ALL THIS FOR $3.73

There’s no need to read the fine print. Salt Lake City doesn’t try to hide, bury or otherwise dodge the cost of street lighting to its residents. And yes, we can call it a “user fee” or a “tax”—let’s be honest, there’s no difference.

Back in 2010, Salt Lake City, like many U.S. municipalities, was in a pickle. The Great Recession had drained the city’s General Fund (from which lighting maintenance was paid for), and the city chose to let some streetlights burn out in order to fund other needs, such as police and schools. But as the outages mounted, the city eventually said “no more.”

‘Unlike water, which is easy to measure, how do you measure the amount of light a person uses or enjoys?’ Pearson writes.

Using a tiered system, Salt Lake calculated the minimum cost of street lighting to be $3.73 per Equivalent Resident Unit (ERU) per month (one ERU equals 75 ft of street frontage). And that charge is fully displayed to taxpayers. “The lighting fee is a line item on the monthly utility bill with the water, sewer and storm utilities,” says Pearson.

Pearson admits there have been some objections. “Of course we’ve seen our fair share of complaints about the new fee, but we have the backing of the City Council and City Attorney.”

Maybe light isn’t water, but Salt Lake City citizens can now look out the window and see what $3.73 can buy. Let’s hope they think it’s worth at least that much.

Paul Tarricone Editor and Publisher ptarricone@ies.org
You Can Put a Price on Street Lighting

How a creative funding strategy helped Salt Lake City get the lights back on

BY DAVE PEARSON

As street lighting manager for Salt Lake City, there’s nothing more exciting than seeing the lighting technology advancements that have come in the past few years. I’m sure all of us would love to just do away with the legacy lights in our cities and install the latest and greatest; but funding those upgrades is always a problem. Salt Lake City, however, has developed an interesting way to fund street lighting maintenance and operations that allows us to do just that.

In late 2010, Salt Lake City, like countless other municipalities, was facing a financial crisis. Streetlights were paid for through budget allocations from the General Fund, but over the years more and more of those funds were dedicated for fire and police protection, schools, and city-wide capital improvements such as street and sidewalk repairs. In an effort to get the city back in the black, Salt Lake City made the decision to let some streetlights burn out. It was too expensive to turn them off, but there was a savings in not maintaining the lights. Operations and maintenance costs went down. The lights not being maintained would function until something happened such as a burnt-out bulb, wiring problem, etc. When that occurred, the affected lights would remain out indefinitely until the budget was restored. Some of the more critical intersection lights were repaired, but mid-block and lights on non-arterial streets were left dark.

In 2011, the city council determined the lights were going out faster than they anticipated. And this was becoming a problem, as the to-do list for street lighting repairs was getting longer and longer. Soon, 18 percent of our approximately 15,500 lights were dark. That is where Salt Lake City was in 2012. The recession was in full force and nobody was in a mind-set to burden tax payers to solve the problem.

WHAT’S A CITY TO DO?

So picture yourself as an elected official. You have a street lighting system that is looking very shabby. You don’t have enough revenues to provide all of the promised services and even keep up with the maintenance of the functioning lights, let alone repair the non-functioning lights. What do you do? The idea was to take the lighting program out of the General Fund portfolio altogether. But who could you give a failing system to and not have to pay them to fix it? The answer is to send it to a utility and make an Enterprise Fund out of it (Figure 1). So, in January of 2012 Salt Lake City street lighting moved from the General Fund’s transportation division to the public utilities department that administered the water, sewer and storm-water programs for the city.
The Mayor and City Council directed the Department of Public Utilities to hire a consultant to study the issue and lead a public process. This consultant created a committee of business owners, residents and local politicians to help determine a way to gather funds for lighting maintenance and operations. The committee decided to focus on the concept of fairness. They determined that every property owner benefits from functioning, efficient, dependable street lighting. Whether children are walking to school early in the morning or you have to make a late-night grocery run, everybody benefits from streetlights. It doesn’t matter if there is a light directly in front of the property or not. Commercial and retail properties benefit from lighting depending on their street footage. Tax-exempt properties also benefit from good lighting.

The committee determined that a fee-based fund could be collected for a dedicated purpose and not rolled into the General Fund; it could also be applied to all properties. Many property owners in the city were already paying extra to have enhanced lighting or to have private-owned lights installed in the city’s right-of-way.

**BASE STANDARD**

Building upon the concept of fairness, the committee also decided the city needed to have a “base standard” for lighting. This includes at least one light at every intersection and one light mid-block or about every 350 ft. This ensures the city is blanketed in lights that are evenly spaced so it’s easy to come up with an assessment.

This new fee would be used to repair the lights that had gone out over the past few years and also begin upgrading all the lights to LED. The City Council gave us 10 years to upgrade all the lights and maintain the system so the lights stay on.

