

11/1/2022

# Efficiency Vermont Demand Resource Plan Update

**VSPC Forecasting  
Subcommittee Meeting**

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Efficiency  
Vermont

# DRP Stakeholder Engagement Goals

1

**Understand and integrate stakeholder feedback** into our proposal – including a **new focus on gathering input from underserved Vermonters** and the organizations that serve them

2

**Increase the value that Efficiency Vermont delivers to partners and customers** by engaging them in the DRP regulatory process

3

**Build a record of documented stakeholder engagement and feedback**, including how it shaped our proposal

# Context and Background

## For the 2021-3 DRP

- Interviewed 31 partners and customers
- Focused on:
  - Large business customers
  - State agencies
  - Low-income service providers
  - Environmental organizations
  - Economic development organizations
  - Utility partners
- Technical feedback from the VSPC Forecasting Subcommittee

## For the 2024-6 DRP

- Interviewed 58 partners and customers
- Focused on:
  - Large business customers
  - State agencies
  - Low-income service providers
  - Environmental organizations
  - Economic development organizations
  - Utility partners
  - Advocates and service providers for underserved residential customers
  - Trade allies and supply chain partners
- Public Survey (1,300+ respondents) & leveraging existing public research data/insights
- Technical feedback from VSPC Forecasting Subcommittee

# Key Takeaways *from stakeholder feedback*

## Focus on GHG Reduction and Equity

Both were very broadly supported by partners and customers

## Continue to improve Access and Flexibility for Core EEU services

Both business and residential customers want a clear and simple process – and to get Efficiency Vermont support for a broader range of energy projects

## Efficiency Vermont plays a critical Coordinating role

Partners and customers look for EVT support at a broad level – and beyond energy savings

# Key Takeaways *from stakeholder feedback*

## A small budget increase is acceptable, even if the EEC increases

Most stakeholders felt this was a reasonable approach. There was not a strong desire to move to three year versus annual adjustments for the Energy Efficiency Charge (EEC).

## Future of Act 151 Transportation programs

Though stakeholders were generally supportive of Efficiency Vermont transportation efforts, the future of the Act 151 pilot is ultimately up to the legislature

# 2024-6 DRP Proposal Direction - *Supported by Stakeholder Feedback*

## **Focuses on GHG reduction**

## **Focuses on Equity**

## **Increases budget by 2% per year**

- Doubles the weighting of the current GHG performance metric
- Support for new GHG measures
- Devotes resources to public engagement and defining updated equity metrics
- New equity measures to enable flexibility and easier access for underserved residential and business customers
- Increases low-income budget
- Reflects a very conservative approach to managing inflationary pressures
- Continue to recalculate annually

# DRP Proposal Direction

**Continues coordination – while quantifying costs/benefits**

**Improves the value & flexibility of core Efficiency Vermont services**

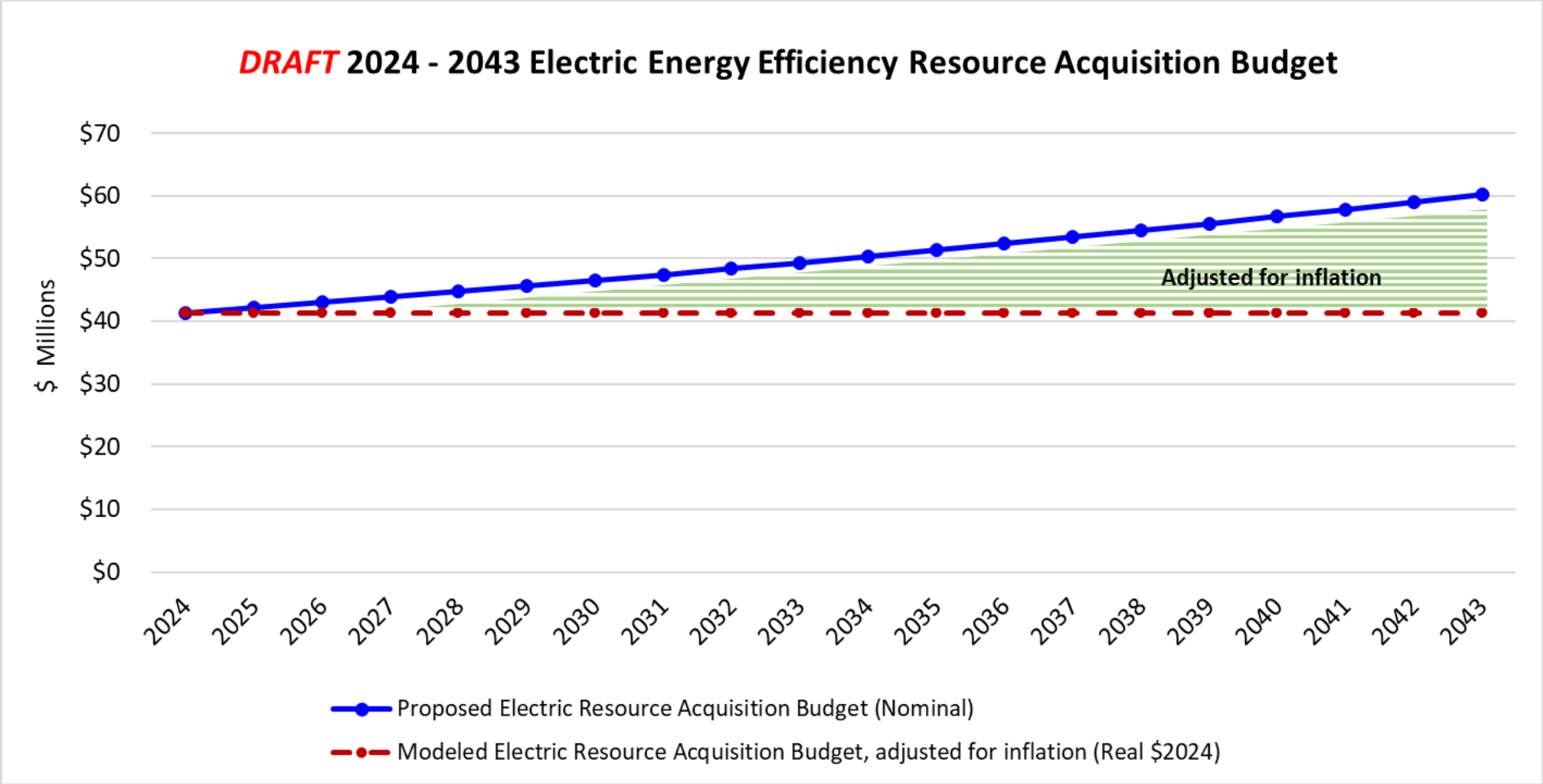
**Does not include Act 151 transportation programs**

