Efficiency Vermont's 2027-46 Electric and 2027-36 Thermal Energy and Process Fuels (TEPF) Demand Resources Plan

VSPC Forecasting Subcommittee Meeting

11/17/25

Efficiency Vermont

DRP draft assumptions and preliminary modeling results for Electric and TEPF portfolios.

- 20 year (Electric) and 10 year (TEPF) proposed budgets and modeled savings forecasts
- Residential, C&I, and low income sector budget splits
- Program/market assumptions:
  - Lighting
  - EEMA
  - FLM
  - Heat pumps
  - Weatherization

Efficiency Vermont

DRP Strategic Framework

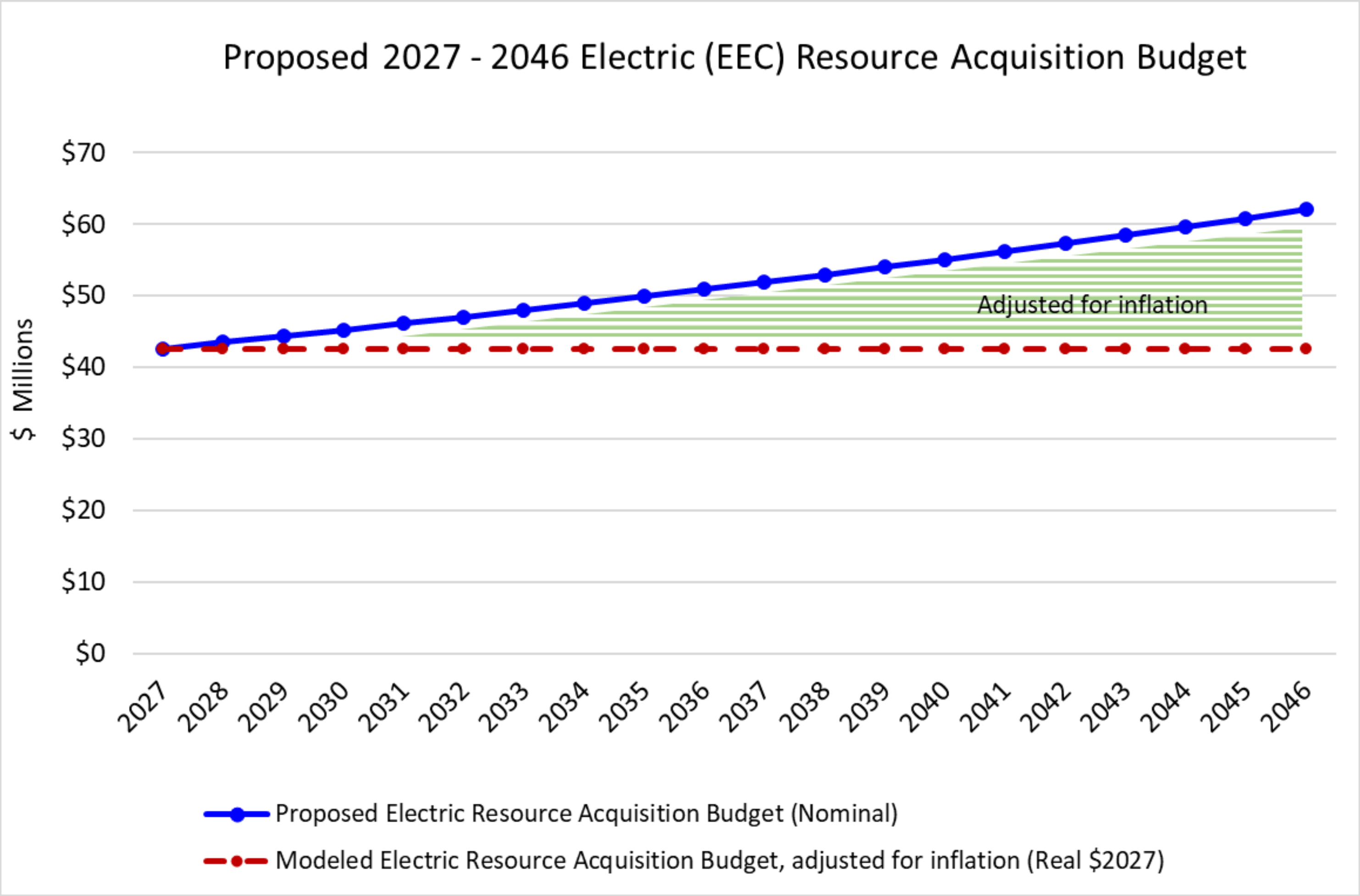
Setting boundary conditions for Efficiency Vermont's Proposal

- Electric RA - **$42.6M/yr**, adjust for 2% inflation
  - Focus on Electric System Benefits
  - Creation of efficiency opportunities through non-lighting measures
  - Continue FLM support at current pace
  - Maintain strong market-opportunity savings for cold climate heat pumps

- TEPF RA - **$13M/yr**, focus on continued Wx support
  - Budget growth from increase RGGI revenues
  - Maintain current HPWES incentive levels *as much as possible*
  - Support WAP and moderate-income home repair funds
  - Launch a new whole-home heat pump retrofit pilot

Electric

Efficiency Vermont Proposed Electric Budget



Target annual electric RA budget used for model: $42.6M flat ($2027)
PUC approved 2026 electric RA budget is $42.98M