A government General Fund takes dollars from multiple sources, such as property taxes, sales taxes, payments, grants, etc., and it’s all put into a large pot and swirled around so that it’s one homogeneous batch of money. Then the administrators and elected people decide what the public’s priorities are. The General Fund is very good at funding special and timely initiatives, but sometimes a General Fund is criticized for not dealing well with operation and maintenance needs. All elected people love cutting ribbons for projects; sometimes at the expense of the ongoing needs of the existing infrastructure.

A new fee had to be created. Unlike water, which is easy to measure, how do you measure the amount of light a person uses or enjoys? Setting the rate wasn’t a difficult task. You take the cost of the program needs and divide it by the number of payers. But not all payers are equal.

### ENTERPRISE FUND

- Setting rates is straightforward
- Freed up about $1 million from the General Fund
- Pay for the cost of service received
- All properties pay into fund—even tax-exempt properties
- ERUs are easy to calculate

Figure 1

Tall apartment buildings have more people than a small bungalow; large manufacturers are different than corner book stores. Basing the answer on how we bill for water, sewer and drainage, we used an Equivalent Residential Unit (ERU).

The ERU was created to ensure fees are assessed fairly. Based on the average residential street frontage of 75 ft, all residential, duplex and triplex properties would be assessed one ERU. Commercial and institutional properties would be assessed one ERU for every 75 ft of street frontage. The Base Service Fee is the amount assessed monthly to each property and would be based on the number of ERUs for each property. The Base Service Fee is $3.73 per ERU per month. This dollar amount
was determined by taking the cost of the program needs and dividing it by the number of ERUs in the city. With the magic of GIS it was fairly easy to determine how many ERUs in Salt Lake City.

Another advantage of our utility ERU system is that in Salt Lake City an estimated 25 percent of the property has some level of tax-exempt status. As a capital city we have many state offices, universities and colleges, public schools, county and local government properties. There are also churches and other non-profit organizations, parks and zoos, and the list goes on. These properties receive benefit from the street lighting but under the General Fund were not contributing to the cost. Some tax payers thought they were subsidizing all of these institutions when they paid the taxes that paid for the streetlights. Under the “pay for what you receive and receive what you pay for” theory, it was easy for us to conclude that all properties, including the tax-exempt ones, would be assessed their ERU fee. The other rate payers loved the idea and we got surprisingly little pushback from the tax-exempt community.

**ENHANCED SERVICE**

When the Enterprise Fund was created there were many street lighting special improvement districts existing in Salt Lake City. These districts were created where the property owners requested more lights than the city’s base stan-

### THE FEE SCHEDULE: ENHANCED SERVICE AREAS AND PRIVATE LIGHTS

<table>
<thead>
<tr>
<th>Private Lights</th>
<th>All Costs on Homeowner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base level</td>
<td>$3.73/ERU/month</td>
</tr>
<tr>
<td>Enhanced Tier 1 (Simple Residential)</td>
<td>$5.67/ERU/month</td>
</tr>
<tr>
<td>Enhanced Tier 2 (Complex Residential)</td>
<td>$15.94/ERU/month</td>
</tr>
<tr>
<td>Enhanced Tier 3 (Commercial/Industrial)</td>
<td>$43.82/ERU/month</td>
</tr>
</tbody>
</table>

**Figure 2**
standard provided or where the requested lights were more decorative. The property owners in these districts were assessed an additional Enterprise Fund Fee to cover the increased maintenance and costs for these lights. Under the Enterprise Fund, the old special improvement funding mechanisms were discontinued and the old fee was added onto the Base Service Fee based on the ERU calculations. These special districts were renamed “Enhanced Service Areas” but continue to provide the funds necessary to properly maintain and operate those lights inside the district and upgrade them to LED (Figure 2).

This funding program has been in place in Salt Lake City since January 2013. The lighting fee is a line item on the monthly utility bill with the water, sewer and storm utilities. We are about 50 percent complete with our LED upgrades and we have performed the necessary infrastructure upgrade to keep our lights on. Of course we’ve seen our fair share of complaints about the new fee, but we have the backing of the City Council and City Attorney. Every city has their own unique situation when it comes to funding street lighting and this approach may not work for others. Approach your accounting and legal teams early to see if they think it will work for your city.

This article was adapted from a presentation at the 2017 IES Street & Area Lighting Conference.

THE AUTHOR

Dave Pearson, PE, Member IES (2013), is street lighting manager for Salt Lake City.

LEUKOS, the journal of the Illuminating Engineering Society

EDITOR-IN-CHIEF:
Kevin Houser, Penn State University

SPECIAL ISSUE: Museum Lighting

GUEST EDITORS:
Christopher Cuttle, Independent Consultant
Anya Hurlbert, Newcastle University

Topics will range from how modern lighting solutions can improve customer experiences in museums to the challenges new lighting technologies present for conservation of museum exhibits.

To find out more or to submit your manuscript go to ies.org/leukos

www.ies.org