- Continue Better Building by Design and Best Practices Exchange forums
- Streamline systems & processes for federal, state, and Tier 3 implementation
- Work with regulators on VEIC indirect rate
- Flexible Load Management continues
- Energy Savings Account continues
- New measures for business and residential
- Focus on underserved (small businesses, renters)
- Legislative decision will be needed in 2023

Draft  
Electric DRP  
Budget Proposal  
and  
Modeling Results



# Draft Proposed Electric Budget



- **Target Annual Electric RA Budget for Model: \$41.3M Flat**
- **2023 Estimated Electric RA Budget: \$40.5M**
- **Assumes a rate of inflation of 2% over 20 years**

# Electric Residential, C&I, and Low Income Resource Acquisition (RA) Budget Sector Splits

EEC Sector Budgets					
	Draft EEC Annual RA Budget	% Residential	Annual Residential Budget	% C&I	Annual C&I Budget
<b>2024-2027</b>	\$41.3M	43%	\$17.8M	57%	\$23.5M
<b>2028-2032</b>	\$41.3M	46%	\$19.0M	54%	\$22.3M
<b>2033-2043</b>	\$41.3M	48%	\$19.8M	52%	\$21.5M

Last DRP had 2024-2027 RES % at 43% through 2027 then increasing to 48% by 2033

	Draft EEC Annual RA Budget	% Low Income	Annual Low Income Budget
<b>2024-2043</b>	\$41.3M	12.1%	\$5.0M

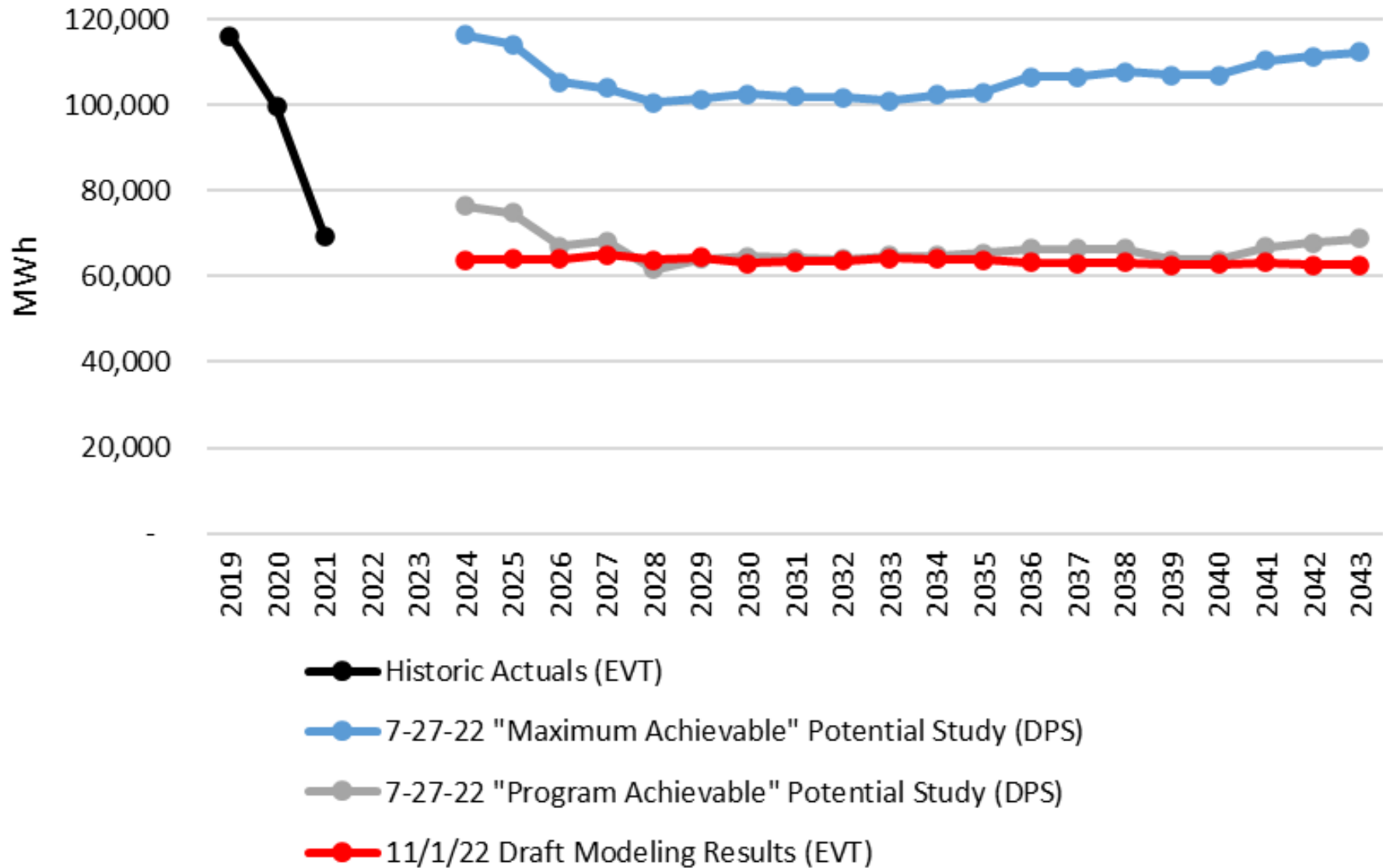
Last DRP set low income budget target at 11%

# Evolving Services Budgets

	2024	2025	2026	2024-2026
Flexible Load Management (FLM)	\$1.17M	\$1.17M	\$1.17M	\$3.51M
Refrigerant Management	\$1.45M	\$1.45M	\$1.45M	\$4.35M
<del>Act 151 (Transportation + Thermal)</del>	<del>\$1.98M</del>	<del>\$1.98M</del>	<del>\$1.98M</del>	<del>\$5.94M</del>
Energy Savings Accounts (ESA)	\$1.40M	\$1.40M	\$1.40M	\$4.20M
<del>Total</del>	<del>\$6.0M</del>	<del>\$6.0M</del>	<del>\$6.0M</del>	<del>\$18.0M</del>
<b>Total</b>	<b>\$4.0M</b>	<b>\$4.0M</b>	<b>\$4.0M</b>	<b>\$12.1M</b>

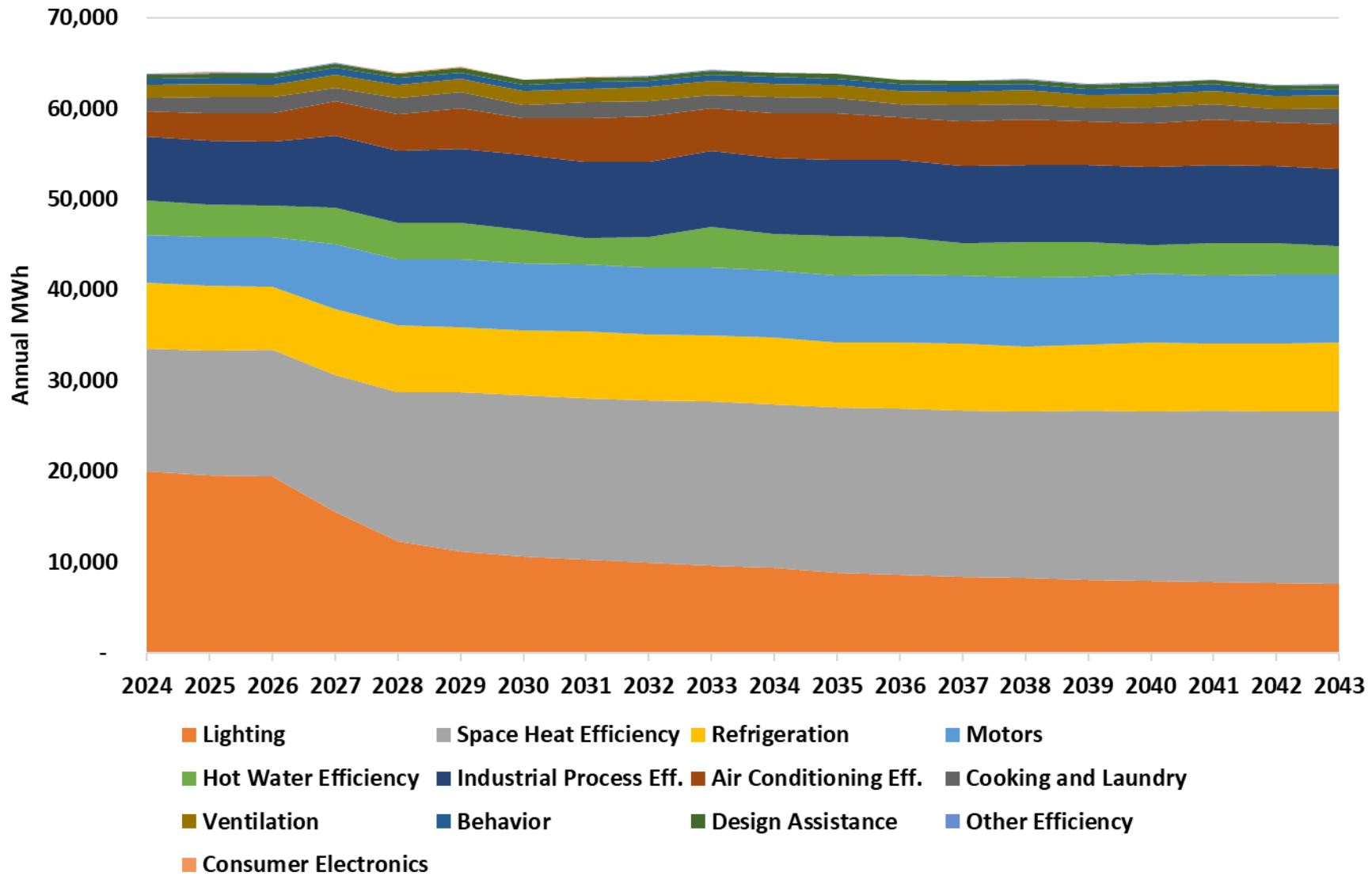
Act 151 budget removed from draft DRP model as current transportation pilot ends 12/31/23. Budget in model shifted to increased commercial and industrial lighting from 2024-2027 than increased weatherization of homes electrically heated by heat pumps from 2028-2043.

## Annual MWh Savings

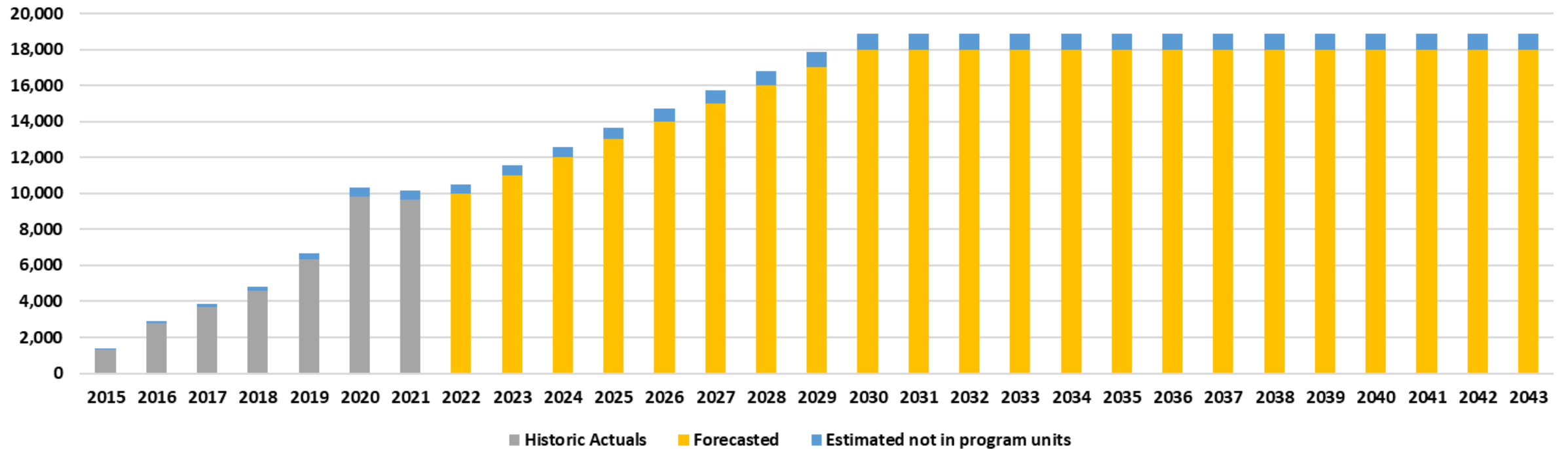


## Portfolio Annual MWh by End-Use

(11-1-22 Draft Modeling Results)

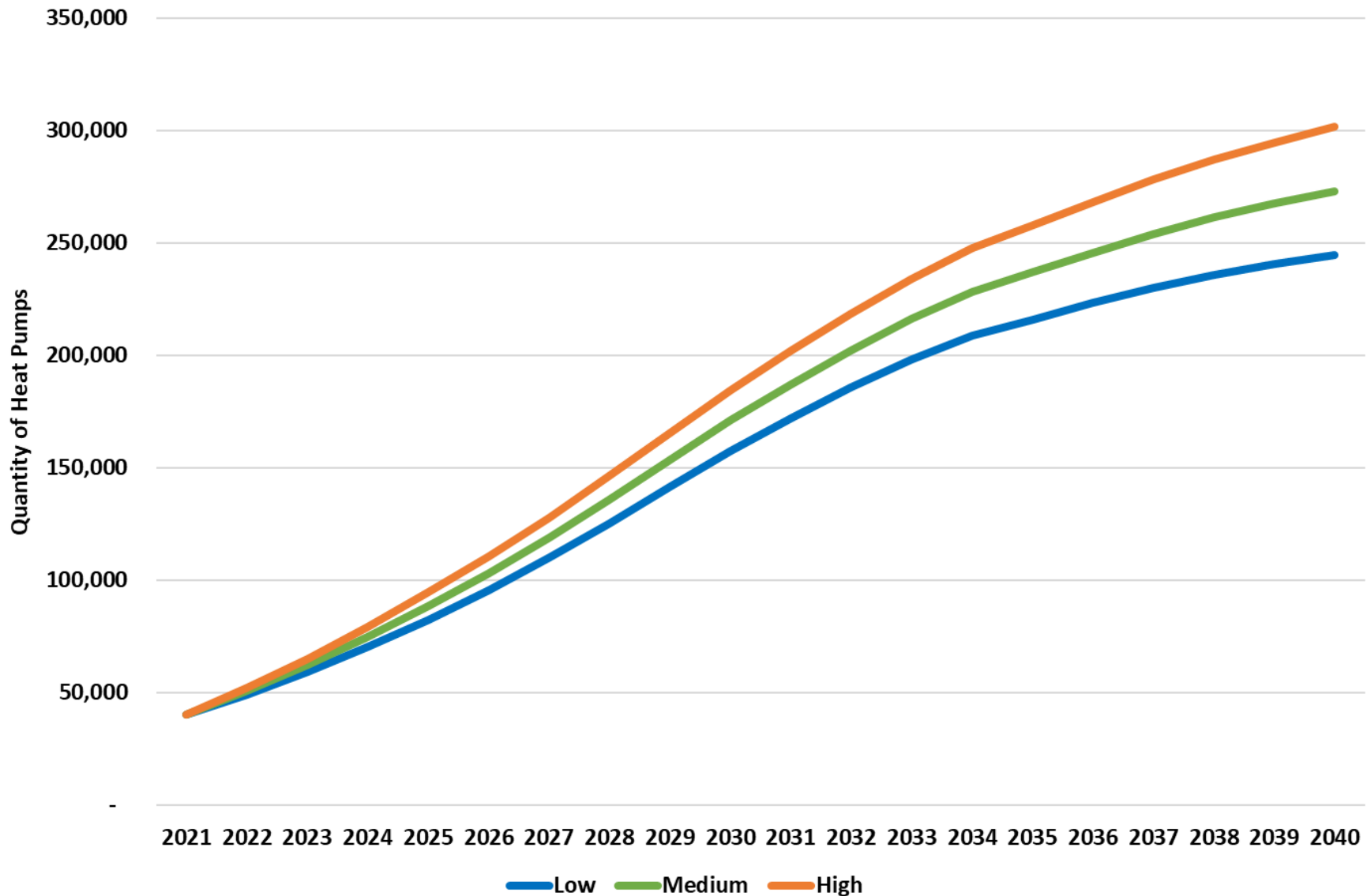


### Vermont Forecast of Space Heating Heat Pumps - Annual Incremental Installations

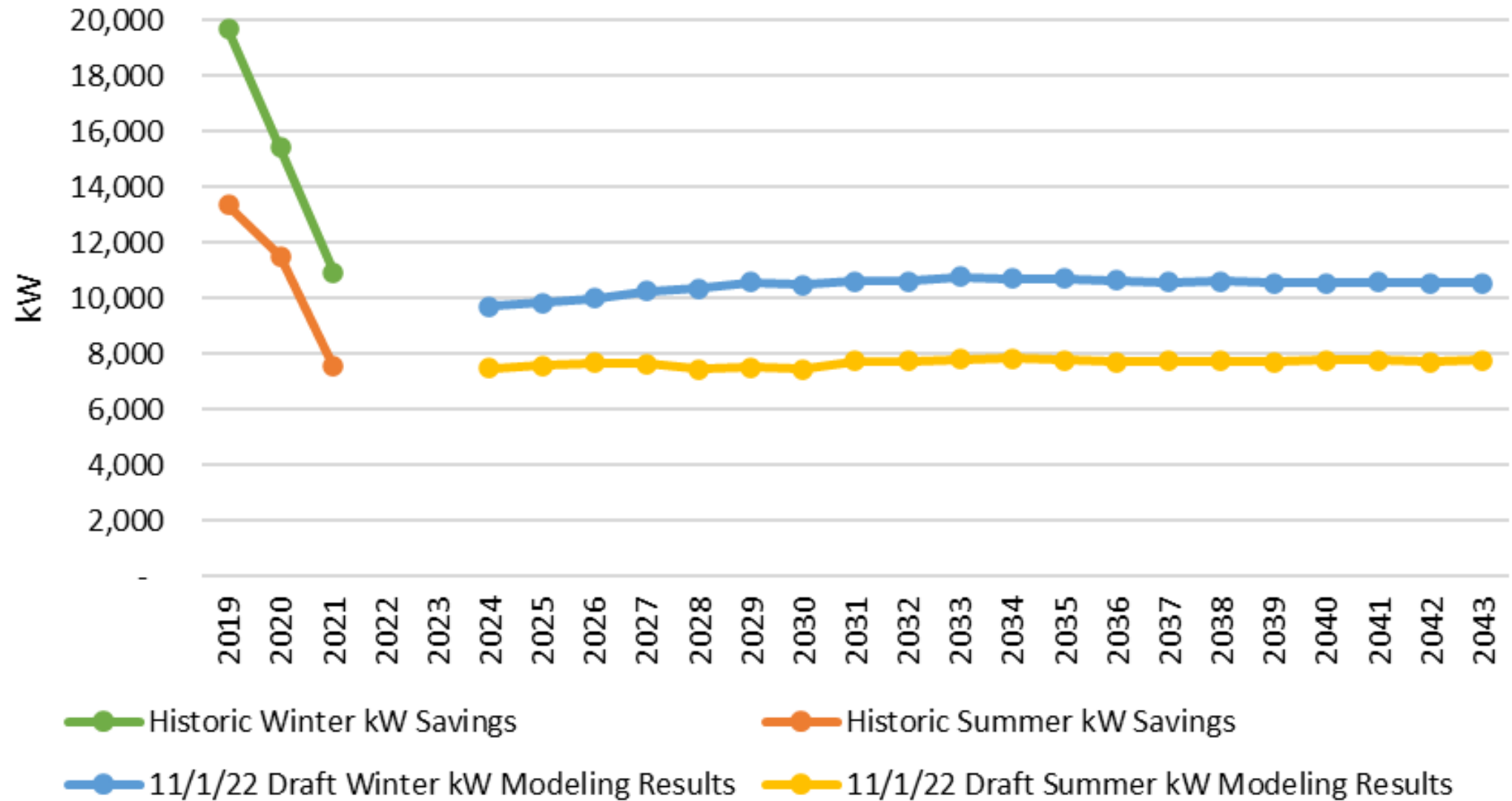


These totals represent all types of space heating heat pumps including ductless, ducted, air-to-water, and ground source systems.