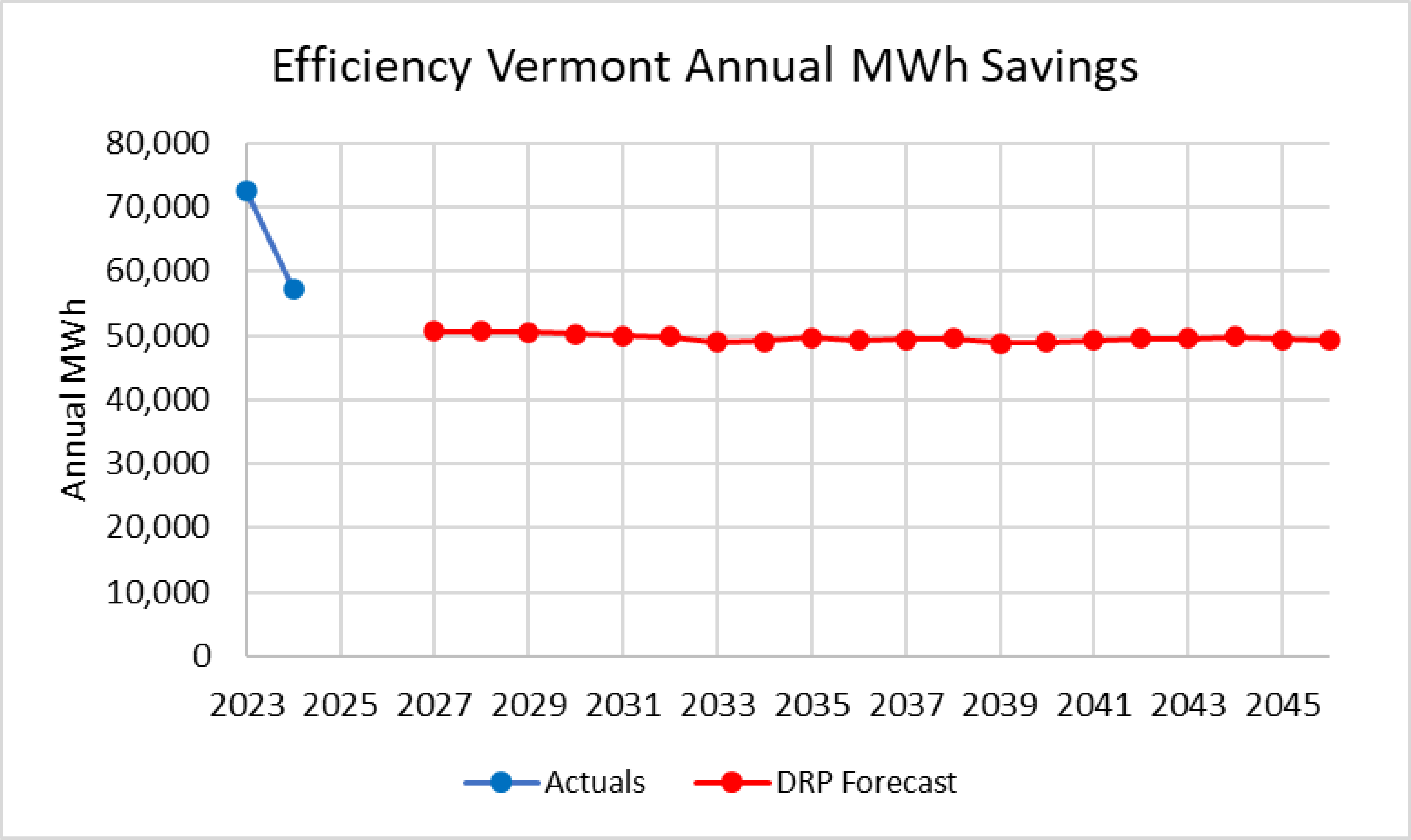
Electric Residential, C&I, and Low Income Modeled Budget Sector Splits

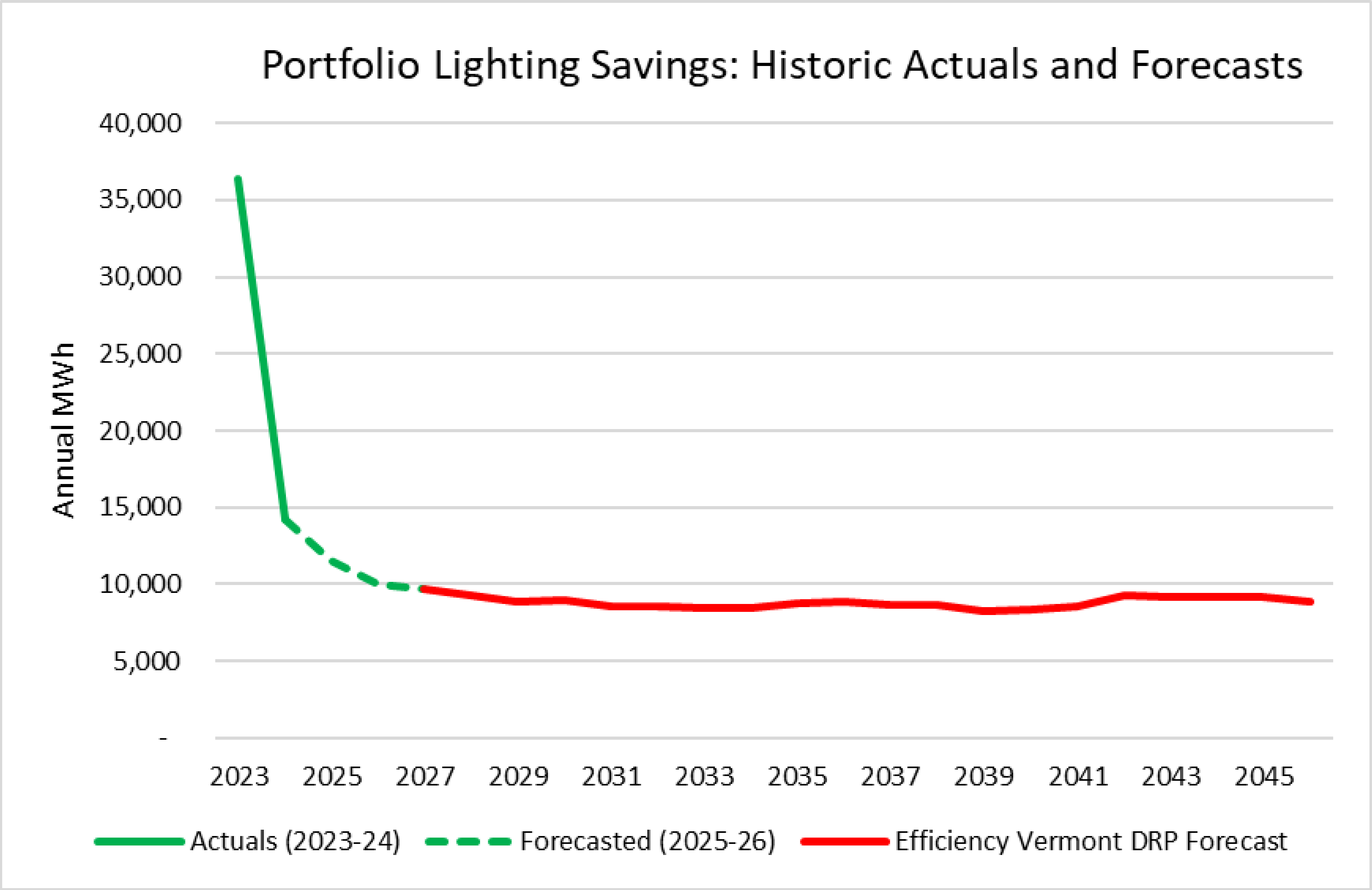
Electric Sector Budgets					
	Proposed Electric Annual RA Budget	Annual Residential Budget	% Residential	Annual C&I Budget	% C&I
2027-2046	$42.6M	$20.4M	48%	$22.2M	52%

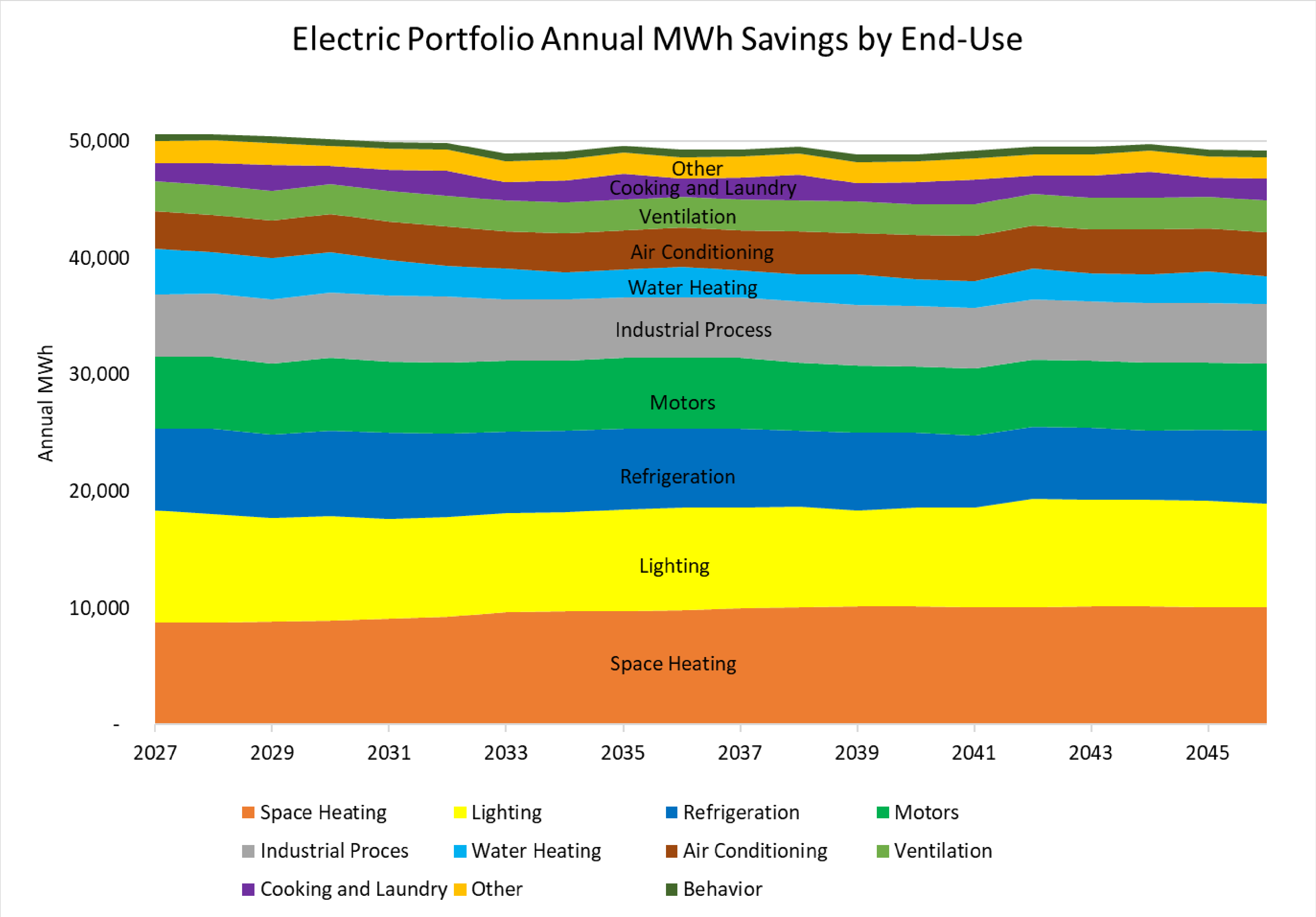
Previous DRP assumed 46% Res / 54% C&I sector split through 2032.

Electric Low Income Budget		
	Annual Low Income Budget	% Low Income
2027-2046	$4.8M	11.3%

Previous DRP set low income modeled budget target at 12.1%.
Shift to 11.3% per PSD guidance and used in the 2025 Potential Study.

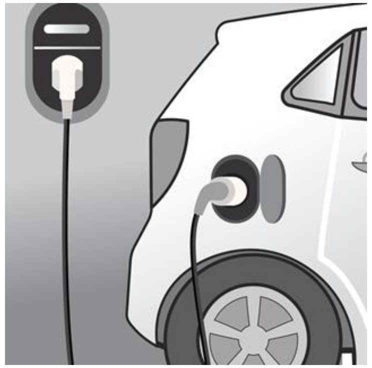

Efficiency Vermont Annual MWh Savings
Annual MWh
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
2023
2025
2027
2029
2031
2033
2035
2037
2039
2041
2043
2045
Actuals
DRP Forecast


Portfolio Lighting Savings: Historic Actuals and Forecasts
Annual MWh
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
2023
2025
2027
2029
2031
2033
2035
2037
2039
2041
2043
2045
Actuals (2023-24)
Forecasted (2025-26)
Efficiency Vermont DRP Forecast



Electric Portfolio Annual MWh Savings by End-Use
Annual MWh
50,000
40,000
30,000
20,000
10,000
-
2027
2029
2031
2033
2035
2037
2039
2041
2043
2045
Other
Cooking and Laundry
Ventilation
Air Conditioning
Water Heating
Industrial Process
Motors
Refrigeration
Lighting
Space Heating
Space Heating
Lighting
Refrigeration
Motors
Industrial Proces
Water Heating
Air Conditioning
Ventilation
Cooking and Laundry
Other
Behavior

Energy Efficiency Modernization Act (EEMA)



Draft Modeling Assumptions:

- No EEMA budget or programs in model.
- Continue Low Income Fuel Switch (LIFS) program at $500k/year.
  - Assumes DUs continue to cover 50% of project cost (up to $2,500) and claim all the fuel switch savings through Tier 3. Efficiency Vermont covers balance (currently ~$5,000/project*). Electric savings captured through mid-stream.
- New High Efficiency Electric Vehicle (EV) measure not in DRP model but measure characterization in development for possible inclusion in the portfolio in the future.

*project cost includes electrical system upgrades (if needed) + 1st year maintenance costs up to $300

Flexible Load Management (FLM)

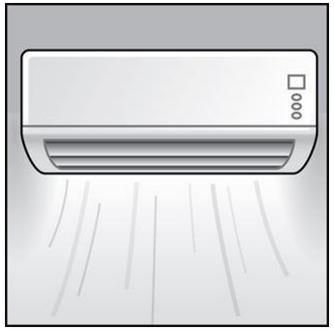
Draft Modeling Assumptions:

- FLM program budget modeled:
  - $750k per year (incentives + non-incentives)

- Across 4 FLM measure types in 3 markets:
  - HVAC, Industrial Process, Domestic Hot Water, EV Charging
  - C&I Retrofit, C&I New Construction, Efficient Products

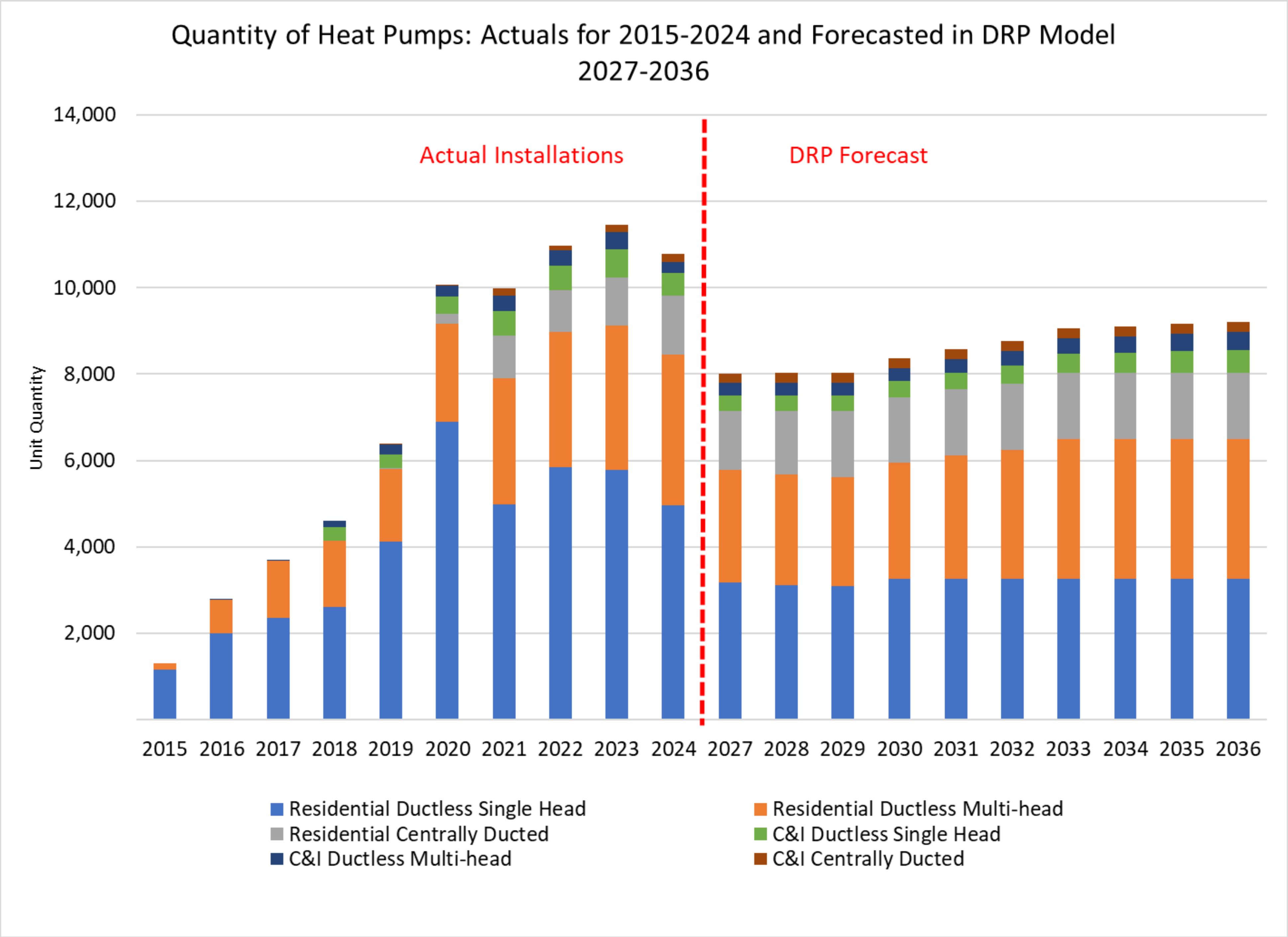
- 3 year (2027-29) Flex Load target: 1,600 Flex kW

