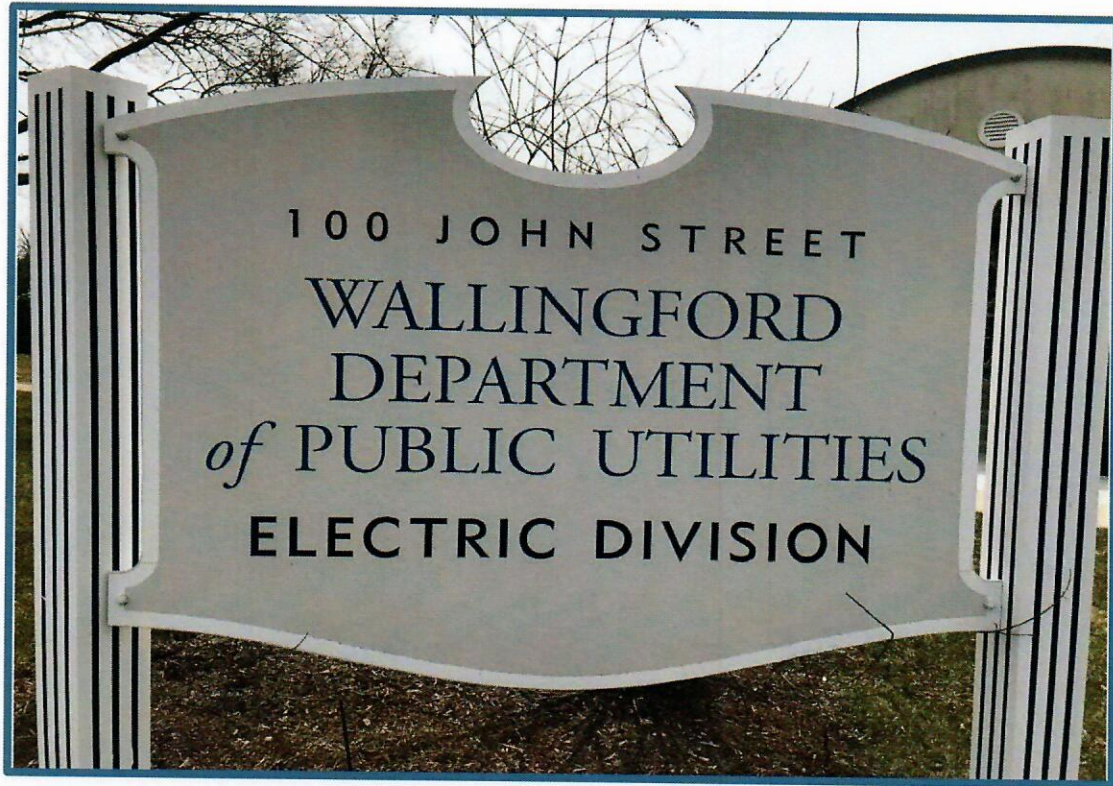


WALLINGFORD ELECTRIC DIVISION



2018

ENERGY EFFICIENCY SERVICES

ANNUAL REPORT

INTRODUCTION

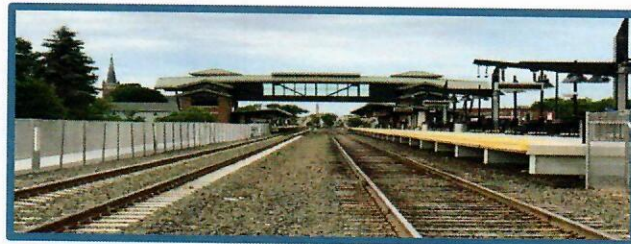
The Wallingford Electric Division (WED) is a municipal electric utility (MEU) serving approximately 25,000 residential, commercial and industrial customers in the Town of Wallingford and the Northford section of North Branford. The WED began providing safe, reliable and affordable electric power to its customers in 1899 and has maintained that reputation to this day. The energy efficiency efforts of the WED have helped its customers to lower their energy costs and reduce energy use, as well as positively impacting the environment by saving precious natural resources and reducing pollution associated with electricity generation.

The WED first offered energy saving programs when the Energy Conservation Fund was established in 2005. Today the WED continues to offer a wide variety of energy efficiency programs that mirrors the programs of Connecticut's investor-owned utilities wherever possible.



The Home Energy Savings program, a home energy evaluation and energy saving measure implementation service, is offered to residential customers, with 626 home visits completed in 2018. Residential customers also benefit from programs offering attic insulation, heat pump water heater and central air conditioning and heat pump rebates.

Energy efficient lighting is available through deeply discounted pricing of select energy efficient lighting emitting diode (LED) products in three retail Wallingford stores and through distribution to all new Wallingford Electric Division customers when they sign up for electric service. Commercial and industrial customers can receive incentives for qualifying projects including lighting retrofits, energy efficient compressors, variable frequency drives, HVAC and any other electric powered equipment.



Funding for the WED's energy efficiency programs comes from the Energy Conservation Fund charge applied to all customer bills and from Regional Greenhouse Gas Initiative auction proceeds. As we continue to reach out to our residential, commercial and industrial communities, we are prepared to meet their energy efficiency needs in providing incentives, and products and services that will reduce their home and business energy consumption. These efforts, in turn, reduce the negative impact on our environment created by excessive energy consumption and the byproducts of energy production.

The Wallingford Electric Division is proud to offer these opportunities to the residents and businesses of the two towns we serve and to have a positive impact on the economy and environment of these towns and the State of Connecticut.

In 2018 the Wallingford Electric Division achieved, through its energy efficiency programs, a lifetime savings value of:

65.4 million kilowatt-hours representing

7.4 million dollars of electric energy cost savings

The annual impact to the environment in avoided emissions is:

6,325 tons of CO₂

2.5 tons NO_x

4.6 tons SO_x

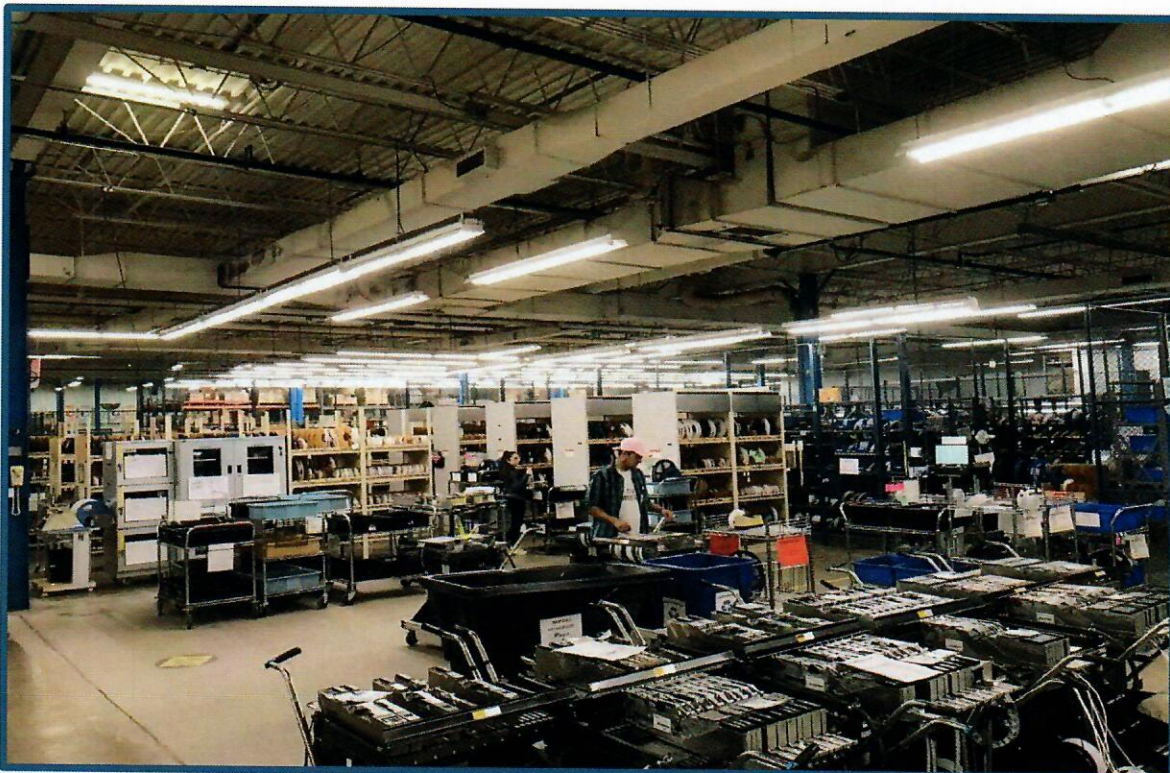


Significant projects completed in 2018

Installation of nine new HVAC rooftop units totaling 113 tons of air conditioning at the future home of Connecticut Plastics



