



Sterling Municipal Light Department
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2023 Annual Town Report

Respectfully submitted, the one hundred and thirteenth report of the Sterling Municipal Light Department (SMLD).

Electricity Sales

As of December 31, 2023, there are ***4,113 revenue meters on the SMLD system:***

- 3,607 Residential,
- 439 Small Commercial
- 55 Medium Commercial
- 12 Large Commercial / Industrial

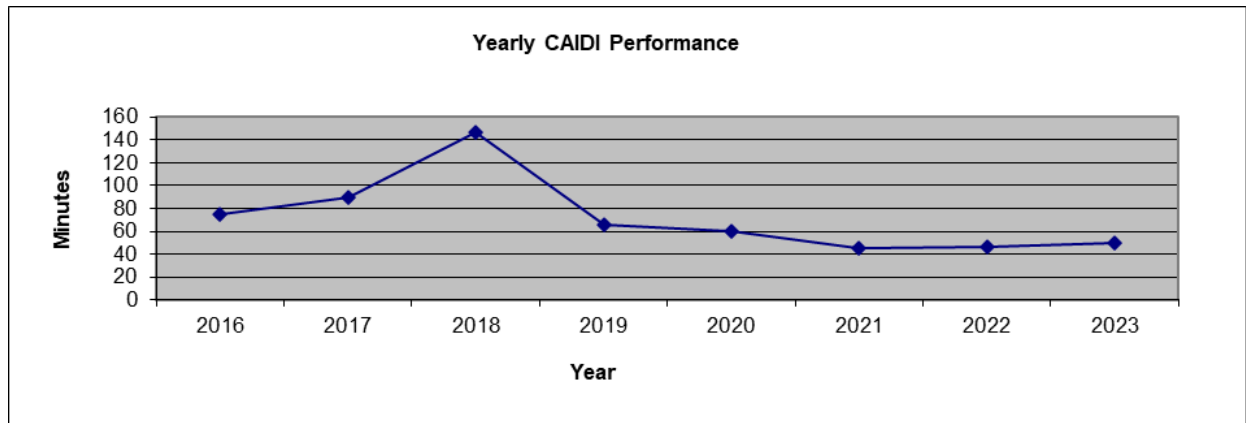
A total of ***65,845,820 kilowatt-hours (kWh) of electricity were sold*** during the calendar year 2023. This represents an increase of 544,738 kWh from the 65,301,082 kWh sold in calendar year 2022. Sterling's hourly peak demand of 13.025 MW was set in September of 2023.

In 2023, ***SMLD rates for electricity continued to be among the lowest in Massachusetts.*** We are consistently ***among the least expensive 1/3 of surveyed municipal electric companies*** and charge considerably less than investor-owned utilities. For example, a typical residential customer of ***National Grid or Eversource*** using 750 kWh per month over the 12-month period ending in September 2023 would have seen an electric bill averaging ***more than double*** what would have been charged to a Sterling resident for the same energy use.