Heat Pumps



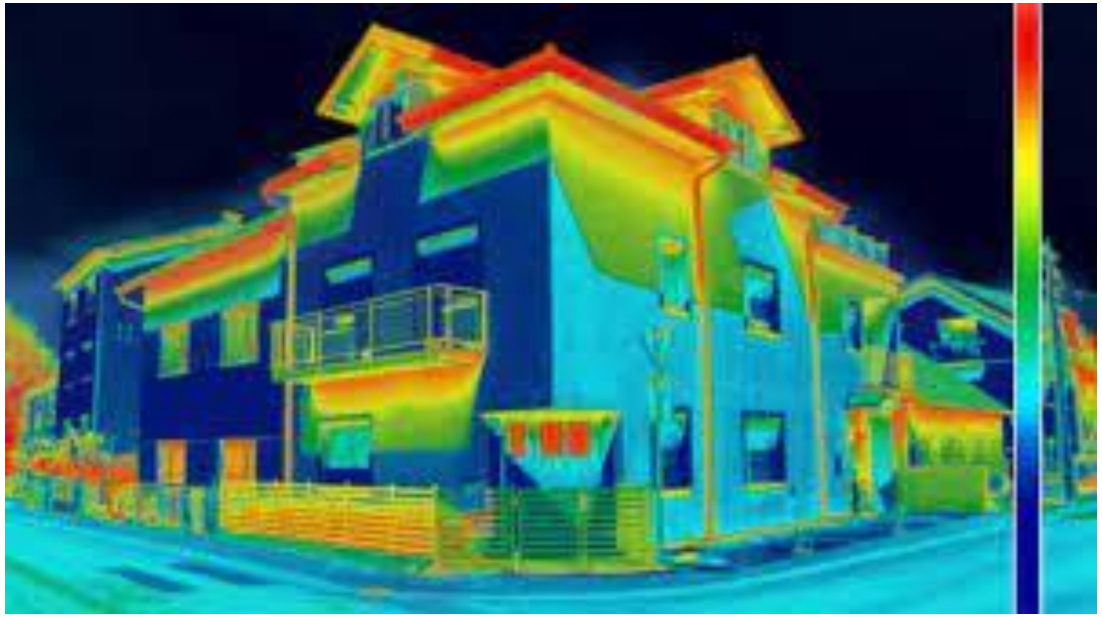
Draft Modeling Assumptions:

- Savings (full load hours) have been adjusted to match PSD recent evaluation with proposed TRM and measure cost adjustments.
- Heat pumps screen in electric model as market opportunity and TEPF model as retrofit with revised savings and costs.
- Quantities in electric model at ~8,000 units/yr for Res and C&I combined, compared to over 10,800 units installed in 2024.
- New "Whole home" heat pump initiative funding in TEPF.
- Heat pumps not supported through Tier III are funded by TEPF and fuel savings claimed. (estimated at12% of heat pumps)