**Cumulative Statewide Quantity of New Heat Pumps Estimated to Add Electric Load in Vermont for Various Market Adoption Scenarios**



## Winter and Summer Peak kW Savings



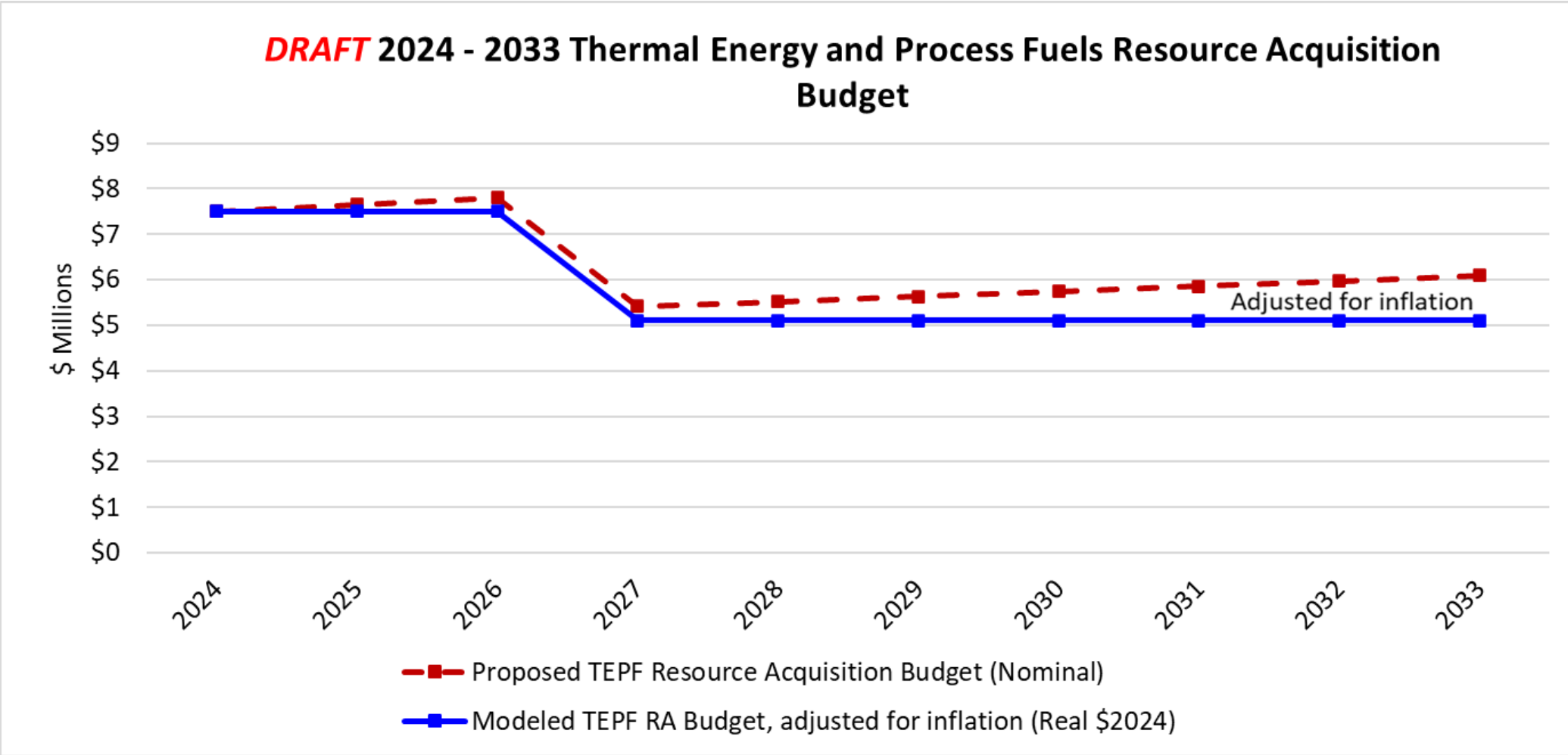


# Draft Electric Results Summary (11/1/22)

<b>Electric QPI #</b>	<b>Electric Performance Metrics</b>	<b>2024-2026</b>
1	Total Resource Benefits	\$185,815,900
2	Annual MWh	191,800
3	Summer Peak kW	22,800
4	Winter Peak kW	29,600
5	Lifetime MWh	2,498,700
6	GHG reductions (Electric energy + non-energy) - Metric Tons CO <sub>2</sub> e	121,400
7	Flexible kW	3,600

