



Project Summary

Revolution Lighting Technologies (RVLT) was approached to provide a solution for a small-town grocery store in Eden, Utah. RVLT products were chosen due to their value and superior product performance and quality. The project was awarded on the overall value of the fixtures and performance based on uniformity, low glare, ease of installation and energy consumption.

End User: Valley Market – Eden, Utah

Application: Grocery Market Complete Retrofit

- Products:**
- 4' LED tubes – 15W, 18W, 22W
 - 5' LED tubes – 22W
 - PAR30 LED spotlights

- Benefits:**
- 60% reduction in energy use over existing lighting
 - Increased light level visibility by 25%
 - Increased color rendering and appearance of items
 - Maximized long-term energy and maintenance savings

Project Overview



The project included retrofit installs in all areas of the facility including the office spaces. Fixtures were retrofitted using 4' and 5' tubes as well as PAR lamps in the track system in the produce area. The total project cost \$46,749, and Rocky Mountain Power gave incentives of \$16,623. This retrofit will result in a 60% annual energy savings. Two of our LED tubes make the area look far better than the previous three conventional tubes per fixture. In the freezer areas, the cost savings will be significant because there is no longer an issue of overcoming the heat of conventional tubes.

Pounds of Coal Saved @ 0.08 lbs. per kWh	21,041 lbs.
Gallons of Oil Saved @ 0.07 gallons per kWh	18,412 gals
Pounds of Carbon Dioxides Saved @ 1.95 lbs. per kWh	512,887 lbs.
Pounds of Sulfur Dioxides Saved @ 0.008477 lbs. per kWh	2,230 lbs.
Pounds of Nitrogen Oxides Saved @ 0.004092 lbs. per kWh	1,075 lbs.



Project Overview (con't)

For this project, we worked with the customer to find a solution to lighting issues related to the current fluorescent product used in the store's meat cases. The conventional tubes were flickering, burning out, and turning yellow. The result was a far from optimal effect, and the product in the meat cases did not show well. After replacing the traditional fluorescent tubes with the RVLT LED tubes, the meat shelves are now showcased in a clean, clear, crisp light.



The warm white shows the product very well, and the elimination of dangerous UV light allows the meat to remain fresh for much longer periods of time.

Tom Ferguson, Valley Market owner, added, "We're saving money on the electric bill every month, and we haven't had an electrician out to change a ballast since we upgraded to the Seesmart LED tubes."

Cost Analysis

Annual LED Sample Life-Cycle Cost Analysis

Existing Fixtures	Number	Energy Use (kWh)	Cost/Unit	Total Cost
4' 40W tubes @ 8,760 hrs/yr	871	305,198	\$ 0.10	\$ 30,520
2' 25W tubes @ 8,760 hrs/yr	10	2,190	\$ 0.10	\$ 219
5' 80W tubes @ 8,760 hrs/yr	51	35,741	\$ 0.10	\$ 3,574
75W PAR30 @ 8,760 hrs/yr	12	7,884	\$ 0.10	788
Maintenance	-	-		\$ 17,000
Total Costs for Period				\$ 52,101

Replacement Fixtures	Number	Energy Use (kWh)	Cost/Unit	Total Cost
4' 15W tubes @ 8,760 hrs/day	581	76,343	\$ 0.10	\$ 7,634
2' 10W tubes @ 8,760 hrs/yr	10	879	\$ 0.10	\$ 88
5' 22W tubes @ 8,760 hrs/yr	51	9,829	\$ 0.10	\$ 983
9W PAR30 @ 8,760 hrs/day	12	946	\$ 0.10	\$ 95
Maintenance	-	-	-	\$ 50
Total Costs for Period				\$ 8,805

Savings	Savings
Energy Savings	\$ 26,301
Maintenance Savings (est.)	\$ 16,500
Total Savings LED Fixtures	\$ 42,801

Using RVLT LED fixtures, results in an overall savings of 60% annually. The facility has already realized energy rebates of \$16,623. Utilizing the grant funding, the savings in energy costs, and additional estimated maintenance savings, the project will have a projected simple payback of less than 2 years.

Visit rvlti.com for more information.