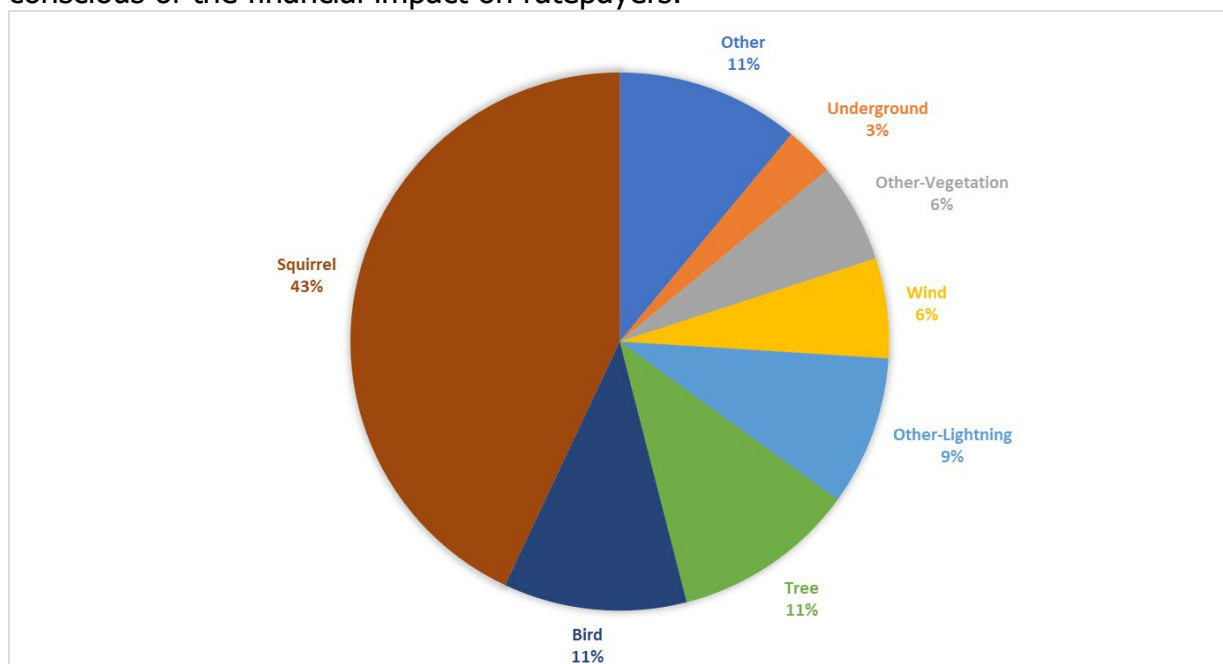
System Reliability

Keeping the lights on is of the highest priority at the SMLD. We utilize industry-standard reliability indices to monitor the performance of our distribution system to measure our response time to system interruptions. The 2023 ***Average Service***

Availability Index (ASAI) of electricity for Sterling residents was 99.999%. The 2023 **Customer Average Interruption Duration Index (CAIDI)** numbers which represent the average time required to restore service to a customer per sustained outage was only 50.039 minutes. This compared to the regional average CAIDI for 2022 of 115.45 minutes.



Continued reliability in the distribution system is a direct result of the systematic tree trimming approach by the Working Foremen which ensures each quadrant of the system is trimmed every 4 years and that this is performed at a time of year when additional growth is minimized. The Operations crew continues to replace outdated equipment with newer technology as we look for ways to improve reliability, while being conscious of the financial impact on ratepayers.



The rural nature of the Town of Sterling continued to be the primary cause of system interruptions in 2023 and the slight uptick in our CAIDI number. As many as **54% of Sterling line outages can be attributed to wildlife and 20% to vegetation.**

Power Supply

In an effort to diversify our power resources and stabilize purchased power costs, we buy electricity through fixed contracts and the open market. These costs reflect the generation and delivery of electricity to the Town of Sterling. There are circumstances beyond our control that make the cost of electric energy fluctuate, such as periods of peak power demands during extreme temperatures, unexpected plant shutdowns and spikes in fuel prices. Changing costs are triggered by unpredictable events from the fluctuating fuel commodity markets to global unrest. Natural gas prices have declined over the last few years, but we remain challenged with the uncertainty of the delivery during cold spells.

With the new legislation for the 2050 Roadmap, the SMLD will be required to have at least 50% of our power supply coming from non-carbon emitting resources by 2030, 75% by 2040, and 100% by 2050. This will be accomplished by continuing to use renewables such as solar and wind projects as well as hydroelectric power. We support the reduction in carbon emissions and will continue to monitor this legislation and projects to be sure they are in the best interest of the Sterling ratepayers and that it does not supersede local control.

Our 2023 power portfolio contains over 51% non-carbon emitting resources. Of that, SMLD retains the attributes of and may claim credit for over 36% carbon-free electrical generation sources in 2023. We receive ***hydro power*** specifically from ***Baltic Mills, Mechanicsville Hydro, Energy Stream Hydro*** and ***Public Authority State of New York Hydro (PASNY)***. In 2023, ***over 19%*** of our power was received from **renewable energy sources** that include the ***Berkshire Wind Project*** in Western MA, the ***Hancock Wind Project*** located in Hancock ME, the ***Princeton Wind Project*** on Wachusett Mountain in Princeton, MA and ***three large scale solar facilities in Sterling:***

