



Strategic Plan

2019-2023

WWW.SHELD.ORG

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Chapter 1: Executive Summary

The South Hadley Electric Light Department (SHELD) is pleased to present this Strategic Business Plan which covers the years 2019 through 2023. This plan represents the joint efforts of SHELD's five-member elected Municipal Light Board and SHELD's management team and employees. All strategic plan development meetings were open to the public and posted in accordance with our plan values of transparency and community engagement. The collective group worked to identify critical initiatives for SHELD's future and to address rapid changes in the utility industry. This plan was developed in 2018 with the assistance of the American Public Power Association affiliated consultant Hometown Connections.

As a municipally owned and governed electric utility with a one hundred and fourteen year track record of providing reliable electric service at affordable rates and a ten year track record of providing reliable telecommunications service, SHELD plays a critical role in the town of South Hadley, Massachusetts. SHELD's customers range from a prestigious educational institution to agricultural operations, manufacturing businesses, municipal government and the hi-tech industry. The Town of South Hadley is located in the Pioneer Valley and is part of the Five College Network (FCN) of Smith College, Amherst College, University of Massachusetts, Hampshire College and Mount Holyoke College. SHELD customers expect and receive highly reliable electric service with rapid recovery and response times while maintaining competitive rates. In recent years customers have expressed a growing desire for more renewable energy options, digitalization and high speed internet service. The town and SHELD are financially stable with long standing New England traditions.

This plan is focused on areas of importance to our elected Board and the rate payers they represent. The plan establishes a new mission, vision and key themes to focus our attention.

The five themes identified in the plan are:

Reliability

Customer Engagement

Community Development/Enhanced Quality of Life

Workforce

Finance



Chapter 2: Historical Background, Current Situation, Future Challenges

The South Hadley Electric Light Department (SHELD) is a municipal electric utility established in April 1914. SHELD purchases and distributes electricity to 8,000 residential, commercial, industrial, and municipal customers in the Town of South Hadley, Massachusetts. Massachusetts General Laws, Chapter 164, govern SHELD as a municipally owned utility. The Department of Public Utilities (DPU) also provides guidance to the utility. In 1997 the statute was amended due to electric utility industry deregulation. The statute acknowledges the Municipal Light Department's wholesale and retail sales options and permits the Department to retain and own generation assets.

In 2015, SHELD experienced a transformation with our Board expansion from three to five members and, in 2017, its first change in General Manager in forty years. SHELD has remained a highly reliable and financially stable utility for decades, receiving a Standard and Poor's credit rating upgrade of from A+ to AA- in 2017. The rating agency specifically citing SHELD's stability, recent decreasing bond debt obligations in electric generation assets, and a fixed ability to make capacity payments for third-party power and robust liquidity. This investment grade credit rating is essential for a Municipal Light Plant (MLP) to participate in Power Supply contracting and is necessary to purchase power on the Independent System Operator (ISO-NE) wholesale market without having to post cash collateral.

Massachusetts municipal utilities, like SHELD, are facing historic changes including aggressive state renewable portfolio standards, growing customer owned distributed generation, cyber security threats, digitization of customer information, and expectations of low rates. SHELD has experienced a loss of load without change to long-term Purchased Power Agreements (PPA's) which satisfy 80% to 100% of existing power demand needs. These generation assets are licensed to operate until the years 2045 and 2050 and have been paid for in full as of the year 2019. Thus any significant state mandate, for SHELD to acquire additional generation per new renewable energy portfolio standards, would result in an overabundance of generation (supply) and in turn an excess of power for our needs (demand). The management of power supply has the greatest financial impact on SHELD and therefore should be monitored carefully within the construct of our strategic initiatives. SHELD conducted a strengths, weaknesses, opportunity and threats (SWOT) analysis during our Strategic Planning process to ensure we are addressing these industry challenges.

The future for utilities is one of declining sales and growing distributed generation. These trends are rapidly changing how SHELD, and utilities everywhere, will function in the future. SHELD has recently turned its focus to modernization of process and systems to better serve our customers and improve efficiencies. There are strong indications that the future of utilities will shift with the adoption of micro-grid technologies that allow customers to provide a large portion of their power through on-site distributed generation.



Chapter 3: Mission Statement & Values

SHELD's Mission Statement

SHELD delivers highly reliable, responsive and personal utility services at competitive rates while providing value to our community.