# Draft Thermal Energy and Process Fuels (TEPF) DRP Modeling Results

# Draft TEPF Budget



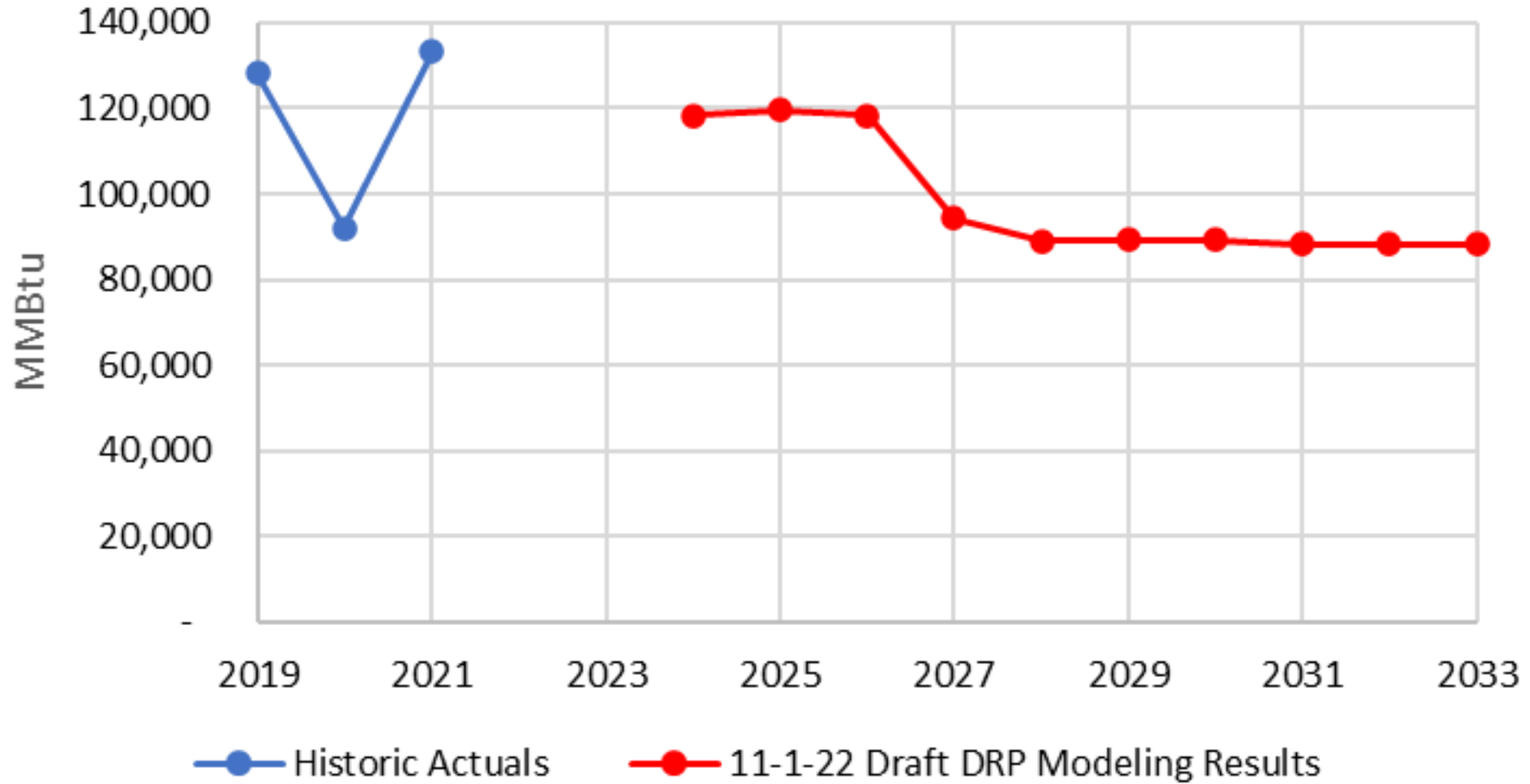
# TEPF Residential, C&I, and Low Income Budget Sector Splits

TEPF Sector Budgets					
	Draft TEPF Annual RA Budget	% Residential	Annual Residential Budget	% C&I	Annual C&I Budget
<b>2024-2026</b>	\$7.5M	75%	\$5.6M	25%	\$1.9M
<b>2027-2033</b>	\$5.1M	75%	\$3.8M	25%	\$1.3M

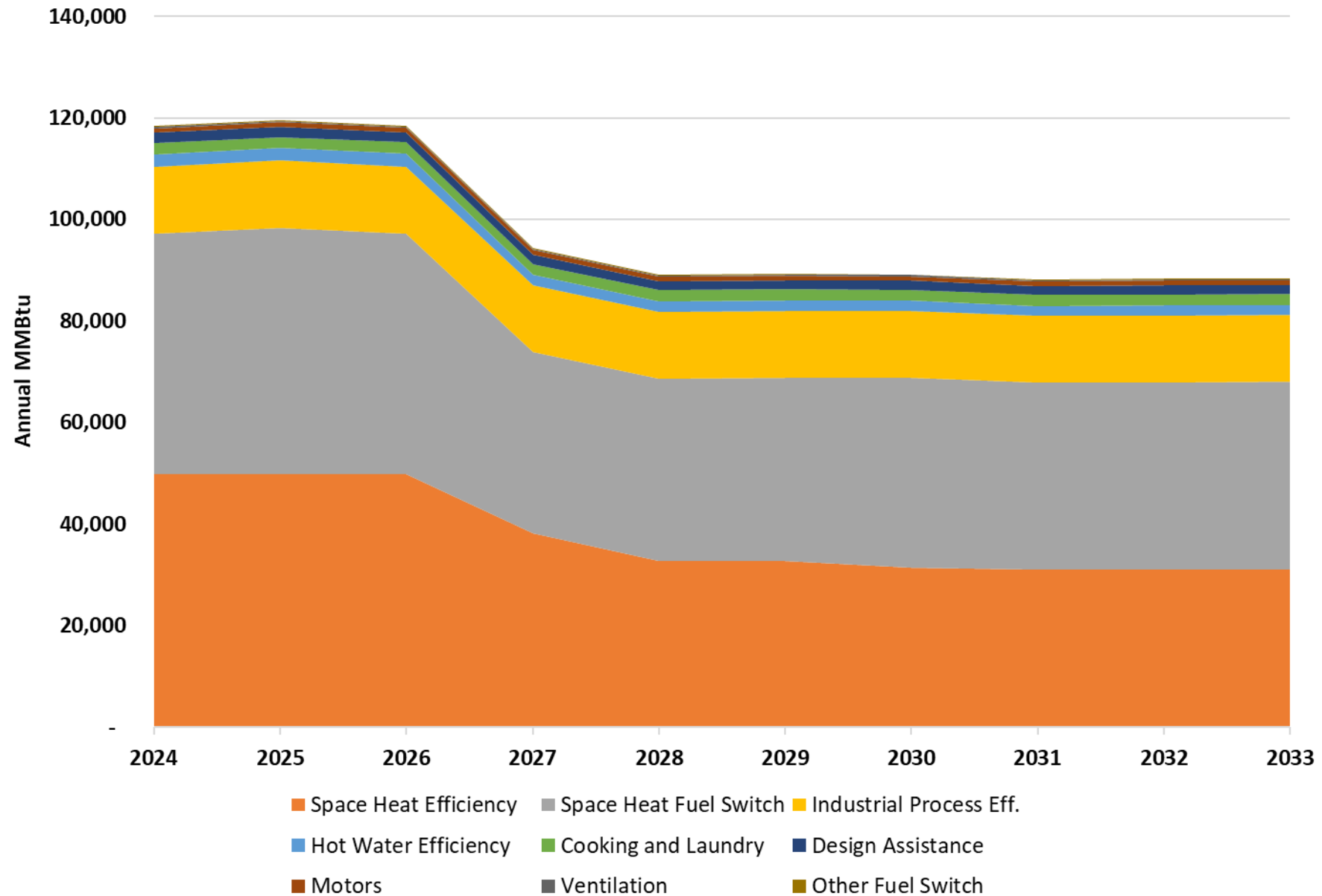
	Draft TEPF Annual RA Budget	% Low Income	Annual Low Income Budget
<b>2024-2026</b>	\$7.5M	21.0%	\$1.6M
<b>2027-2033</b>	\$5.1M	21.0%	\$1.1M