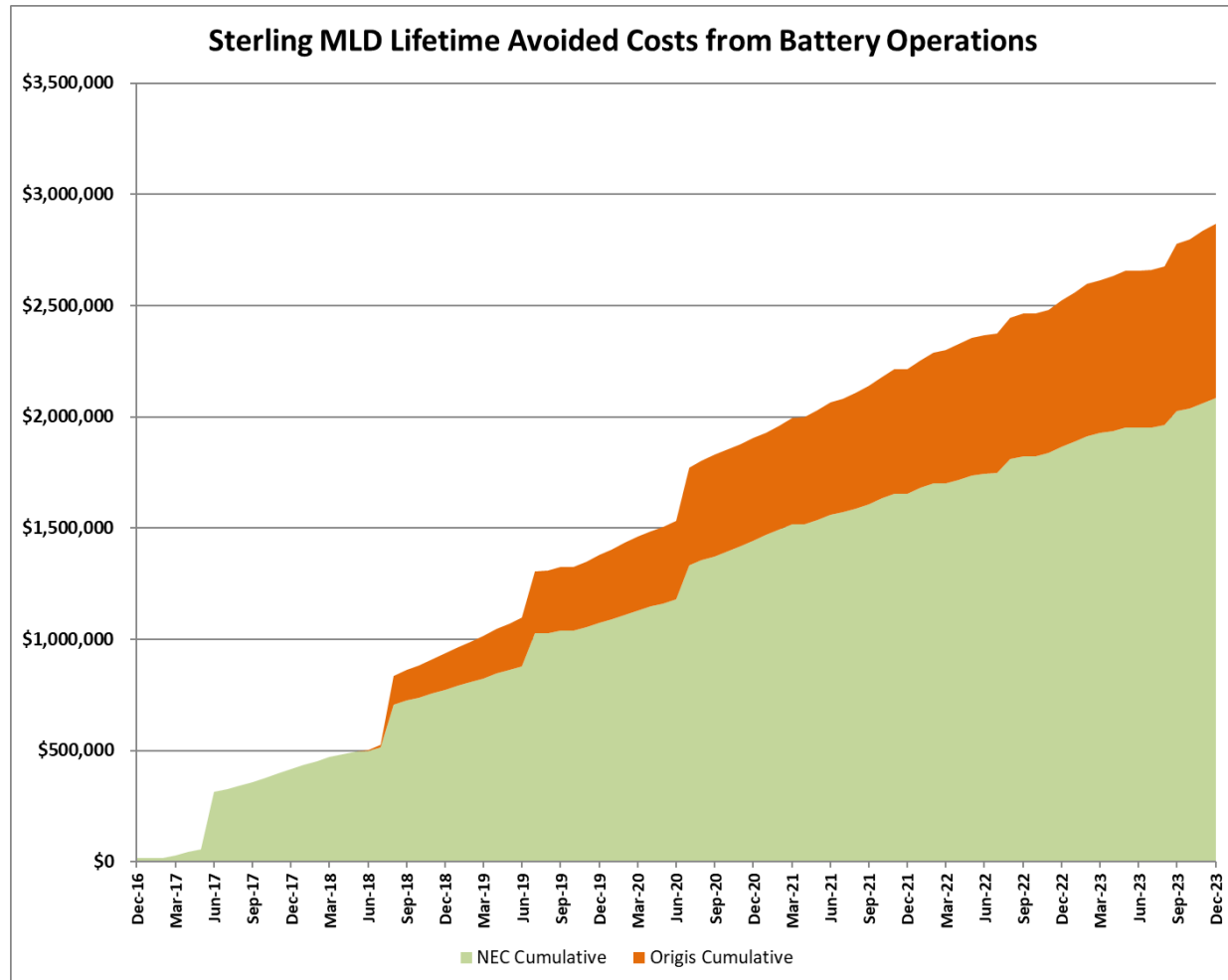
- ***Century Aggregates*** - 1 MW solar array located on Jewett Road.
- ***Wiles Road Project*** – 2 MW solar array.
- ***Origis Energy*** - 1 MW solar with storage project on Chocksett Road.

The ***1 MW Community Solar Project*** with 1mw/2mwhrs of energy storage was the first of its kind in Massachusetts and is fully subscribed by over 400 Sterling residents who receive 25% of their energy needs from this facility. The ratepayers in Sterling share in savings generated by using the batteries to avoid transmission costs.

We also receive power from the ***Millstone III Nuclear Plant*** in Connecticut and the ***Seabrook Nuclear Power Plant*** in New Hampshire. Other sources of our power supply come from the ***MMWEC Stony Brook Plant*** (combined cycle units I & II).

Energy Storage

We have been able to mitigate any transmission increases with the use of our two battery energy storage systems by using locally produced (and stored) solar energy from the **Century Aggregates** site on Jewett Road, the **Sterling Solar** farm on Wiles Road, as well as our *Community Solar with Storage Project* on Chocksett Road. To date, these facilities have combined savings to ratepayers of **\$2,868,321** in avoided transmission cost while producing **54,630,408 kwhrs**.



Operations Department

In 2023 the SMLD Operations was hard at work maintaining and upgrading the electric distribution system to increase its reliability and decrease the number of power outages to its customers. The crews replaced 49 utility poles that were damaged or in need of replacement. They installed 1 mile of new high voltage power wire to replace the existing wire that was defective and causing repeated power outages on our line that serves the largest number of customers in town. Crews have responded to numerous motor vehicle accidents involving SMLD poles or pad mount equipment. They have also

installed 3,650' of underground cable for new residential homes, developments or commercial buildings being built in Sterling, including 3 new industrial customers, numerous single-family homes, an apartment building for 72 new sterling residents, and a small residential community on the south side of town.

SMLD has continued with the LED floodlight conversion and has changed a total of 167 of the 216 floodlights in town to 85watt LED, contributing to better lighting at lower cost. When complete, this will reduce our stock from a high of 32 different types of lights and wattages of lamps to only 3 types of lighting. We will continue to work on a project to replace flush mounted underground electrical boxes in certain underground developments. The older style flush mount (sub-surface) handhole boxes are being replaced with above ground secondary pedestals. The new style pedestals allow connections to be above ground to limit the chances for failure due to corrosion from moisture underground. This also allows for better troubleshooting capabilities and quicker restoration times in the winter months when flush mounts are frozen underneath snowbanks.

SMLD electric crews responded to multiple recent storms for mutual aid to assist other New England communities in need. We sent crews to Wolfsboro, New Hampshire, Calais, Maine at the Canadian border, and the Town of Johnson, in northern Vermont.

In 2024, the SMLD Operations Department will continue to prioritize tree trimming, system improvement, safety, and a reliable electrical system. ***The SMLD continues to provide safe and reliable power, as well as maintaining excellent customer satisfaction.***

Fiber Project

The Sterling Municipal Light Department fiber to the home Internet initiative, operating as the Local Area Municipal Broadband (LAMB) project, continued strong growth in completing its second full year of operations. Installations increased approximately 98% over 2022. Expansion of the project has allowed increased coverage to 30% of Sterling, with additional fiber being placed, tested, and certified every month.

In 2020, completion of the fiber project in and around the center of Sterling was made possible by a ***\$150,000 Community Compact IT Grant received by the Town of Sterling.*** A larger backbone fiber from Shrewsbury at the West Boylston town line to the Leominster town line was installed. This extended internet service to the Fire, Police, and the DPW Municipal buildings, and provides improved communication capability to the radio towers, SMLD equipment, and renewable power supply assets. This access to more reliable and higher speeds will provide tremendous savings for the Town. In late 2021, LAMB began offering fiber internet to Sterling Businesses and Residents along this initial route. In 2022, SMLD and the Town of Sterling joined

together to further expand the Town's INET system to more Town facilities and locations, enabling the expansion of the LAMB fiber network to more businesses and residents of Sterling. The LAMB project was recognized with the Calix 2022 Broadband Operations Innovation award.

In 2023 we continued with the joint project with the Town of Sterling with the installation of fiber in the east side of Sterling enabling a redundant fiber path for the LAMB project. This fiber runs from Worcester Road through Gates Road, Campground Road, Squareshire Road, Chace Hill Road, across to Redstone Hill Road, Wiles Road, Clinton Road, Chocksett Road, finally terminating at our secondary location on Pratts Junction Road covering over 42,000 feet. Sterling LAMB also delivered free Wi-Fi service for guests, vendors, and public safety officials at the Sterling Fair this year.

The year 2024 will bring an even more aggressive build-out. Our plans are to provide service along the new fiber path in east Sterling (service to Gates and Campground Roads have already begun) and to complete the distribution fiber along North Row Road. SMLD/LAMB will complete the backbone fiber along Heywood Road, Osgood Road, and Princeton Road all the way down to Route 140. With no debt to the Sterling ratepayers, this project will expand the LAMB fiber network availability to over 50% of businesses and residents. We will also have free Wi-Fi at the Sterling Fair with plans to expand this offering to the Town Common and many other parks in Town.