SHELD's Values

Transparency

Honesty

Safety

Cooperation/collaboration

Empowered

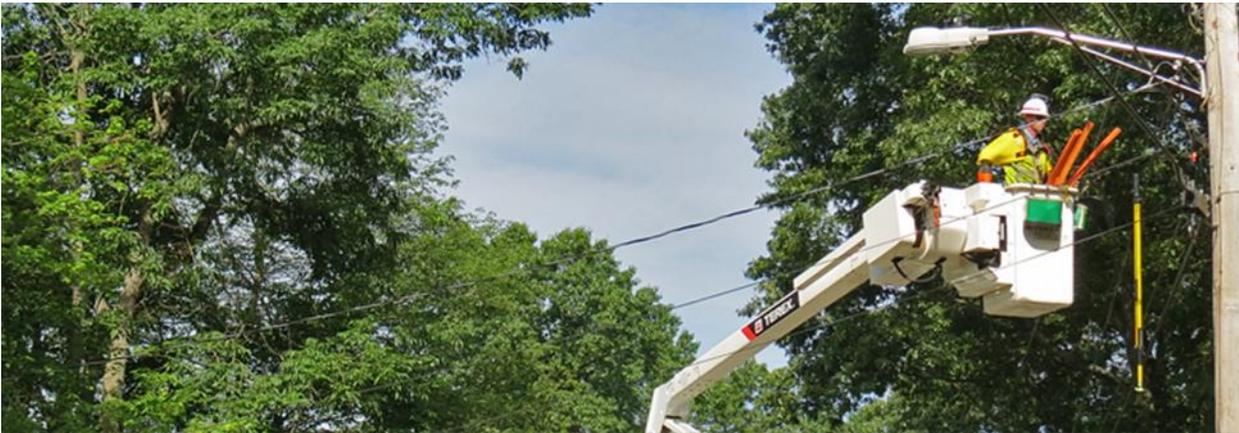
Fiscally responsible

Environmentally responsible

Chapter 4: Vision Statement

SHELD's Vision Statement

To provide innovative solutions that anticipate the evolving needs of our customers and community.



Chapter 5: Key Operating Strategies

Reliability: SHELD has a well built and maintained infrastructure with a proven history of reliability as demonstrated by achieving consistently high industry performance metrics. SHELD does have an aging metering system which is approaching the end of its life cycle. Modernizing our meter fleet, combined with a Supervisory Control and Data Acquisition (SCADA) system, will allow for enhanced digital control and outage management. Prior to 2018, there had been no circuit tie with neighboring distribution systems which limited SHELD's resiliency during potential catastrophic outage events. SHELD will focus on increasing reliability, redundancy and circuit tie connectivity. SHELD will maintain and enhance system reliability and redundancy of power sources, maintain five year average scores of SAIDI, CAIDI, SAIFI, maintain a favorable comparison to other utilities reliability, and increase system redundancy where feasible.

SHELD has a stable long-term power supply portfolio with 80% to 100% of our supply needs provided through owned nuclear generation assets. SHELD's long term asset ownership provides greater price certainty resulting from retired debt service in 2019. The contractual guarantees for these assets extend through 2045 and 2050 and have received official NRC approval. While fuel diversity is a weakness, the existing nuclear power owned by SHELD is carbon emissions free and below current market average. Risk of rising transmission and capacity prices are motivating many municipal utilities like SHELD to invest in battery storage, and peak shaving generation to mitigate the volatility of peak load expenses such as capacity and transmission. SHELD will need to continue to investigate and incorporate economically and environmentally beneficial assets to contend with rising peak energy costs.



Customer Engagement: SHELD has and will continue to enhance and improve the customer experience. SHELD has made a significant effort to improve existing customer engagement from antiquated in-office interaction and paper only transactions to digitization of multiple customer platforms. SHELD's strategic focus is to increase and speed up our customers' ability to transact business and provide feedback on our performance and our services. Below are general objectives for SHELD to improve customer engagement;

- Periodic customer surveys
- Informal community feedback
- Improve outreach to community
- Develop and improve customer metrics

Customer Outreach and Communications: In 2016, SHELD began televising all Municipal Light Board meetings. SHELD will continue to enhance and improve its communications to customers through regular newsletters, social media, modern website access and on-line service options. In 2017, SHELD introduced new processes to better serve and communicate with our customers. This will remain an area of focus for all of the strategic initiatives. SHELD has begun to integrate digital solutions to ensure all communication can be accessed remotely and instantaneously. Advanced Meter Infrastructure (AMI) will become a cornerstone for SHELD's strategic ability to provide real-time information to our customers including interval data, demand response, peak shaving and outage mapping to ensure rapid communication during critical conditions. SHELD's customer outreach and communications objectives are as follows:

- Quarterly newsletter
- Public Safety program
- Televising board meetings
- Participation in public events
- Sponsorships

Community Development/Enhanced Quality of Life: SHELD will work strategically to investigate and integrate programs and services which will assist with the South Hadley community development and enhance the quality of life for our customers. In 2016, SHELD introduced the commercial and industrial efficiency program called the Green Opportunities (GO) Program which provides annual rebates of up to \$25,000 for business to invest in more efficient equipment and technologies which reduce their electric costs. SHELD has also integrated multiple iterations of solar incentives and rate structures to increase renewable energy in South Hadley. Telecommunications services for municipal and business customers have been provided since 2006 and have been Board approved for expansion to residential customers as of December 2018. Residential fiber deployment is a key strategic goal which will add significant quality of life improvements to the citizens of South Hadley. SHELD will work to integrate the following community focused initiatives;

- Informal community feedback
- Improve outreach to community
- Develop and improve customer metrics
- Expansion of services

Finance: SHELD's current financial position is stable with little to no debt. SHELD has strong reserves and is fortunate to have long-term future projected price certainty, in one of our most significant power supply costs; Generation. The projected town-wide residential fiber optic expansion will be internally financed and is projected to have a positive impact on long-term electric rates. SHELD's strategic objectives are as follows:

- Maintain SHELD's AA- financial rating
- Maintain annual clean audit reports
- Maintain adequate cash reserves
- Provide consistent profitability
- Provide clear and consistent reporting



Workforce: In order to respond to a rapidly changing environment, SHELD will need to recruit, develop and empower a highly competent workforce. This is one of the most important parts of our strategic plan, as it is believed that its employees are SHELD's most important asset. The deployment of fiber, construction of a new facility, and implementation of new processes to improve and enhance our ability to serve our customers and meet their expectations requires talent and expertise.

SHELD’s 2018 resource outlook indicates retirements of key personnel within the next five to ten years and opportunities for improvement in training of the workforce. In 2017, SHELD began instituting HR and leadership training to improve the performance of the organization and establish a solid foundation for a healthy and productive work environment. SHELD’s succession plan for positions is to encourage and facilitate development training for internal employees and actively recruit skilled candidates when necessary. SHELD will also;

- Conduct Employee surveys
- Develop training programs for all employees
- Empower existing employees to succeed
- Ensure accountability to each other and customers
- Explore outside recognition/review programs
- Ensure sound knowledge management transfer
- Recruit proactively for anticipated openings

Customers: South Hadley’s most recent data indicates a population of 17,514, with an average age of 40.6 years and an estimated 2016 household income of \$65,164, compared to the Massachusetts median household income of \$75,297. ¹ The mean price of all housing units in South Hadley is listed at \$310,957.

SHELD’s electric customer base is predominately residential as listed below:

RATE CLASS	SCHEDULE	RATE BASE COMPOSITION	
		CUST %	COST %
- Residential Service	RS	73.2%	44.4%
- Residential Space Heating Service	RSHS	14.5%	11.5%
- Small General Service	SGS	9.6%	11.0%
- General Demand Service	GDS	0.6%	9.3%
- Large General Service	LGS	0.2%	22.7%
Other		1.9%	1.1%
Total		100.0%	100.0%

¹ According to City-Data.com

South Hadley Electric's customer demographics have remained stable and no significant changes are expected in the foreseeable future. The Town of South Hadley is known for financial stability, quality education, and favorable living conditions.



Chapter 6: Strategic Goals

- Maintain five year average score of SAIDI, CAIDI, SAIFI - **Reliability**
- Maintain a favorable comparison to other utilities reliability - **Reliability**
- Increase system redundancy - **Reliability**
- Perform customer surveys - **Customer Engagement**
- Develop and improve customer metrics - **Customer Engagement**
- Informal community feedback - **Community Development/Enhanced Quality of Life**
- Improve outreach to community - **Community Development/Enhanced Quality of Life**
- Maintain SHELD's AA- Financial rating - **Finance**
- Maintain annual clean audit reports - **Finance**
- Maintain adequate cash reserves and a cash reserve policy - **Finance**
- Provide consistent profitability - **Finance**
- Provide clear and consistent reporting - **Finance**

- Conduct employee surveys - **Workforce**
- Develop a training program for all employees - **Workforce**
- Explore recognition/review programs - **Workforce**
- Ensure sound knowledge management - **Workforce**