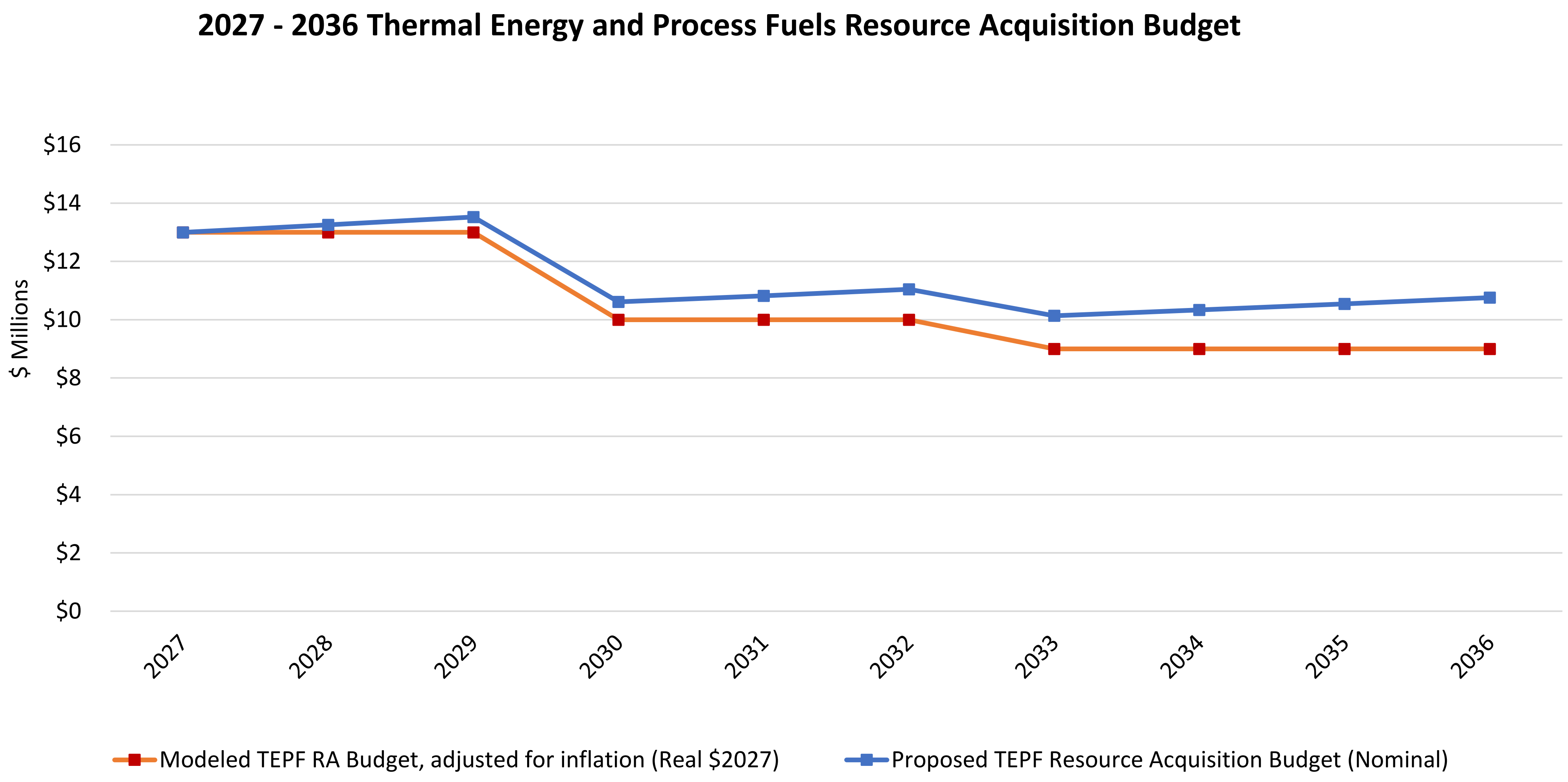
Quantity of Heat Pumps: Actuals for 2015-2024 and Forecasted in DRP Model 2027-2036
Actual Installations
DRP Forecast
Unit Quantity
14,000
12,000
10,000
8,000
6,000
4,000
2,000
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
Residential Ductless Single Head
Residential Ductless Multi-head
Residential Centrally Ducted
C&I Ductless Single Head
C&I Ductless Multi-head
C&I Centrally Ducted

Thermal Energy and Process Fuels (TEPF)