Lighting retrofit of the entire manufacturing area of Honeywell's North Branford facility with LED technology



SUMMARY

In 2015 the Wallingford Electric Division (WED) developed and submitted a three-year Energy Efficiency Plan with the Connecticut Energy Efficiency Board, covering the period 2016 through 2018. This report details the WED's performance against the third and final year of the plan and the actual WED fiscal year budget. Results indicate 74% of the planned EEB budget and 110% of the WED fiscal year budget was expended with \$600,337 spent on the residential sector and \$969,232 spent on the commercial/industrial sector.

Residential							
	EEB Budget (See Note 1)	WED Budget	Actual Expenses	% EEB Budget Spent	% WED Budget Spent	Actual kW Impact	Summer Peak kW Reduction
Home Energy Savings	\$621,460	\$482,246	\$488,994	79%	101%	337	43
Lighting (See Note 3)	\$207,153	\$30,000	\$27,650	13%	92%	487	63
Prescriptive (See Note 4)	\$93,219	\$60,000	\$83,693	90%	139%	52	15
TOTAL – Residential	\$921,832	\$572,246	\$600,337	65%	105%	876	121
Commercial & Industrial (C&I)							
	EEB Budget (See Note 1)	WED Budget	Actual Expenses (See Note 2)	% of EEB Budget Spent	% WED Budget Spent (See Note 6)	Actual kW Impact	Summer Peak kW Reduction
Prescriptive (See Note 5)	\$77,682	\$127,747	\$87,376	112%	68%	31	26
Process Equipment Replacement & Retrofit	\$362,518	\$169,340	\$29,842	8%	18%	8	12
Lighting Retrofits	\$828,613	\$561,281	\$852,014	103%	152%	527	777
TOTAL – C&I	\$1,268,813	\$858,368	\$969,232	76%	113%	566	815
Renewables	\$103,577	\$7,500	\$0	0%	0%		
Administrative Costs	(See Note 1)	\$113,009	\$136,828	(See Note 1)	121%		
All Programs							
Total	\$2,294,222	\$1,551,123	\$1,706,397	74%	110%	1,442	936

Note 1: EEB Budget reflects a) projected planned spending reflected in WED Energy Efficiency Programs Plan 2016-2018 submitted to the Energy Efficiency Board, November 2015, b) administrative costs included in each line item.

Note 2: a) Incentive payouts totaling approximately \$382,800 for three large C&I lighting retrofit projects contributed to the over expenditure of this budget category (See Projects of Note).

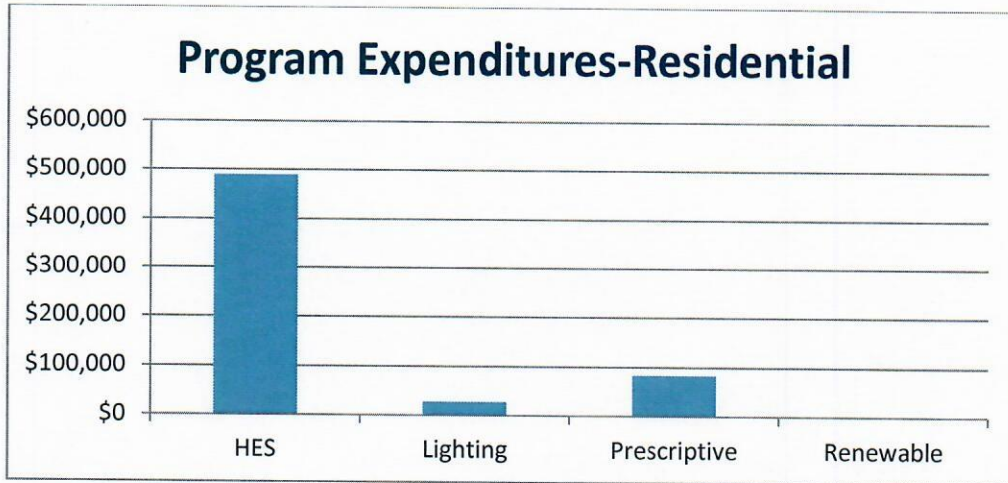
Note 3: Residential Lighting includes the retail discount and new service enrollment lamp give-a-way programs.

Note 4: Residential Prescriptive includes the Attic Insulation, Heat Pump Water Heater and Electric Heating & Cooling Rebate Programs.

Note 5: C&I Prescriptive include the Electric Heating & Cooling Rebate Program.

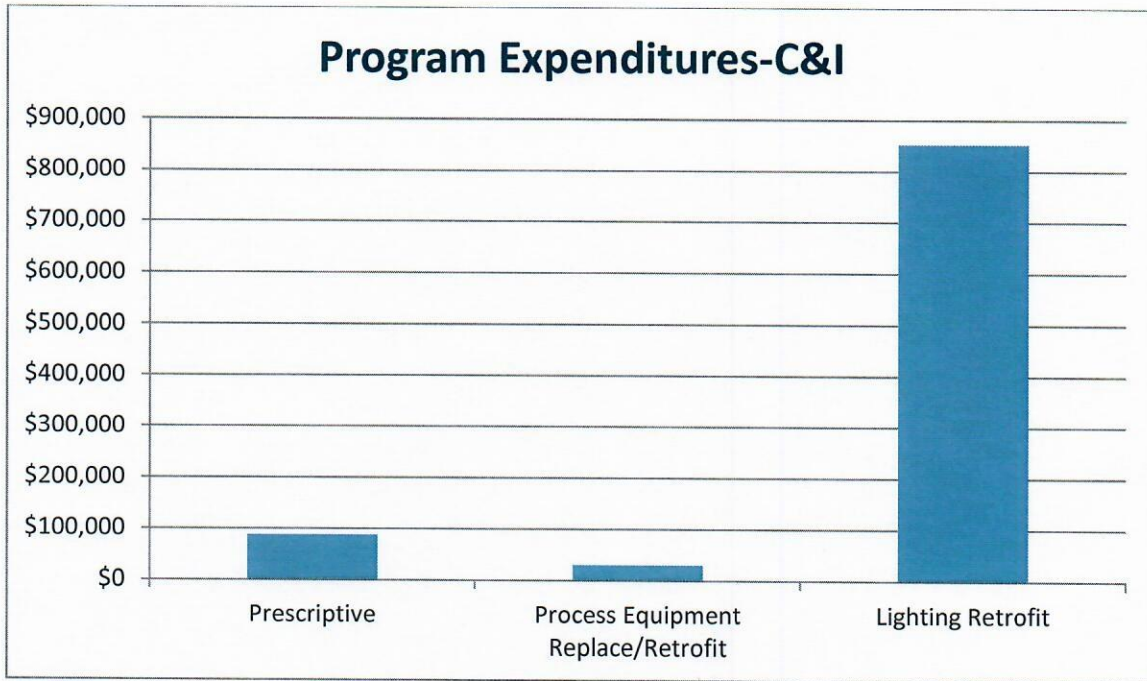
Note 6: Unspent ECF monies from previous years were used to cover the balance of actual expenditures beyond the WED budget.

RESIDENTIAL SECTOR:



- 626 residential visits were made as part of the Home Energy Savings ('HES') program.
 - Program is available to all residential customers with no co-payment.
 - All condominium and apartment complexes have essentially been completed .
 - Door-to-door marketing by CMC Energy and direct mailing campaigns by Eversource Gas continued throughout 2018 with good results. Efforts will continue throughout 2019.
- Energy efficient lighting was made available to customers through three channels:
 - 2,170 LEDs installed during HES visits.
 - 17,040 LEDs sold in retail outlets at deeply discounted prices through the Negotiated Cooperative Purchase Program, funded by the WED.
 - An LED lamp is provided to new WED customers upon enrollment for service.
- 55 customers installed 124 tons of energy-efficient central air or heat pump systems.
- 52 customers added attic insulation to 53,324 square feet of attic space.
- 30 customers installed highly efficient heat pump water heaters.

COMMERCIAL/INDUSTRIAL SECTOR:



- 70 lighting retrofit projects resulting in 3,443,477 kWh savings annually and 527 kW demand savings monthly. LED technology was utilized to replace older fluorescent lighting.
- 2 customers participated in the Process Equipment Replacement/Retrofit program presenting savings of 152,928 kWh savings annually and 8 kW demand savings monthly.
- 15 customers installed 260 tons of energy efficient central air and/or heat pump technology through the Electric Heating and Cooling Rebate program.

PROJECTS OF NOTE

- Honeywell participated in a lighting retrofit project. The scope of this project involved the upgrade from fluorescent to LED technology of 2,634 fixtures. The projected annual energy savings is 548,417 kWhs and 131 kW of monthly demand reduction.
- VLG Wallingford, a multiple tenant office complex located at 10 Research Parkway, replaced their existing 1,019 fluorescent fixtures with LED fixtures. This project is expected to yield 355,894 kWhs of energy savings in addition to 80.7 kW per month of reduced demand.
- BYK-Chemie updated their existing 1,578 fluorescent lighting fixtures to LED lighting. The calculated annual energy savings is 496,213 kWhs along with a reduced monthly demand of 101 kW.

ADDITIONAL PROGRAM HIGHLIGHTS

- A total of 3,684 customers, representing approximately 15 percent of all customers, took advantage of the Wallingford Electric Division's various energy efficiency programs.
- Total expense to administer the energy efficiency programs, including energy consulting support, program management and staffing costs, totaled \$136,828 representing approximately 8 percent of the total annual budget.
- All projects completed and products delivered in 2018 will result in 65,377,096 kWh savings to Wallingford Electric Division customers over the lifetime of the measures.
- Projects completed and products delivered in 2018 will result in a reduction of approximately 936 kW of coincident summer peak demand.

EDUCATING OUR CUSTOMERS

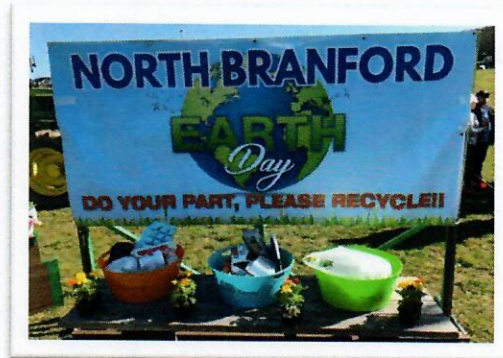
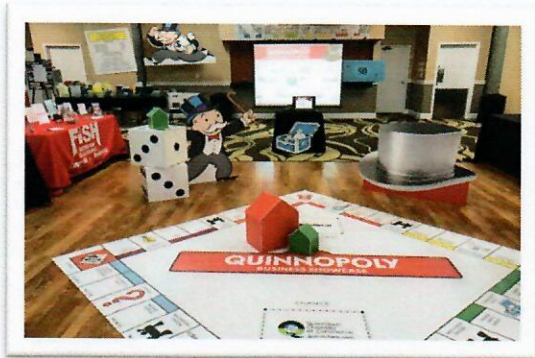
The WED actively reaches out to both residential and businesses customers encouraging them to leverage the energy efficiency programs available to reduce their energy costs. WED's energy efficiency programs are essential economic development tools to retain businesses in Wallingford and Northford.

Quarterly newsletters are included in customer bills and usually contain articles on energy efficiency and the programs available through the Wallingford Electric Division.

Quarterly advertisements appear in Wallingford Magazine encouraging customers to participate in the WED's energy efficiency programs.

The WED's Energy Efficiency Specialist engaged the public regarding energy efficiency at the following events and programs during 2018:

- 'Winterize Your Home' with CMC Energy Services at the Wallingford Public Library on January 17.
- Quinnipiac Chamber of Commerce's 'Quinnopoly Business Showcase', Best Western Plus, North Haven - April 5.
- Town of North Branford's Earth Day 2018 on April 21.
- Northford Potato & Corn Festival at Augur Field, North Branford – August 3-5.
- Celebrate Wallingford in Downtown Wallingford – October 6, 7.



PARTNERSHIPS

The Wallingford Electric Division continued success in offering energy efficiency programs during 2018 would not have been possible without the partnerships with our outstanding consultants, product and service providers, including:

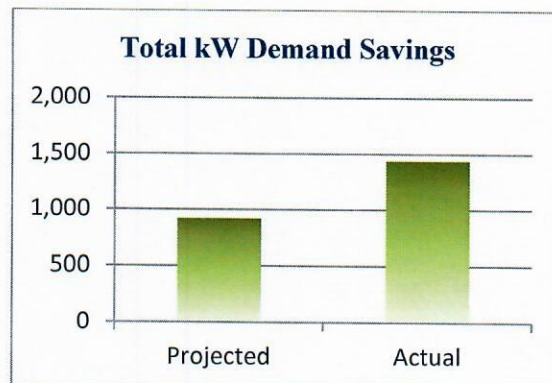
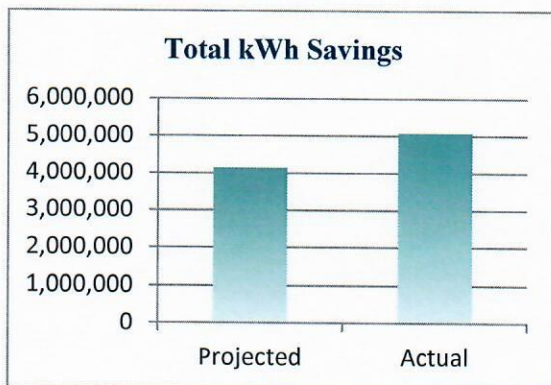
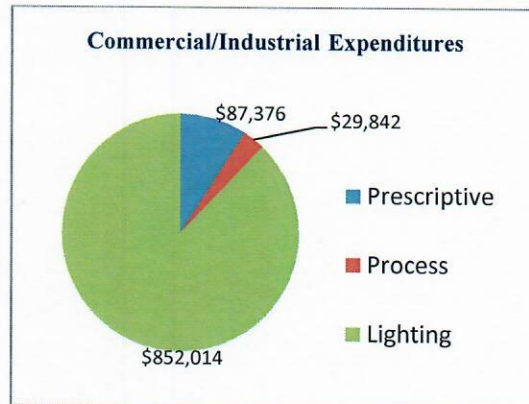
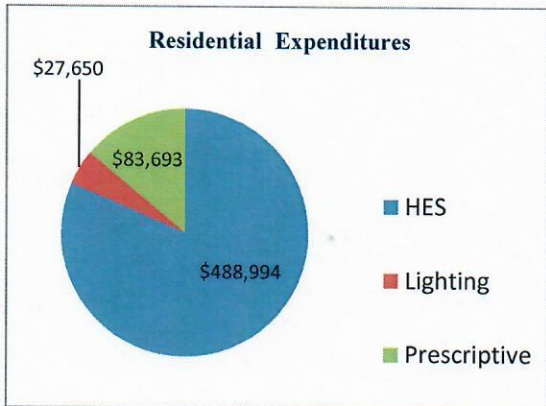
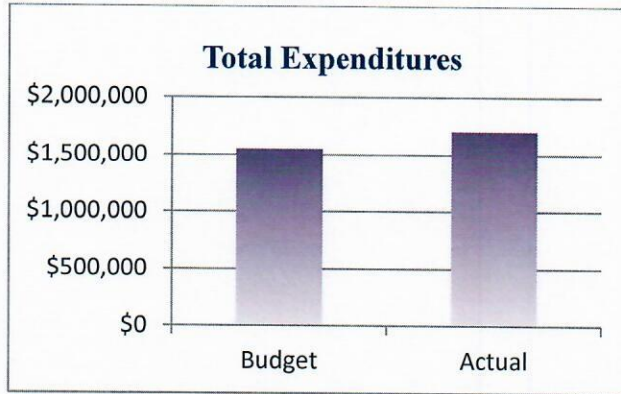
- CMC Energy Services, provider of Home Energy Savings products and services.
- Energy Federation, Inc. (EFI) supports the Negotiated Cooperative Purchase Program (NCP) by providing discounted lighting products to select, local retailers.
- Optimal Energy, provider of energy efficiency program design and evaluation consulting services.
- TechniArt, provider of lighting products to support the new customer lamp give-a-way program.
- Granite Bay Design, print design service providing updated rebate forms.



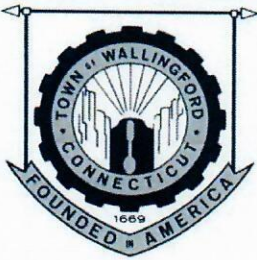
The WED participates directly with government agencies involved in energy efficiency and has worked successfully to establish a presence and positive relationship with these agencies. These groups include the Connecticut Green Bank, the Department of Energy and Environmental Protection (DEEP), and the Connecticut Energy Efficiency Board (EEB).

2018 PROGRAM PLAN SUMMARY

Expenditures & Impact



Wallingford Electric Division



**Proudly delivering safe,
reliable and affordable electric
power since 1899.**