



SOMERVILLE, ME (CMP) "SMART READY" LED STREETLIGHT CONVERSION PROPOSAL

Updated: Mar. 23, 2020



Municipality Account Number
Somerville, ME 3501-1054-422

ANNUAL HOURS
4,260

ELECTRIC SUPPLY
\$0.073037
per kwh

RATE SL - DELIVERY ONLY SERVICE ELECTRIC SUPPLY*
\$0.049367 \$0.073037
per kwh per kwh

MUNICIPAL STREET LIGHTING SUMMARY

| Current Lighting Description | Fixture Qty |
|--|-------------|
| | 2 |
| 70HPS ENCLOSED COBRA | 1 |
| 70HPS CUT OFF COBRA | 1 |
| OTHER EQUIPMENT (poles/brackets, etc) | |
| | 2 |

| Existing Rated Watts | ANNUAL kWh per fixture | TOTAL ANNUAL KWH | DELIVERY CHARGES | ELECTRIC SUPPLY | ANNUAL Cost Per Fixture | TOTAL ANNUAL COST |
|----------------------------|------------------------------|------------------------|---|---|-------------------------------|-------------------------|
| | | | <div>Delivery Service</div> <div>Lighting Equipment</div> | 355 monthly hrs X fixture rated watts/1000 X electric rate per kwh | | |
| | | | <div>RATE SL Monthly Rate Per Luminaire</div> <div>RATE SL Monthly Rate Per Luminaire</div> | | | |
| 95 | 405 | 405 | \$1.30 | \$9.67 | \$2.46 | \$161.20 |
| 95 | 405 | 405 | \$1.92 | \$9.04 | \$2.46 | \$161.08 |
| | | | | monthly | \$0.00 | \$0 |
| | | 809 | | | | \$322 |

| PROPOSED LED LIGHTING | | | | | | | | | | | | | | | |
|------------------------------|-----------------------|---------------------------|---------------------|------------------------------------|--|-------------------------------|----------------------|-----------------------|------------|-----------------------|------------|---------------------|---------------|------------------------------------|----------|
| Models | LED Rated Watts | ANNUAL kWh per fixture | TOTAL ANNUAL KWH | DELIVERY SERVICE ONLY | ELECTRIC SUPPLY | ANNUAL Cost Per Fixture | TOTAL ANNUAL COST | FUSEHOLDER KIT & FUSE | | INSTALLATION SERVICES | | EQUIPMENT | | ALL-IN EQUIPMENT & INSTALLATION | |
| | | | | 355 hrs X above rate per kwh | 355 monthly hrs X fixture rated watts/1000 X above rate per kwh | | | Cost per Fixture | TOTAL COST | Cost per Fixture | TOTAL COST | Cost per Fixture | TOTAL COST | | |
| Affinity S900D-18W-30K-T2-GR | 18 | 77 | 77 | \$0.32 | \$0.47 | \$9.39 | \$9 | \$52.00 | \$52.00 | \$217.98 | \$217.98 | \$153.00 | \$153.00 | \$422.98 | \$422.98 |
| Affinity S900D-18W-30K-T2-GR | 18 | 77 | 77 | \$0.32 | \$0.47 | \$9.39 | \$9 | \$52.00 | \$52.00 | \$217.98 | \$217.98 | \$153.00 | \$153.00 | \$422.98 | \$422.98 |
| | | | | | monthly | \$0.00 | \$0 | | | | | | | | |
| | | | 153 | | | | \$19 | avg | \$104 | avg | \$436 | avg | \$306 | avg | \$846 |

| ANNUAL ENERGY SAVINGS (kwh) | ANNUAL OPEX SAVINGS |
|-----------------------------|---------------------|
| (656) | (\$304) |
| -81.1% | -94.2% |
| LONG TERM ENERGY SAVINGS | LONG TERM SAVINGS |
| 5 Years (3,280) | 5 Years (\$1,518) |
| 10 Years (6,560) | 10 Years (\$3,035) |
| 20 Years (13,121) | 20 Years (\$6,070) |

| ANNUAL CO2 EMISSIONS REDUCTION | SHORT TERM CUMULATIVE ROI |
|-----------------------------------|---------------------------|
| 1,076 lbs 0.5 tons | Year 1 (\$687) -81.3% |
| | Year 2 (\$384) -45.4% |
| | Year 3 (\$80) -9.5% |
| | Year 4 \$223 26.4% |
| | Year 5 \$527 62.2% |
| LONG TERM CO2 EMISSIONS REDUCTION | LONG TERM CUMULATIVE ROI |
| 5 Years 5,382 lbs 2.7 tons | Year 10 \$2,044 241.6% |
| 10 Years 10,764 lbs 5.4 tons | Year 20 \$5,079 600.4% |
| 20 Years 21,528 lbs 10.8 tons | |

| 10 YEAR CAPEX CUMULATIVE IMPACT |
|---------------------------------|
| Year 1 \$204 Profit |
| Year 2 \$409 Profit |
| Year 3 \$613 Profit |
| Year 4 \$818 Profit |
| Year 5 \$1,022 Profit |

| without NETWORKED LIGHTING CONTROLS | | |
|---|--------|---------|
| ALL-IN EQUIP & INSTALLATION | | \$846 |
| NET BOOK VALUE** | | \$145 |
| TOTAL PROJECT COST | | \$991 |
| ANNUAL OPEX SAVINGS | | (\$304) |
| SIMPLE PAYOFF | Years | 3.27 |
| | Months | 39.2 |
| ** Net Book Value provided by Town of Bristol | | |