Resources for Funding
Financing for the city’s streetlight purchase will depend on a number of factors, including the community’s economic position, priorities of elected officials and more. Smart Lights cities recommend funding the cost of purchase through general obligation bonds that could be repaid with general fund dollars. Some indicated that other tools may have potential, such as:

- Special road districts.
- Streetlight utility fees.
- Lease-purchase arrangements.
- Energy cooperatives.

Additionally, Qualified Energy Conservation Bonds (QECBs) are available in Missouri. The bonds can be used for projects that involve capital expenses for energy efficiency, such as streetlights. QECBs provide cities with tax credits that can be applied to the interest portion of the bond amount. Search “qualified energy conservation bond” on the Missouri Department of Economic Development’s website to learn more.

For More Information
MARC’s Smart Lights initiative is supportive of streetlight ownership and the creation of a permanent tariff for high-efficient streetlights. MARC has useful information about the streetlight technology and financing mechanisms available. Feel free to contact MARC for additional information:

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Streetlight Ownership
Capture More Savings from LEDs

Advice from Your Peers
City administrators and public works directors around the region have commented that peers contemplating streetlight ownership for their communities should:

Consider the overall objective. For example, is the city considering a streetlight purchase because it is trying to:

- Gain funds that could be used to build capital projects?
- Cut costs for other purposes?

Make use of the most recent Street Light Sale Agreement available in the region. The city of Fairway currently has the most up-to-date version. The city attorney can obtain a copy of it for review and modification to fit the city’s needs.

Recognize that KCP&L and Westar Energy are likely to have different agreements for streetlight sales.

Conduct a cost-benefit analysis to determine the impact of ownership.

Talk to others in the region to learn about their experiences with streetlight ownership, including management and operation details, as well as estimates on energy savings.

Be patient with the ownership process.

The cost-effectiveness of high-efficiency streetlighting technologies, such as Light-Emitting Diodes (LEDs), is causing some of the 25 Smart Lights cities to pursue owning their lights.

Has your city considered ownership?
The Smart Lights for Smart Cities initiative provided evidence that high-efficiency technologies for streetlights are cost-effective. Cities in our region are now pursuing streetlight ownership and thereby beginning the process of transforming the region’s street-lighting market. Your city can be part of the process. The city

The Mid-America Regional Council (MARC) purchased more than 5,700 high-efficiency streetlights, (primarily Light-Emitting Diode or LED street-lighting) in 25 Kansas City metropolitan area communities through the Smart Lights initiative, which was funded by the U.S. Department of Energy’s (DOE) Energy Efficiency and Conservation Block Grant program.

The initial installation showcased different technologies and vendors. It also demonstrated firsthand the benefits of changing from mercury vapor (MV) and high-pressure sodium (HPS) streetlights to a more energy-efficient lighting system, involving induction or LED lighting technologies.

Advantages of City Ownership

Performance

Participating cities were pleased with the performance of the new streetlight technology and very few concerns were voiced by community members. The data collected during the grant period shows a significant energy savings from using high-efficiency streetlights. On average, the savings of the 250W equivalent is 55 percent compared to MV and 61 percent compared to HPS. There were very few warranty issues (less than 1 percent) during the first two years of operation.

Cost Savings

Smart Lights cities say that ownership is worthwhile because:

The cost savings in maintenance and operating expenses, as well as energy use, can be captured and reinvested into other capital improvement projects needed for their communities.

The savings are a selling point that could draw additional residents and businesses.

It’s a step toward advancing energy-efficiency and environmental goals.

The Process for Ownership

Even though streetlight ownership can initially be challenging, time consuming and expensive, it may be well worth the trouble. The typical process lasts one year or more. Steps involved include:

- City administrator and public works personnel assess need, costs and benefits of ownership.
- Finance director quantifies potential cost savings.
- City administrator and city attorney identify funding source and strategy that can be used to purchase the lights. Determine how payment will be provided to the utility provider, such as lump sum or payment over time.
- City administrator presents proposal to governing body and/or committees.
- Governing body considers proposal.
- City staff contacts the utility provider to discuss details.
- City staff requests a streetlight inventory from the utility provider to determine the number of poles and fixtures to be transferred to the city, plus their condition and value as an asset to the utility company. The inventory costs will go toward the purchase price of the lights.
- City administrator and city attorney begin negotiations with utility provider for purchase.
- City staff determines if the sale should reflect the city’s purchase of all its streetlight fixtures and poles or a portion of them and/or whether lights that involve co-location of other utilities, such as fiber optics, will be excluded.
- City attorney drafts purchase and/or funding agreements between city and the utility provider to purchase the lights.
- Governing body approves purchase and/or funding agreements and the mayor/city administrator executes purchase and/or funding agreements.
- City executes a maintenance agreement and warranty with a qualified contractor to manage and operate the streetlights.
- Public works director oversees installation and monitors, monitors and reports on cost savings.

Independence Expects Nearly $450,000 in Savings

The city of Independence, Mo. will be one of the first cities in the nation to initiate an ambitious full-scale street light change out. The project is expected to save nearly $450,000 per year in energy and maintenance costs, while at the same time, removing more than 10 million pounds of greenhouse gases from the atmosphere. The program is in keeping with the city’s goal of developing and supporting vibrant neighborhoods and a high quality of life, as well as helping to ensure the long-term financial stability of the city.

In a June 2013 press release, Independence, Mo., stated that their city-owned utility, Independence Power and Light (IPL), has calculated that moving from High Intensity Discharge (HID) fixtures to the new LED fixtures would save more than 5 million kilowatt hours, for an annual savings of nearly $300,000. Not only will it improve lighting by providing quality white light, the longer lamp life requires less maintenance, resulting in an estimated savings of $150,000 in maintenance costs each year.

The city of Fairway was the first Smart Lights city to complete the ownership process. The city now owns all of its street lights.

Things to Remember

1. Pole composition (wood vs. metal) impacts the assessed value of your city’s street lights. Wooden poles can be less expensive.

2. If the number of streetlights the city can maintain is limited, consider pursuing ownership of just decorative streetlights. KCP&L, for example, maintains standard fixtures, not decorative ones.

3. The maintenance and operation tasks necessary for ownership may be beyond what a community can afford when staff training and salary needs, equipment, storage and other elements are considered. If so, managing a contract with a qualified contractor is usually necessary.

4. If the ownership process does not happen in a single leadership cycle, securing buy-in from newly appointed officials and/or department heads will be important.