Efficiency Vermont

Efficiency Vermont Proposed TEPF Budget

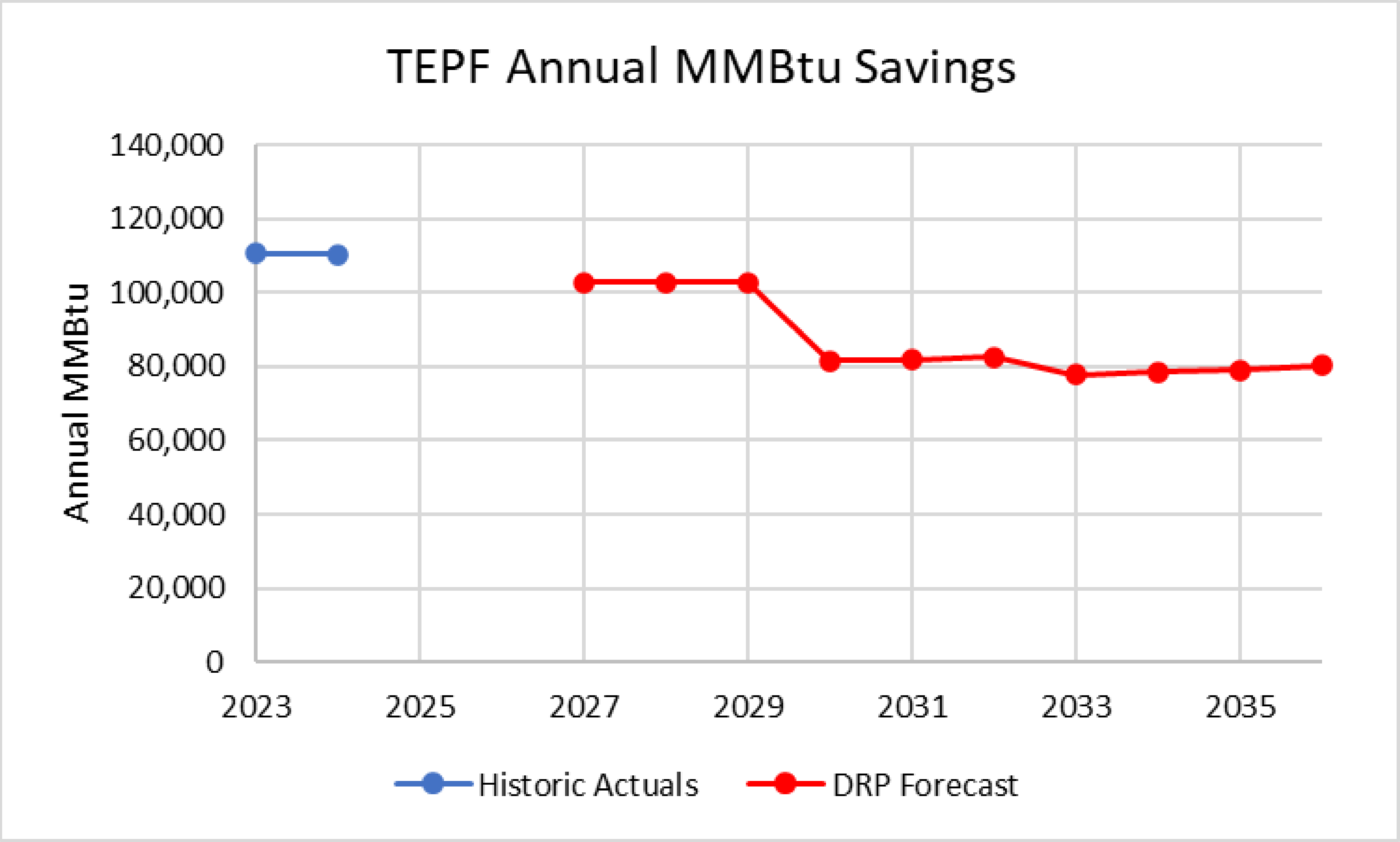


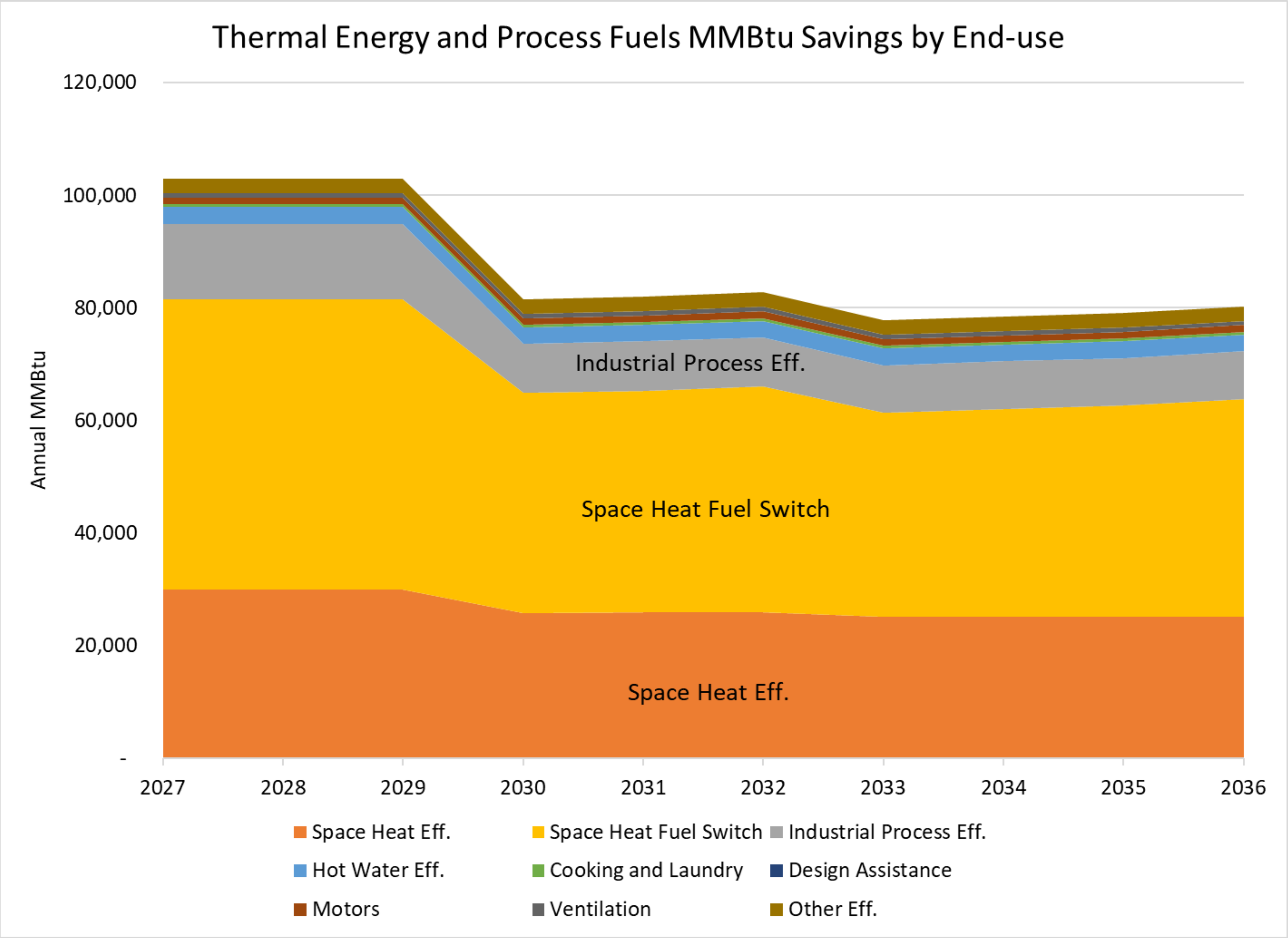
Proposed TEPF Residential, C&I, and Low Income Budget Sector Splits

TEPF Sector Budgets					
	Draft TEPF Annual RA Budget	Annual Residential Budget	% Residential	Annual C&I Budget	% C&I
2027-2029	$ 13,000,000	$ 10,400,000	80%	$ 2,600,000	20%
2030-2032	$ 10,000,000	$ 8,000,000	80%	$ 2,000,000	20%
2033-2036	$ 9,000,000	$ 7,200,000	80%	$ 1,800,000	20%

	Draft TEPF Annual RA Budget	Annual Low Income Budget	% Low Income
2027-2029	$ 13,000,000	$ 3,708,000	29%
2030-2032	$ 10,000,000	$ 2,100,000	21%
2033-2036	$ 9,000,000	$ 1,890,000	21%

