

## EEM 1 Lighting Upgrade

### EXISTING CONDITIONS

The general lighting consists of 282 fixtures suspended from the ceiling with compact fluorescent fixtures in each, with an estimated 168 Watt per fixture.

### PROPOSED MEASURE DESCRIPTION

Replace existing with LED lighting in each fixture. Replacement fixtures estimated to have 84 watt per fixture.

### CALCULATIONS

Energy (kWh) = Fixture Watt/1000 x No. of Fixtures x "ON" Hrs per year

Demand (kW) = Lighting total Watt/1000 kW/Watt

Hours "ON" is assumed to be 3380 hours per year.

Estimated Cost = \$200/Fixture and \$80/hr labor cost for 44 hours.

Simple Payback = Cost/Annual Savings

Electrical Cost = \$.06/kWh

Demand Cost = \$3.05/kW

| EEM #1 Estimated Savings               |                                     |           |
|----------------------------------------|-------------------------------------|-----------|
| Annual Energy Usage & Savings Estimate | Existing Electric Usage (kWh)       | 241428    |
|                                        | Proposed Electric Usage (kWh)       | 120714    |
|                                        | Electric Savings (kWh)              | 120714    |
|                                        | Electric Cost Savings (\$)          | \$ 7,243  |
|                                        | Demand Savings (kW)                 | 24        |
|                                        | Electric Demand Savings (\$)        | \$ 72     |
|                                        | Existing Natural Gas Usage (Therms) | NA        |
|                                        | Proposed Natural Gas Usage (Therms) | NA        |
|                                        | Natural Gas Savings (Therms)        | NA        |
|                                        | Natural Gas Savings (\$)            | NA        |
|                                        | Annual Energy Cost Savings          | \$ 7,315  |
| Measure Cost & Simple Payback          | Project Cost                        | \$ 59,920 |
|                                        | Simple Payback (Cost/Savings)       | 8.2       |