

Program #91028 - Upgrade Street Lights on Two Bridges to LED

4/21/2014

Department: Community Services
Program Offer Type: Innovative/New Program
Related Programs: 91015, 91016, 91018
Program Characteristics: One-Time-Only Request

Program Contact: Ian Cannon
Program Offer Stage: As Proposed

Executive Summary

The Willamette River Bridges have hundreds of street lights that enhance user safety during dark hours. Many of the fixtures are old and less energy efficient and less reliable than current lights. This program offer replaces the inefficient fixtures on the Morrison and Hawthorne Bridges and approach structures with new energy efficient LED fixtures. This will yield lower energy costs, lower maintenance costs, and improved safety for users. Work will be completed within FY2015.

Program Summary

The new LED fixtures use 40 to 50 percent less electricity than the existing street lights, resulting in approximately \$22,000 annual electricity savings (\$11,000 on each bridge).

The bulbs last four to five times longer, reducing the number of bulbs that must be replaced annually and reducing the labor to replace the bulbs, which generates additional annual savings of \$19,600 (\$9,800 per bridge). In addition, fewer lane closures will be necessary, resulting in improved traffic flow, safer traffic flow, and less hazard to employees.

The LED fixtures generate a whiter light than the existing high pressure sodium bulbs which improves nighttime visibility, enhances safety, and improves the user experience.

Work will be completed using County forces.

Performance Measures

Measure Type	Primary Measure	FY13 Actual	FY14 Purchased	FY14 Estimate	FY15 Offer
Output	Number of fixtures replaced	0	0	0	218
Outcome	Measure energy consumption savings	0	0	0	40%

Performance Measures Descriptions

This program's success will be determined by the number of fixtures installed. We expect to replace every fixture on the Hawthorne and Morrison bridges, 218 in total, within FY2015. An additional metric is to determine the difference in energy consumed before and after installation, with an assumed savings of 40%.

Legal / Contractual Obligation

Multnomah County is required to maintain and operate its drawbridges in accordance with the River and Harbor Act of 1894, federal regulations (USC 117.750), U.S. Coast Guard regulations (CFR Title 33), State Law (ORS 382.305), 1984 IGA with the City of Portland as amended in 1989, and HB 2041 Section 3a.

Revenue/Expense Detail

	Proposed General Fund	Proposed Other Funds	Proposed General Fund	Proposed Other Funds
Program Expenses	2014	2014	2015	2015
Contractual Services	\$0	\$0	\$0	\$60,000
Materials & Supplies	\$0	\$0	\$0	\$110,000
Internal Services	\$0	\$0	\$0	\$4,521
Total GF/non-GF	\$0	\$0	\$0	\$174,521
Program Total:	\$0		\$174,521	
Program FTE	0.00	0.00	0.00	0.00

Program Revenues				
Indirect for Dept. Admin	\$0	\$0	\$2,145	\$0
Financing Sources	\$0	\$0	\$0	\$174,521
Total Revenue	\$0	\$0	\$2,145	\$174,521

Explanation of Revenues

Revenue for this program offer will come entirely from the Asset Replacement Revolving Fund. This fund will be replenished as the return of investment is recognized.

Significant Program Changes

Last Year this program was: