

**Direct Testimony**

**SB 0376**

County and Municipal Street Lighting Investment Act

Witness: George Woodbury

Page 1 of 10

---

**State of Legislature- Education, Health, and Environmental Affairs**

**Support of the County and Municipal Street Lighting Investment Act**

**SB 0376**

**Pre-Filed Testimony of**

**George A. Woodbury**

**February 14, 2022**

**Presented To**

**Honorable Chair**

**and**

**Finance Committee Members**

**I. This testimony is in support of SB0376**

**Q. What is the purpose of your testimony in this docket?**

A. The purpose of this testimony is in support of SB 0376 and to share the experience of in Massachusetts since 1998 when the law permitting municipal ownership was approved, Maine and Rhode island since 2013 and to share some observations from other states where transfer of ownership from an investor owned utility to a municipality has taken place. It is my hope that by sharing my knowledge and experience of how the process has worked in other states I can help the Committee see the value of this opportunity so that HB 1083 can be moved to the floor for a vote.

**Q. Why is this legislation important?**

A. The municipal streetlight bill is typically the largest of a city or town's electricity costs and typically represents around 34% of their total energy costs. At the same time from a utility perspective it represents less the 1.2% of their total megawatt sales. Acquisition of the streetlights and providing for their maintenance by a community will typically reduce their costs by 30-40 and combined with the conversion to LED technology typically will reduce the costs by more the 70% while improving overall lighting and public safety. Cities and Towns are motivated to saving energy while the utilities derive their income by selling electricity so the motivations are different.

**Q. Have other States enacted Legislation to allow the municipal acquisition of streetlights??**

A. Yes. Massachusetts was the first, passing Massachusetts General Law MGL164 § 34a in 1998. I was the author of that legislation. Prior to that time communities in Marin County California took the eminent domain/condemnation route as a means to take over their streetlights. Following Massachusetts, Connecticut, Maine, Rhode Island and New York have passed similar laws. Additionally there was a period in the 1980's where many utilities were allowing communities to take over the lights. While I am not certain of the reason I suspect it was related to the shift from mercury vapor lighting to high-pressure sodium lighting that took part during the 80's. The utilities would

avoid the capital cost of the conversion to the newer lighting source by selling the assets to the municipalities, generate some revenue and the municipality could complete the conversion saving money thru reduced energy costs.

**Q. Can you describe the process works in Massachusetts?**

A. Generally, in Massachusetts, the community will request preliminary purchase price information, which they will use to analyze the financial benefit of ownership. If they decide to proceed, they give notice of their intent to acquire the lights to the utility and to the Department of Public Utilities (DPU). At that point the utility provides the final purchase price and the parties have 60 days to reach agreement on the terms of sale and the purchase price. If they cannot agree, then they can bring the unresolved issues to the DPU, which has sixty days to develop a resolution. Once the terms are agreed to, the parties sign the Purchase and Sale agreement and, if any streetlights are attached to joint use poles, a License Agreement (modeled after other attachment agreements.) Once the transfer is complete the utility will adjust the billing at the start of the next billing month, except when the transaction has taken place before the tenth of the month, in which case the billing is adjusted to the beginning of the transaction month. In the event there is a dispute over the terms or the price, then once the dispute is resolved and the transaction has been completed the billing adjustment would be retroactive to 60 days from the date of notice of intent. This eliminates the incentive for the utility to drag out the process.

**Q. How has this worked for communities?**

A. Quite well. Overall the typical savings net of all costs have been over 40% just for changing the ownership and when combined with a conversion to LED technology the savings typically exceed 65-70%. The primary reason for such high savings is the community is no longer paying rent for the lights which includes the utility profits, depreciation of the asset and their vary high labor costs. Streetlight work does not require the same level of training or skill as line workers dealing with very

high voltages. Consequently, the communities can hire well qualified people meeting all of the national and state standards at lower cost than a typical utility line worker. Secondly communities do not make a profit nor do they collect depreciation. The cost of the system maintenance and replacement is carried through the maintenance contract. Today over 150 communities in Massachusetts and thirty-one in Rhode island have taken over their streetlights are saving a combined total of over 80 million dollars per year.

**Q. How many communities in Massachusetts have not acquired their lights and why not?**

**A.** There are 350 communities in Massachusetts and of these 41 have municipal utilities that own their lights and another 150 or more have acquired their lights under the law. This means that some 150 have not taken on the streetlights. In some cases, they have no streetlights or the number is so small it is not an important budget item. For the larger communities most of these are in Western Massachusetts and were former customers of Northeast Utilities who in 2010 as a result of a rate case found a way to drive up the cost of purchase to where the economics became difficult. As an example the Town of Longmeadow was negotiating the original offered purchase price of \$216,000 for 1400 streetlights and as a result of the 2010 rate case this price tag jumped to \$713,000 ending the negotiations. The other issues that affects many western Massachusetts communities is isolation making it difficult to find local contractors able to take on the maintenance services so it becomes easier to leave it in the hands of the utility. Virtually all communities in the eastern part of the state have taken over their streetlights.

**Q. Are there any other reasons besides the savings that this is a good idea?**

**A.** Yes. Streetlight technology has evolved very rapidly with the advent of the LED (light emitting diode). This technology is more than three times as energy efficient as the current street lighting technology, it lasts four times longer greatly reducing maintenance and disposal costs, and provides superior light distribution and nighttime visibility. Implementation of this technology has generally

only been allowed in communities that own the lights and therefore bear the capital investment costs and risks of premature failure. The many investor owned utilities that have looked at this technology or offer it as part of their tariffs are providing on average less than 15% savings and in some isolated cases actually charge more. In those communities that have converted to LED's it increases the total savings for a community to over 70% from what they currently pay. Additionally, owning the lights should provide the municipality greater flexibility to employ smart controls and other advanced technologies to improve public safety as well as reduce costs. LED lights can with smart controls be remotely dimmed or brightened. As an example in Providence RI when there is a concert or event in Roger Williams park the lights are brightened leading up to the event, dimmed during the performance and ramped back up following the event. The City controls this as can the police department. In this age of the internet of things, IOT, larger cities streetlights can serve as a valuable platform for supporting many municipal services including gun shot detection, traffic monitoring, cameras, traffic signal synchronization, small cell repeaters, local WiFi hot spots, license plate recognition, and weather monitoring to name just a few. Streetlights are ubiquitous in a city or town and are becoming very valuable "real estate". Who should own and control that real estate? The risk and decision making shifts to the community who also has access to lower cost borrowing than is available to the utility companies. In addition, by owning this valuable real estate they control their ability to use this important real estate.

Secondly streetlights are becoming a critical piece of the smart cities technology. They provide an ideal location and have ready power to support all manner of technology to address crime, traffic management, parking, localized WiFi, pollution monitoring, weather monitoring, flooding and so forth. Communities need to control this valuable "real estate".

**Q. Have there been any problems or issues with the communities that have taken over their lights?**

A. None that I am aware of. It is, of course, important the people servicing the lights be properly qualified for the work they are performing. As a general rule municipalities are more risk adverse than the for profit utilities. Additionally, also would remind the Committee that both in Maryland and across the country there are hundreds of municipal power companies operating their distribution systems quite safely and typically at lower costs than their Investor Owned counterparts. In addition, we have found the level of service for the street lighting is actually greatly improved when they are owned by the community with typical repair times being 48 hours or less because the contract for services can include penalties for not meeting response times. Most IOU's treat streetlight repairs as filler work and do not have dedicated staff to this mission. Whereas for a municipally owned system there is a dedicated staff and so response times are greatly improved.

**What were the objections raised by the utility companies and have any of them been proven to be valid?**

A. The IOU's have not been supportive of this change. They will raise many issues in objection to try and block such legislation. Most of their objections will center on alleged safety concerns. They, for example, will argue that they cannot have other non company workers working in their space. However, this is not true as they currently do this all the time. The cable television companies, the phone companies, the wireless companies, private contractors they engage and during emergencies utility crews from all over work on their equipment. Additionally, the tree trimming companies such as Asphlundh also work near their equipment all of the time. The key here is the people working on the lights should have to meet applicable federal and state qualifications for the work they are performing including the OSHA 1910.269. The utilities may argue they do not have a tariff for customer owned streetlights. That tariff should be an energy only tariff and be the same as their current metered outdoor lighting tariff. Further it should provide for the kWh consumption to be calculated as they do now or provided through any device that provides meter grade accuracy (ANSI

C12.20.5). The fact is this has been going on now in Massachusetts for over twenty-one years and there has not been a single incident involving work on streetlights that I am aware of. Further, in both Massachusetts and Rhode Island the utilities have adopted dimming tariffs to provide for part night dimming which results in an added savings

**Q. Are there any pole attachment fees for joint use poles?**

A. No. This was a point of some discussion after the law was passed. The DPU recognized several points. Other attachees to the joint use poles, such as the cable television company, do not consume electricity and therefore the utility has no mechanism to recoup a fair share of the poles maintenance costs and depreciation. In this case a fee is appropriate. Streetlights produce revenue for the company, and with properly designed street lighting rates, the utility captures the pole costs, so no fee is required and would be inappropriate.

Secondly, the utility gains a significant benefit from the no-fee placement of their poles and equipment in the public way, even though this location increases a community's costs for a wide variety of operations.

Finally should the utility be allowed to charge the communities pole attachment fees the communities could and should decide to charge a pole placement fee for use of the right-of-way. Properly constructed the costs of the pole and other distribution components are embedded in the electricity rates. Charging a pole attachment fee would constitute a double charge.

**Q. Do you believe and in your experience is municipal acquisition of streetlights a beneficial program?**

A. Yes absolutely. We now have over twenty-one years of experience with such a program in Massachusetts and seven years in both Main and Rhode Island. Communities where this has occurred are saving a substantial amount of money and are receiving a superior level of service. Street lighting is typically one of the largest utility bills paid by a municipality. Municipal ownership reduces those

costs and creates good paying long term jobs (typically union jobs-IBEW) for private sector companies providing the maintenance services for communities. Additionally communities have the ability to have much greater control over public safety when it comes to street lighting. We have to keep in mind that street lighting technology is changing very rapidly. Ownership by the Cities and Towns gives them the ability to take advantage of this technology on their time schedule not the utilities. It took the IOU's from 1964 when the HPS lamp was introduced until the 1980's to adopt it even though it provided twice the light output per watt as the mercury lamp it replaced. LED technology also offers the opportunity for dimming, timed operations, and flashing which can be controlled from a police squad car or from central dispatch which can aid in locating emergency address location speeding response times or increasing light levels in a crime area while at the same time saving money by reducing wattages when not needed. As the technology matures the streetlight could also supply power using its smart technology to supply the energy usage data to the utility at no added cost to them for other connected devices. The streetlight could become valuable real estate to support micro repeaters for cellular communications, security cameras and so forth and in some cases this space could be rented by the cities to the user creating a benefit both to the City and the utility. The regulated monopoly was created for the benefit of the public and to make electricity available to the poor as well as the wealthy. Municipal ownership of the street lighting assets is very clearly in the best interest of the public with minimal impact on the utility companies.

## **II. Qualifications**

**Q. Please state your name and business address.**

A. My name is George Woodbury and my business address is 1052 Johnson Farm Road, Lillington NC 27546.

**Q. By whom are you employed and in what capacity?**

A. I am a self-employed consultant and President of LightSmart Energy Consulting.



**Q. Please describe your educational background and training.**

A. In 1969 I graduated from The United States Military Academy with a Bachelor of Science degree. In 1977 I graduated from the University of Florida with a Masters degree in Construction Management.

**Q. Please describe your professional experience.**

A. After a career in the military where I earned the rank of Colonel and commanded engineering and other units, I was the Municipal Utility Director and the Public Works Director for Fort Knox, Kentucky from 1992 to 1995. Fort Knox is the sixth largest city in Kentucky and the Municipal Utility is the largest single customer energy load of Louisville Gas and Electric. During my tenure I instituted demand management programs that reduced our energy costs by 24%. Following retirement from 1995 to 2000 I was the Director of Public Works in Lexington MA. During that time I authored the legislation in Massachusetts that provided for municipal ownership of street lighting and for municipal aggregation, and played a lead role in the Massachusetts Municipal Association's streetlight maintenance program. From 2000 until the present I have helped 150+ communities in eleven states acquire their streetlight systems and implement energy savings. In this capacity I assisted them with all aspects of the acquisition process, procurement of more energy efficient lighting sources, lighting design, securing and setting up maintenance programs and financing if needed. For five years, from 2007 thru 2013, I worked for Republic Electric (now a division of Siemens) as a Municipal Consultant on street lighting matters. Republic Electric is the largest street light maintenance company in the country. More recently my son and I are managing the Rhode Island municipal collaborative of 25 communities called PRISM, Partnership for Rhode Island Streetlight Management. This program provides centralized maintenance management of 65,000 streetlights. It also represents these communities in matters before the legislature and the Public Service commission.

PRISM provides a four day maximum turn around for all repairs and the work order clerk personally contacts every citizen the reports an outage to acknowledge receipt of their call as well as to let them know when the light has been repaired.

Among my current clients is a group of communities in Maine, where I have assisted with the passage of legislation allowing municipal ownership of street lighting. I also served as the expert witness for the Rhode Island League of Cities and Municipalities and the Washington County Regional Planning council on their streetlight legislation in 2013. I was actively involved in the rule making process with the utility commissions in both Maine and Rhode Island. I have testified numerous times before various utility commissions on street lighting matters.

I currently serve as a voting member of the American National Standards Institute, ANSI, 136 Committee for outdoor lighting of the National Electrical Manufacturers Association, NEMA that sets the manufacturing standards for outdoor lighting and a member of the Illuminating Engineering Society, IES.