

#### 30 V.S.A. § 218c

Least-cost integrated planning

### Case No. 25-0853-PET

2025 HED Integrated Resource Plan

2025 INTEGRATED RESOURCE PLAN

## **Strategic Priorities**

Roadmap for current and future needs while balancing cost, reliability, and environmental impact.

# **Current Electricity Portfolio**

### **Energy Sources**

- Hydroelectric (Wolcott Facility):
   Historically provided ~10% of HED's
   energy, but currently offline due to flood
   damage; expected back in service by
   2026–2027
- Solar (H11 Project): Now contributes 6% of annual energy needs
- Other Sources: Internal power purchases amongst VPPSA members, as well as regional ISO-NE energy market purchases

#### **Demand Trends**

- Overall demand is relatively flat, with modest long-term growth expected.
- Electrification trends (EVs, heat pumps) are expected to offset reductions from net metering

**Community Solar**: HED is actively supporting customer net-metered solar development, and utility-scale solar including the H11 solar array.

**Local Hydro**: Commitment to restoring the Wolcott hydro facility.

## Renewable Energy

Wind & Other Renewables: No specific wind projects mentioned, but HED is aligned with VPPSA's broader renewable strategy to meet 100% renewables per the RES.

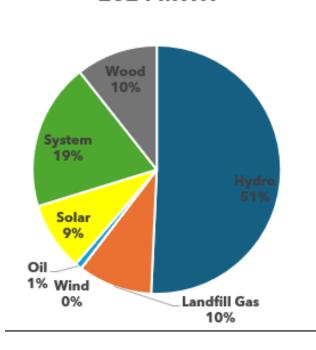
**Technology Roadmap**: Emphasis on smart grid tech to support renewable integration and customer engagement

## HED ENERGY RESOURCE PORTFOLIO (2024)

PEAKING RESOURCES FIXED, FUEL-COST PRICING

- JOINTLY OWNED WITH VPPSA MUNICIPALS; PPAs
- FIRM OR FIXED DELIVERY

#### 2024 MWH



BASELOAD RENEWABLE RESOURCES

FIXED/O&M
ONLY PRICING

- HYDROELECTRIC
  - UTILITY OR MUNI-OWNED, MARKET PURCHASES, PPAs, CONTRACTUAL
- BIOMASS & LANDFILL GAS
  - MARKET COVERAGE & PPAs

INTERMITTENT RENEWABLE RESOURCES

- UTILITY & SMALL-SCALE SOLAR
  - PPAs; NET-METERED
- WIND
  - LARGE AND SMALL SCALE PPAs
- VERMONT STANDARD OFFER PROGRAM

## **EXISTING POWER SUPPLY RESOURCES**

**Table 12: Existing Power Supply Resources** 

Resource	2024 MWH	% Of MWh	2024 MW	Delivery Pattern	Price Pattern	REC	Exp. Date
2019 Planned Purchase	2,538	6.85%	1.163	Firm	Fixed	No	03/31/2024
Brookfield 2023-2027	8,784	23.69%	1	Firm	Fixed	Yes	12/31/2027
Billings Road Solar	2,378	6.41%	1.6	Intermittent	Fixed	Yes	11/03/2046
Chester Solar	938	2.53%	0.725	Intermittent	Fixed	No	06/30/2039
Fitchburg Landfill	3,591	9.68%	0.506	Intermittent	Fixed	Yes	12/31/2031
McNeil Facility	2,904	7.83%	0.0796	Baseload	Fuel Cost	Yes	Life of Unit
NYPA Niagara Contract	3,994	10.77%	0.1042	Baseload	Fixed	Yes	04/30/3032
NYPA St. Lawrence Contract	137	0.37%	0.013	Baseload	Fixed	Yes	04/30/2032
Project #10	113	0.30%	3.88	Peaking	Fuel Cost	No	Life of Unit
Ryegate Facility	1,038	2.80%	0.1435	Baseload	Fixed	Yes	10/31/2032
Short Term Coverage	3,614	9.75%	Varies	Firm	Fixed	No	Varies
Standard Offer Program	937	2.53%	Varies	Intermittent	Fixed	Yes	Varies
Stetson Wind 2023-2027	5,893	15.89%	2.7816	Intermittent	Fixed	Yes	12/31/2027
Stony Brook Station	217	0.59%	1.858	Peaking	Fixed	No	Life of Unit
Wolcott Hydro	0	0.00%	0	Run of River	O&M Only	Yes	Life of Unit
TOTAL	37,077	100.00%					

Source: Vermont ePUC <u>Case No. 25-0853-PET</u> - Town of Hardwick Electric Department 2025 Integrated Resource Plan Filing (dated May 1, 2025);

## Renewable Energy Standard (RES 1.0)

## HED RES OBLIGATION REQUIREMENTS (2025-2035)

Table 15: RES Requirements (% of Total Load Including Losses)

Year	VT_1	Net VT_1	VT_2	VT_3	VT_4
2025	63.00%	57.20%	5.80%	6.00%	0.00%
2026	63.00%	55.70%	7.30%	6.67%	0.00%
2027	63.00%	54.20%	8.80%	7.34%	0.00%
2028	67.00%	56.70%	10.30%	8.00%	0.00%
2029	67.00%	55.20%	11.80%	8.67%	0.00%
2030	67.00%	48.70%	13.30%	9.34%	5.00%
2031	71.00%	51.20%	14.80%	10.00%	5.00%
2032	71.00%	49.70%	16.30%	10.67%	5.00%
2033	71.00%	48.20%	17.80%	10.67%	5.00%
2034	75.00%	50.70%	19.30%	10.67%	5.00%
2035	100.00%	70.00%	20.00%	10.67%	10.00%

Source: Vermont ePUC <u>Case No. 25-0853-PET</u> - Town of Hardwick Electric Department 2025 Integrated Resource Plan Filing (dated May 1, 2025);

## RES 1.0 COMPLIANCE TIERS I - IV

#### TIER I

## TOTAL RENEWABLE ENERGY

 Resources classified as renewable generator capable of delivering RECs to ISO New England markets.

