

2025 Pathway to Net Zero

Sterling Municipal Light Department's Sustainability Report



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The Pathway to Net Zero



At a town meeting in 1910, the Town of Sterling appointed a committee to investigate whether it was possible to bring electric street lights to the town to replace oil and gas, which was the beginning of Sterling Municipal Light Department (SMLD). SMLD has gone through a lot of changes over the years to adapt to meet the

community's needs.

It is the mission of SMLD to provide reliable power as the department works toward a carbon-free portfolio, while maintaining competitive rates with a focus on safety for SMLD employees and customers.

In this Report

This report highlights SMLD's focus on sustainability along three dimensions: environmental, social and governance/community engagement. These facets are central to SMLD's mission of providing affordable, reliable, and clean energy in a transparent and accountable way.

Environmental



For over a century, SMLD has provided residential and commercial customers of Sterling dependable electric power. SMLD's mission is to provide smooth, clean, reliable power at a reasonable price while staying abreast of society's technological advances for the benefit of its customers.

Social Responsibility



SMLD strives to help homes and businesses receive energy safely and reliably while providing competitive rates. The department is focused on transitioning its power portfolio to achieve net zero emissions by 2050.

Governance/Community



As a consumer-owned, municipal utility, SMLD is committed to transparency and accountability. SMLD is governed by a Light Commission whose members are elected by the town's citizens. The commissioners are sworn to uphold and operate in the best interest of the town and its citizens. The Commission holds monthly meetings and posts the minutes of these public sessions on its website. This engagement is important to SMLD in keeping the Sterling community involved in their municipal light department.

Carbon-Free Timeline



50%

Carbon-free portfolio by 2030

75%

Carbon-free portfolio by 2040



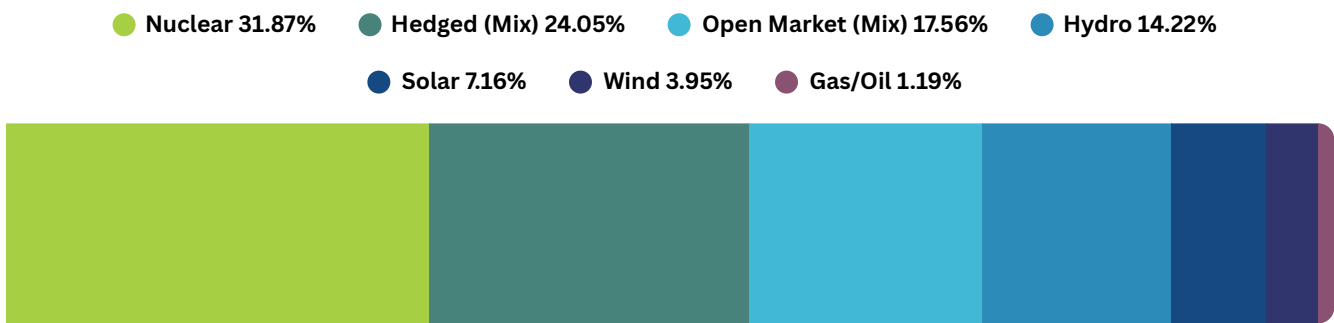
Net Zero

portfolio by 2050

Power Supply

MWh/RECs	Percentage of Total Sales	Name	REC Type
3,487	5.01%	NYPA Hydro	VT Tier I
1,370	1.97%	First Light Hydro	ME Class II
22,751	32.70%	Nuclear	EFEC / CES-E
28	0.04%	MLP/DOER Solar Rebate	MA Class I
2,196	3.16%	Hydro Québec	HQ System Mix
29,832	43%	TOTAL	
69,569	Total Sterling Electric Sales		
43%	Sterling Carbon-Free Electric Sales		

2024 kWh PURCHASES BY FUEL SOURCE



NEXTZERO



NextZero is the leading residential electrification, demand response, and energy conservation service for Massachusetts municipal utility customers. Managed by MMWEC, NextZero provides energy education, no-cost home energy audits and incentives on home energy improvements. The program also offers rebates on ENERGY STAR® appliances, electric assets like heat pumps,

mini-splits, electric vehicle chargers, and smart thermostats.

The total value of audits, rebates, and incentives awarded to SMLD residential customers through the NextZero energy efficiency program in 2024 amounted to **\$107,009**. The rebates provided by the program helped increase efficiency and reduce energy costs.