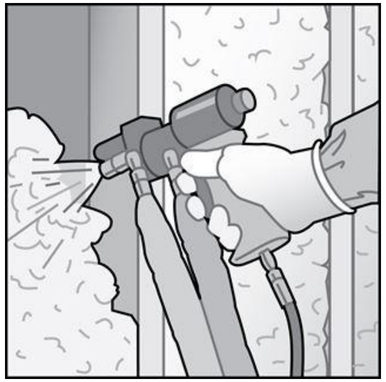
2024-2026 DRP assumed 75% / 25% Res / C&I Sector split and 21% for low income budget target


TEPF Annual MMBtu Savings
Annual MMBtu
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
2023
2025
2027
2029
2031
2033
2035
Historic Actuals
DRP Forecast



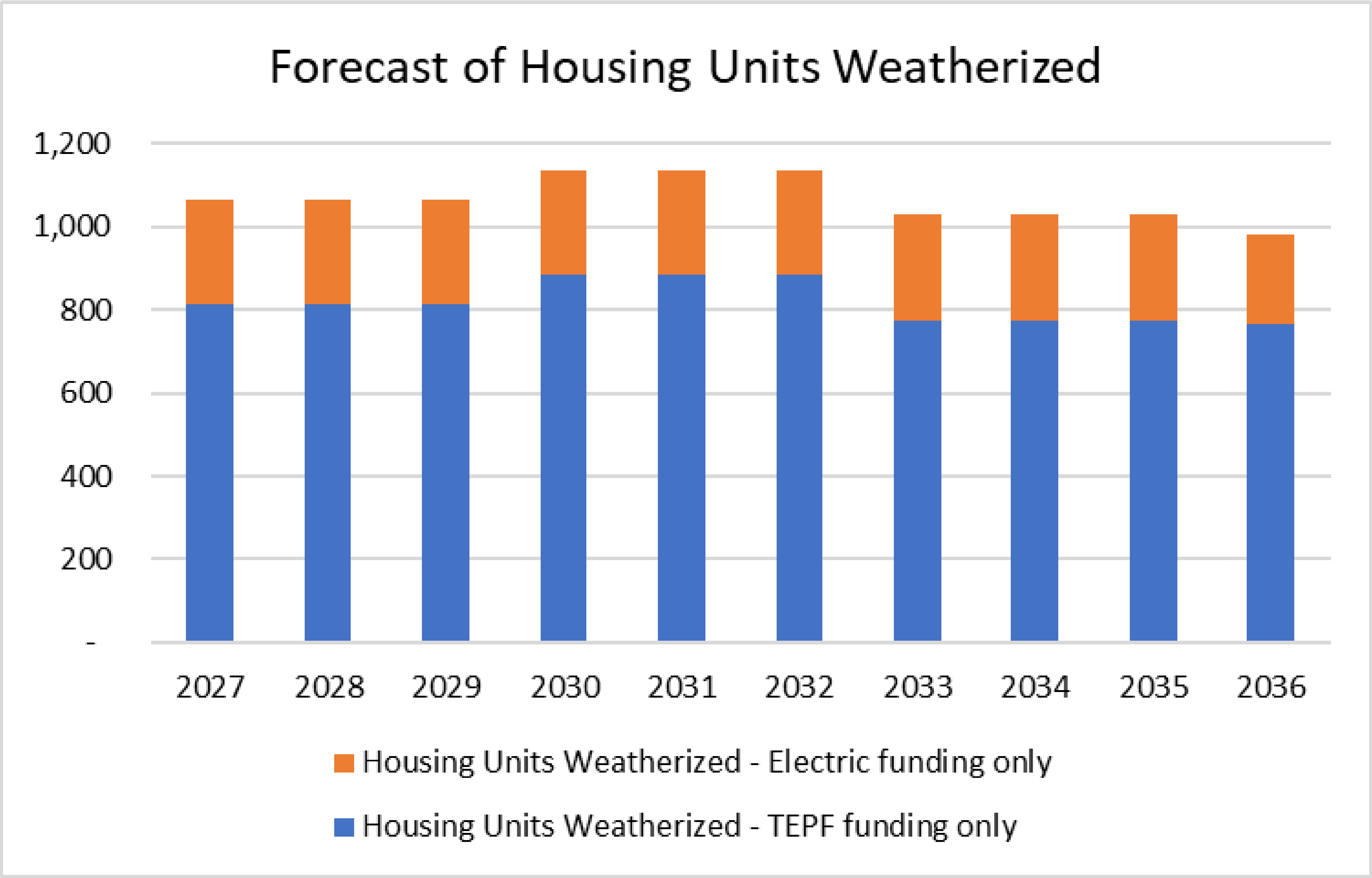
Thermal Energy and Process Fuels MMBtu Savings by End-use
120,000
100,000
80,000
60,000
40,000
20,000
-
Annual MMBtu
Industrial Process Eff.
Space Heat Fuel Switch
Space Heat Eff.
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
Space Heat Eff.
Space Heat Fuel Switch
Industrial Process Eff.
Hot Water Eff.
Cooking and Laundry
Design Assistance
Motors
Ventilation
Other Eff.

Weatherization and Home Repair



Draft Modeling Assumptions:

- Draft model quantities of Home Performance projects:
  - 395 HPwES LMI Projects/yr (84% TEPF / 16% EEC)
  - 382 HPwES MR Projects/yr (60% TEPF / 40% EEC)
- Includes funding for Home Repair and Home Energy Loan Programs with focus on LMI customers
- Budget includes $1.5 M/yr for OEO in 2027-29 for WAP funding


Forecast of Housing Units Weatherized
1,200
1,000
800
600
400
200
-
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
Housing Units Weatherized - Electric funding only
Housing Units Weatherized - TEPF funding only

Questions & Discussion