2021-2023 TEPF budget is \$7M per year. Same percentage assumptions for Res, C&I, and Low Income as shown here.

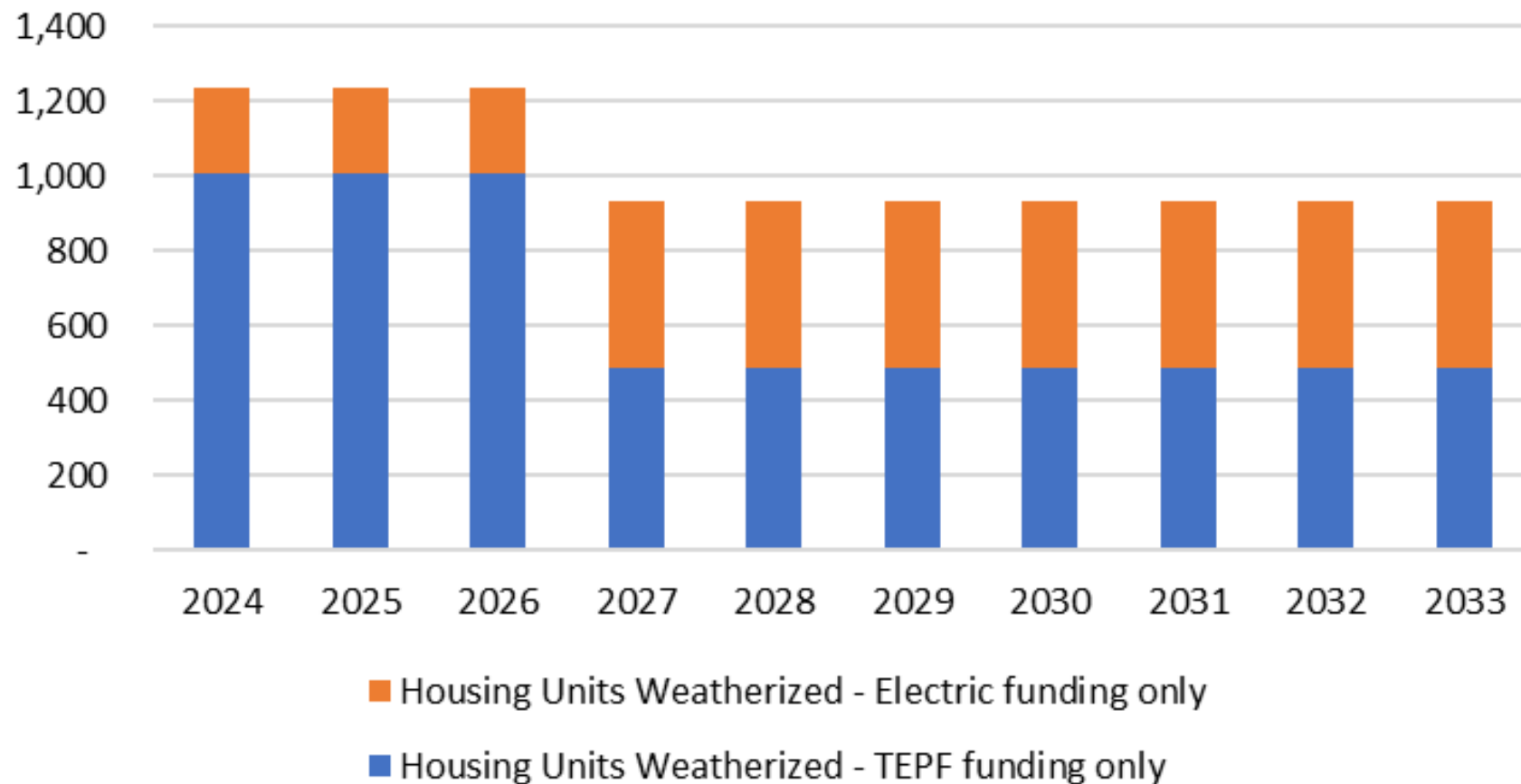
## TEPF Annual MMBtu Savings



## Thermal Energy and Process Fuels MMBtu Savings by End-use



## Forecast of Housing Units Weatherized



- Includes both multifamily and single-family homes.
- 2024-2026 totals are 50% moderate/low income and 50% market rate
- 2027 – 2033 totals are 100% moderate and low income

# Draft Thermal Results Summary (11/1/22)

TEPF QPI #	TEPF Performance Metrics	2024-2026
1	MMBTU	356,300
2	Residential Comprehensiveness	
2a	a. Air Leakage Reduction	34%
2b	b. Insulation	44%
2c	c. Weatherization & Heating Systems	16%
3	Number of Housing Units Weatherized	3,700
4	GHG reductions (TEPF energy + non-energy) - Metric Tons CO <sub>2</sub> e	20,600



Thank you!

Questions?

Input/Feedback?



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