Home Energy Audits

Home energy audits are the best first step for homeowners and renters to get advice on measures they can take to reduce their energy use. By providing no-cost energy audits through NextZero, SMLD is committed to helping customers identify energy savings potential and helping educate customers about the rebates and incentives available to help them implement efficiency measures.

As part of the process, customers receive a Home Energy Assessment Report that highlights the results of the audit and lists the rebates and incentives available through the NextZero program.

As part of the audit, if warranted, the auditor provides up to three LED light bulbs as an instant savings measure. SMLD also provides inspections of customer installations to confirm that measures, for which incentives are sought, have been installed.

2024 Home Energy Audits	Quantity
Audits	25
LED Bulbs	75
Verifications	1





ENERGY STAR®

ENERGY STAR is the program developed by the US Environmental Protection Agency to identify and promote the most energy efficient products.

SMLD pays rebates to customers that purchase specific efficient ENERGY STAR appliances for their homes through the NextZero program.

Appliance Rebates	Quantity	Value
Air Purifiers	1	\$40
Clothes Washers	24	\$1,200
Clothes Dryers	20	\$1,000
All-inOne Washer/Heat Pump Dryers	1	\$500
Dehumidifiers	7	\$210
Heat Pump Water Heaters	5	\$2,500
Pool Pumps	1	\$100
Induction Ranges	7	\$1,100
Refrigerators	21	\$1,050
Wi-Fi Thermostats	10	\$835
Total	97	\$8,535



Heating and Cooling Rebates

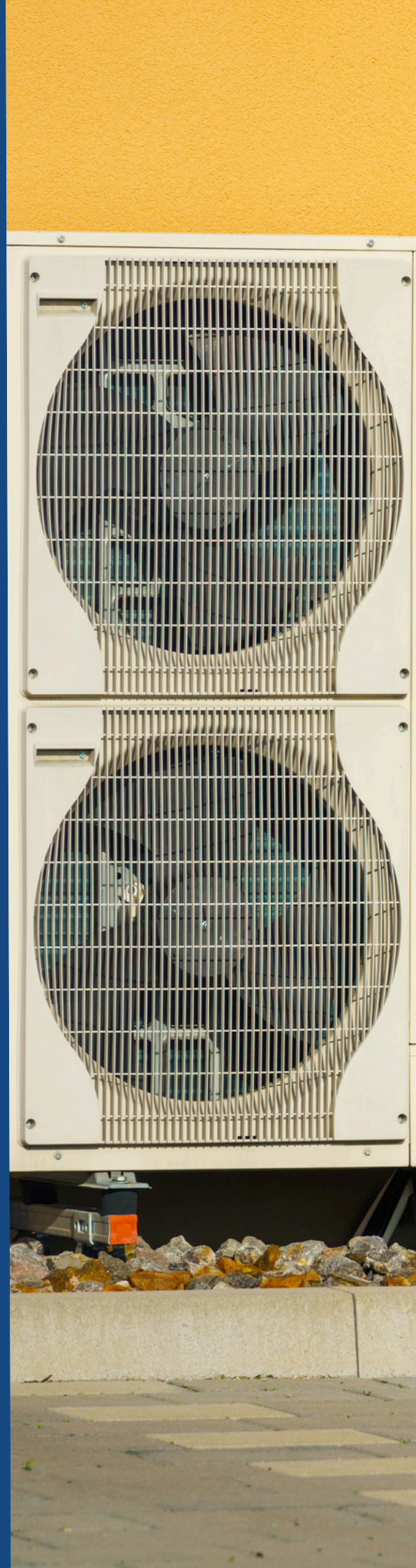
SMLD is doing more than just decarbonizing its own power portfolio. Through NextZero, SMLD is also helping Sterling customers switch to clean heating and cooling systems.

In order to reach state decarbonization goals by 2050, homeowners will need help converting their fossil fuel heating systems to electric heating systems.

The most efficient way to heat with electricity is with a heat pump. SMLD offers rebates to help offset the cost of converting fossil fuel heating systems into efficient heat pump systems.

Of the Heating and Cooling rebates NextZero provided in Sterling for 2024, 84% were for air source heat pumps and 16% were for ductless mini-splits.

Heating and Cooling Rebates	Quantity	Value
Air Source Heat Pumps	81	\$71,205
Ductless Mini-Splits (Single Zone)	10	\$6,250
Ductless Mini-Splits (Multi Zone)	6	\$7,500
Total	97	\$84,955



Electric Vehicles Scheduled Charging

Electric vehicles are starting to enter the mainstream of transportation options.

As the number of electric vehicles increases, we can expect increasing demand on our electric distribution system. However, there are ways to help shift some of these periods of peak electric use to help get the most use out of existing infrastructure, helping to keep electric rates lower for all.

Through the NextZero Scheduled Charging Program, SMLD provides an electric vehicle charger rebate for both fully electric vehicles and plug-in hybrid electric vehicles to qualified residential customers. In exchange for rebate, the customer agrees to allow SMLD to have the charger turned off during peak periods to shift electric vehicle charging to times of the day when electric use is lower.

This helps keep more expensive, more carbon intensive energy resources from being needed at the peak hours and reduces costs and emission of greenhouse gases.



Total EV Chargers Distributed	Value
4	\$2,264

Connected Homes

There is a wide variety of other internet-connected devices that control energy consuming equipment in homes, in addition to electric vehicle chargers.

Wi-Fi thermostats, electric vehicles and chargers, electric hot water heaters, mini-split controllers, and home battery systems all have the ability to control significant home electric loads and therefore can be used to help shift home energy use away from peak periods when the less efficient resources must be dispatched to meet demand.

The NextZero Connected Homes program enrolls smart devices to be controlled and provides incentives to residential customers that enroll their devices in the program. By dispatching these devices during peak periods, SMLD and customers work together to put Sterling on the path to net zero carbon emissions.

Total Customers	Total Devices	2024 Incentives
14	30	\$890



Electric Yard Equipment

SMLD, through NextZero, offers a rechargeable electric yard equipment rebate program, offering residential customers rebates on a wide range of equipment, from \$25 on leaf blowers to \$100 on lawn mowers. Rechargeable electric yard equipment not only reduces greenhouse gas emissions by eliminating direct combustion of fossil fuels, but also improves local air quality and reduces noise pollution in the community. Battery-operated equipment is also easier to start, lighter, and easier to operate than traditional gas-powered lawn equipment.

These rebates are available to all residential SMLD customers through NextZero.org.

Electric Yard Equipment Rebates	Quantity	Value
Lawnmowers	7	\$700
Hedge Trimmers	3	\$120
Chain and Pole Saws	11	\$440
Leaf Blowers	6	\$150
String Trimmers	4	\$100
Snowblowers	3	\$300
Total	34	\$1,810



Battery Rebates

SMLD offers rebates on residential lithium-ion battery systems. To qualify, batteries must be Duracell or Emporia brands and have a storage capacity of 7.5 to 20 kilowatt-hours (kWh). Eligibility for the rebate requires enrollment in the Connected Homes program where additional incentives of \$30/month for participation in peak events are available.

The rebates and incentives for the program are intended to make the purchase of battery systems easier for residents in exchange for sharing the battery capacity to help keep electric costs lower for all SMLD customers.

Residential batteries can be paired with solar panels to store excess energy generated by the panels during the day for later use after sunset. Residential batteries can also provide back up for critical loads in the home, like refrigerators and Wi-Fi, in case of a power outage. Residents should consult with their installer to get the most out of their battery installation.



Commercial Programs

Prescriptive Lighting Program

SMLD offers the Prescriptive Lighting Program for its commercial and industrial customers.

The NextZero Prescriptive Lighting Program is a fast track process for reviewing and implementing lighting projects for commercial and industrial customers.

This program is for customers who have identified lighting improvement projects and have procured cost quotations from licensed installers.

Incentives available through the Prescriptive Lighting Program are based upon equipment eligibility and pre-determined incentive per unit.



Neighbor to Neighbor

The Sterling Neighbor to Neighbor Fund was established in 2012 to help residents of Sterling during difficult economic times with payments toward utilities and other essential living costs. Donations can be made at any time.

SMLD implemented the "Round Up" program which allows SMLD customers to round up their electric bills to the nearest dollar. The extra funds collected are donated to the Neighbor to Neighbor Fund. The department donates an average of \$300 per month to the fund from the proceeds of the Round Up program.

To qualify for assistance, recipients must be residents of the town of Sterling for a minimum of one year. There are no income requirements; applications are reviewed and approved on a case-by-case basis.



Moving Forward

While SMLD has made many strides in decarbonizing its power portfolio and offering new ways for its customers to increase energy efficiency in their homes, vehicles, and businesses, we recognize the path to electrification and decarbonization will be a challenging one. We all must work together to see real results.

SMLD will continue to charge forward and set the standard for meeting, if not exceeding, the Commonwealth's greenhouse gas emissions targets. Together, SMLD and its customers can pave the way to a cleaner, greener tomorrow.