While fiber is a differentiator, there's more to LAMB than fiber. We offer an all-encompassing package for residential services that start at \$50.00 per month with service available up to 1 Gigabit at \$105.00 per month. The service includes a fiber modem, Wi-Fi-6 router, managed Wi-Fi services, the Sterling LAMB Smart Home App, a complementary Roku® 4k Streaming Stick®+ and 24/7 Help Desk Support at no additional cost. Services are also available for our business customers. There are no hidden fees, data caps, or other small print charges.

Awards

The most important award that we receive continues to be our *safety award*. For the eleventh consecutive year the SMLD had *no workers' compensation claims or lost time*. This not only lowered our workmen's compensation insurance premiums, but also qualified the SMLD to receive the *American Public Power Safety Award in 2023*. This award recognizes the Public Power Utilities across the country who have achieved this milestone. Our improved safety record and reduced premiums also provide additional savings to our ratepayers.

The SMLD has applied for and will also receive another *American Public Power Association* award for 2023, the *Certification of Excellence in Reliability*.

Recipients are determined by comparing their reliability data with the national reliability data published by the Energy Information Administration. To receive a certificate, the utility must be in the first quartile of utilities for System Average Interruption Duration Index (SAIDI) based on the last five years of the EIA data.

Our *former General Manager Sean Hamilton*, a tireless proponent of public power, was honored at the annual Massachusetts Municipal Wholesale Electric Company (MMWEC) conference in 2023 with the *James E. Baker Service Award*. This award recognizes distinguished service to the MMWEC organization, including service as a director, officer, or member of an MMWEC committee.

Community Contributions

SMLD continues to offer the following *assistance programs* to our residents:

- NextZero Home Energy Audit (no cost to residents)
- Energy Star® Home Appliance Rebate Program
- Residential Heat Pump System Rebates
- Electric Vehicle Rebates / Charging Rate
- EV Charger Program
- Residential Behind-the-Meter Battery System Rebate
- Electric Yard Equipment Rebates
- Kill-A-Watt™ Electricity Usage Monitor
- Multiple Payment Options
- Virtual Peaker Residential Demand Response Program.
- Connected Homes Program
- Commercial Prescriptive Lighting Program

Other community activities/contributions sanctioned by the SMLD Light Board include:

- Our Annual Open House is held on the 3rd Thursday in June.
- Installed LED holiday lights on the Town Common.
- Annually we install poles, cables, and lighting needed to power the Sterling Fair.
- Free public wi-fi at the Sterling Fair.
- Provide funds for annual inspection and maintenance for all town-owned generators.
- Offer the round-up program to our customers to benefit the Sterling Neighbor-to-Neighbor (N-2-N) Program. Since the program began in June 2014, your generous contributions have raised over \$20,000 for the Neighbor-to-Neighbor Fund.
- Work with the Energy Committee and provide funding for energy efficiency projects in Municipal Buildings.
- Work closely with Sterling DPW on tree maintenance and removals.

SMLD CHANGES IN 2023

The most significant changes which occurred at SMLD in 2023 were staffing related. ***New General Manager, Matthew Stelmach***, joined the team in March. ***Staff Accountant, Karl Lewis***, announced his retirement plans and was replaced by ***John Kwasniewski*** in June. Long-time SMLD employee and ***Customer Service Representative, Meggin Hendley***, left the department at the end of the year, prompting a replacement search. After 9 years and 3 terms of service, ***Commissioner Brian Pierce*** left the Municipal Light Board. Our newest ***Commissioner, Andrew Gonsorcik***, was elected to a 3-year term in May.

COMING IN 2024

Award of the contract for a ***new Enterprise Resource Planning Software System*** was announced in 2023. ***National Information Solutions Cooperative (NISC)*** will soon be providing customer service and financial software services to SMLD and its customers. The new financial module is scheduled to be rolled out in May 2024 with customer service to follow in the fall. This service will include "***SmartHub***", NISC's web and mobile application, which will allow customers quick access to their electric and broadband accounts for bill payment and usage information.

The SMLD plans to roll out a long-awaited ***new website in 2024***. A request for proposals was sent out in 2023 and vendor selection is underway. The new website will be much easier for customers to navigate and will be fully integrated with the SmartHub application as well as the NextZero Rebate Program.

Respectfully Submitted by,

Matthew V. Stelmach, PE
General Manager

For the Sterling Municipal Light Board Members:

Joseph Curtin, Chairman
Eric Darlington, Vice Chairman
Andrew Gonsorcik, Clerk