2080		0.06	28.00	56.00	116.48	0.02	11.00	22.00	45.76	70.72
13	1FL- Stair	SM2L14CF/LED2L6A-NL	1	40/52	2080		0.03	32.00	32.00	66.56	0.01	12.00	12.00	24.96	41.60
14	1FL- Corr 1	T4L4-T8/VLED4-22-KIT	2	40/52	2080		0.22	112.00	224.00	465.92	0.04	22.00	44.00	91.52	374.40
15	1FL- Kit	T4L4-T8/VLED4-22-KIT	1	40/52	2080	EMS	0.11	112.00	112.00	232.96	0.02	22.00	22.00	45.76	187.20
16	1FL- Corr 1	W2L4-T8/LED2L4-10-L	1	40/52	2080		0.06	60.00	60.00	124.80	0.02	20.00	20.00	41.60	83.20
17	1FL- Town Clerk	W4L4-T8/LED4L4-10-L	2	40/52	2080		0.22	112.00	224.00	465.92	0.08	40.00	80.00	166.40	299.52
18	1FL- Town Clerk	W2L4-T8/LED2L4-10-L	2	40/52	2080		0.12	60.00	120.00	249.60	0.04	20.00	40.00	83.20	166.40
19	1FL- Building Insp	W4L4-T8/REMOVE	5	40/52	2080		0.56	112.00	560.00	1164.80	0.00	0.00	0.00	0.00	1164.80
20	1FL- Building Insp	T2L2U6-T8/VLED2-16-KIT	1	40/52	2080		0.06	60.00	60.00	124.80	0.02	16.00	16.00	33.28	91.52
21	1FL- Building Insp	VLED2-15-NF/INSTALL	5	40/52	2080		0.00	0.00	0.00	0.00	0.08	15.00	75.00	156.00	-156.00
22	1FL- Files	W2L4-T8/LED2L4-10-L	4	40/52	2080		0.24	60.00	240.00	499.20	0.08	20.00	80.00	166.40	332.80
23	1FL- Meeting	W4L4-T8/LED4L4-10-L	4	20/52	1040		0.45	112.00	448.00	465.92	0.16	40.00	160.00	166.40	299.52
24	1FL- Planning	T4L4-T8/VLED4-22-KIT	2	40/52	2080		0.22	112.00	224.00	465.92	0.04	22.00	44.00	91.52	374.40
25	1FL- Planning	T2L2U6-T8/VLED2-16-KIT	2	40/52	2080		0.12	60.00	120.00	249.60	0.03	16.00	32.00	66.56	183.04
26	1FL- Entry	SM2L60/LED2L6A-NL	1	40/52	2080		0.12	120.00	120.00	249.60	0.01	12.00	12.00	24.96	224.64
27	EXT- Main	RS60/LED6A-NL	1	84/52	4368		0.06	60.00	60.00	262.08	0.01	6.00	6.00	26.21	235.87
28	EXT- Meter Wall	FL2L90PAR38/LED2L15PAR38-NL	1	84/52	4368		0.18	180.00	180.00	786.24	0.03	30.00	30.00	131.04	655.20
29	EXT- Letter Board	SM1L4/LED1L4-10-L	1	84/52	4368		0.05	50.00	50.00	218.40	0.01	10.00	10.00	43.68	174.72
30	EXT- Back	WM60/SMLED14-12-NF	1	84/52	4368		0.06	60.00	60.00	262.08	0.01	14.00	14.00	61.15	200.93
31	EXT- Front	FL150H/FLLED41-NF	1	84/52	4368		0.15	150.00	150.00	655.20	0.04	41.00	41.00	179.09	476.11
			103				4.82			10645.44	1.49				7498.19
											3.33				

[illegible]



Financial Investment

Cost-Savings Summary



										
Prepared by Carl Edin										
February 21, 2019										
Area	Savings		Energy	Maint	Total	Project	Estimated Eversource	Net Project	Payback	ROI
	kW	kWh	Savings	Savings	Savings	Cost	Incentive	Cost		
Highway Dept.	3	5,743	\$ 1,269.20	\$ 176.00	\$ 1,445.20	\$ 5,915.00	\$ 2,957.50	\$ 2,957.50	2.05	48.9%
Library	8	21,771	\$ 4,180.03	\$ 973.00	\$ 5,153.03	\$ 22,120.00	\$ 11,060.00	\$ 11,060.00	2.15	46.6%
Public Safety	12	29,675	\$ 4,510.60	\$ 1,363.00	\$ 5,873.60	\$ 32,699.00	\$ 15,466.00	\$ 17,233.00	2.93	34.1%
Recycling & Swap	2	3,935	\$ 747.65	\$ 107.00	\$ 854.65	\$ 2,971.00	\$ 1,485.50	\$ 1,485.50	1.74	57.5%
Town Hall	3	7,498	\$ 1,252.17	\$ 512.00	\$ 1,764.17	\$ 7,393.00	\$ 3,696.50	\$ 3,696.50	2.10	47.7%
TOTALS	28	68,622	\$ 11,959.65	\$ 3,131.00	\$ 15,090.65	\$ 71,098.00	\$ 34,665.50	\$ 36,432.50	2.41	41.4%
Notes:										
1. Estimated blended rate varies between \$.152-\$.221/kWh										
2. Eversource incentives to be approved.										

EVERSOURCE



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