#### TIER II

#### RENEWABLE DISTRIBUTED ENERGY RESOURCES

•In-State Renewables

<5MW and directly connected to the subtransmission or distribution systems. \*Now includes municipalowned hydroelectric generators i.e. Wolcott Hydro

#### TIER III

#### DEMAND-SIDE ENERGY TRANSFORMATION

 Incentivizing customers through rebates and programs to reduce fossil fuel usage.

#### TIER IV

### NEW RENEWABLE ENERGY

•Renewable energy generated and put into service on or after January 1, 2010 located within the ISO-New England/New England region.

# Customer Programs & Services

## Customer Programs & Services



## Business Energy Repayment Assistance Program (BERAP)

Joint VPPSA member utility grant program

Offers low interest loans to commercial customers that can cover 100% of Tier III eligible project costs.

For more information, visit:

berap.vppsa.com

Cabot Hosiery Mills (Northfield) Ribbon Cutting:

https://vppsa.com/cabot-hosiery-mills-celebrates-energy-upgrades-with-ribbon-cutting-ceremony/



## **Smart Hours Pilot Program** (Residential EV Charging)

EV Tariff Rider Pilot gives customers a new way to manage energy use by giving offering dynamic, market-based pricing for EV charging loads. Rather than having a fixed or tiered rate, eligible customers can use hourly energy prices to charge EVs at home when energy costs are lowest.

For more information, visit:

https://vppsa.com/resources/rebate-forms/smarthours/

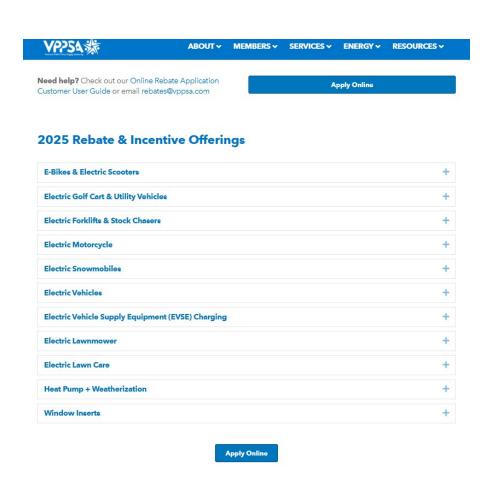
## Customer Rebate & Incentive Programs

#### **Downstream (Post-Purchase) Rebates**

- On behalf of member utilities (including HED), VPPSA administers a robust rebate and incentive program for customers.
- Several enhanced incentives available for income-qualifying customers
- More info at: <u>www.vppsa.com/rebates</u>

#### Midstream (Point-of-Purchase) Rebates

- HED offers several EVT-Administered rebates such as heat pumps and wood/pellet stoves through the statewide midstream (point-of-sale) program.
  - EVT also has enhanced rebates for HED customers: https://www.efficiencyvermont.com/vppsa
- HED also partners with several EV dealerships to offer point-of-sale incentives for the purchase of all-electric and hybrid electric vehicles.



## Customer Programs & Services (Coming Soon)...



#### Affordable Community Renewable Energy (ACRE) Grant: "Field-to-Family"

Joint VPPSA member utility grant program

Offers reduced cost, renewable energy block with membership for income qualifying customers.

HED Enrollment Goals: 99 participants with \$1,573 in energy savings over a 5-year program period.



## Energy Storage Access Program (ESAP) Grant Projects

Joint grant program: VPPSA member utilities; Washington Electric Coop; Burlington Electric Department

Part 1: Funding to solicit, select, and implement a common Distributed Energy Management System (DERMS) – In Progress

Part 2/3: Funding to procure and install energy storage systems (ESS) at critical municipal owned buildings and for income qualifying residential customers – Initial Phases

# Future Project Priorities & Initiatives

## Capital Investments & Improvements



Financing through traditional loans and bonds



**FEMA Reimbursement Programs** 



Joint Grant Programs (VPPSA & State Programs)



Tariff/Rate Increase (13.24% Rate Increase filed 4/16/2025, <u>Case No. 25-0729-TF</u>)

## Future Projects & System Improvements



**Power Systems Engineering Study:** Identify & Prioritize Capital Improvement Projects



**Grid Modernization & Digitization** (IT/OT Investments): Website & Customer Systems, GIS, AMI, OMS, DERMS, etc.



**Resilience & Reliability:** Strategic analysis of energy storage system solutions and interconnecting DER



**Community Partnerships & Collaboration**: Engage with community stakeholders to support grid improvement projects

## Thank you.

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