



Wrangell's LED Street Light Conversion Final Savings Analysis

February 15, 2013

Background Information

Thanks to a generous grant from the Wrangell Cooperative and two grants from the Alaska Energy Authority, Wrangell Municipal Light & Power was able to change out all of the existing street lights in our system to energy efficient LED fixtures.

We received the fixtures in January of 2012 and started installing them with the last one being installed at the end of December 2012.

Wrangell Municipal Light & Power in kind contribution was over 630 man hours and over 315 hours of truck time amounting to approximately \$56,000.

Background Information

Total of the grants from Wrangell Cooperative and the first AEA grant were \$148,400.00. After a bid award to Sea Tac Lighting on October 17th we placed the order for the new lights. Original order was for LED60E lights 75 each at a cost of \$479.00 each and LED40E lights 237 each at a cost of \$367.00 each with \$2,500.00 set aside for shipping from Seattle to Wrangell.

In July we were informed that AEA had additional funds available. We applied and were granted the second grant for \$25,000 to purchase the remaining 75 LED40E fixtures at \$320.00 each, this completed our system conversion.

AEA Grants were written by Valerie Biastoch, who also did the research into LED Fixtures.

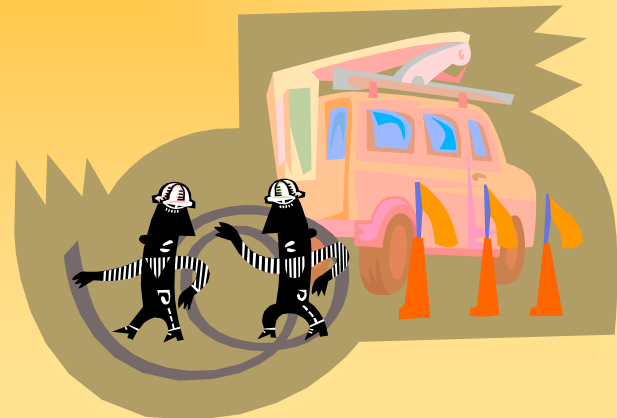


Changes made by the Wrangell Municipal Light & Power Line Crew

New LED Lights	Stock	Installed
LED40E	0	336
LED60E	6	94
LED Total	6	430

Wrangell Street Lights	Removed
150 HPS	-225
175 MV	-77
180 LPS	-7
250 HPS	-51
400 MV	-6
400 HPS	-34
Total	-400

Many THANKS go to
Dwight Yancey, Mark Armstrong,
Ron Paul and David Joseph



These charts demonstrate dollar amounts paid for the previous street lights. I had to go back to F/Y 2010/2011 to get an accurate amount for the old lights. Starting in F/Y 2011/2012 we began installing the new LED lights. We completed installation in December of 2012.

F/Y 10/11	July	August	September	October	November	December	January	February	March	April	May	June	Total
All Regular	2,347.03	2,657.79	3,749.69	4,333.05	5,072.32	5,732.01	5361.28	5172.66	3695.98	3504.12	2630.3	2259.32	\$46,515.55

F/Y 11/12	July	August	September	October	November	December	January	February	March	April	May	June	Total
Regular	2,347.03	2,657.79	3,749.69	4,333.05	5,072.32	5,732.01	5,903.47	5,903.47	2,710.73	2,498.57	1,518.76	1,375.62	\$43,802.51
LED							115.72	115.72	403.12	472.49	548.58	323.89	\$1,979.52
												F/Y 11/12	\$ 45,782.03

F/Y 12/13	July	August	September	October	November	December	January	February	March	April	May	June	Total
Regular	1,216.25	499.93	838.88	949.55	989.46	693.86							\$5,188.33
LED	323.89	656.38	997.27	1,082.86	1,417.89	1,607.2	1,473.22	1,410.56	1,083.21	989.71	818.26	696.70	\$12,557.15
												FY 12/13	\$17,745.48

F/Y 13/14	July	August	September	October	November	December	January	February	March	April	May	June	F/Y 13/14
All LED	696.70	835.43	1,278.09	1,371.58	1,733.27	1,914.00	1,473.22	1,410.56	1,083.21	989.71	818.26	696.70	\$14,300.73

Savings Analysis

2010/2011 All regular street lights total was \$46,515.55

2011/2012 Started installing LED's total was \$45,782.03


Savings after installing some LED's was \$733.52

2012/2013 All LED's installed total will be \$17,745.48

Total savings will be \$28,770.07

All 430 LED's F/Y 2013/2014 total will be \$14,300.73

For a savings of.....

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Wrangell Street Light Conversion
Total Savings for the City
\$32,221.82
Annually