Meeting Logistics and Facility & Safety Awareness

MEETING LOGISTICS

Thank you for attending tonight's board meeting.

EWEB management and subject matter experts are present in the room and virtually. The meeting is being live streamed and recorded.

Please note that there is not an opportunity for public comment during work sessions.

FACILITY & SAFETY AWARENESS

Visitor access is limited to the board meeting room and restrooms.

Restrooms are located on the 1st floor; exit through the interior door at the back of the room and a Security Officer will direct you to the location.

In the event of an emergency, (such as a fire or security incident) follow all instructions given by staff.

If evacuation is required, please calmly proceed to the nearest safe exit as identified and directed by staff and evacuate away from the building to the farthest points in the parking lots to allow clear and immediate access for first responders.

EWEB Board Work Session

March 18, 2025

Eugene Water & Electric Board

EWEB

Demand Side Potential Assessment

Phase 1 Draft Report & Results

March 18 Board Work Session

Eugene Water & Electric Board

EWEB

Disclaimers*

This is a **study** of **potential**. Practicality is limited by staffing, programs, ramp rates, customer willingness and ability to participate and/or financially contribute, contractor capacity and interest, and equipment availability.

The study will inform a planning process that will include research of the above, guiding principles, scenario evaluations, budget setting, and a Conservation Implementation Plan (CIP)

Agenda

1) **Initial findings of Conservation Potential Assessment (CPA)**

2) **Initial findings of Demand Response Potential Assessment (DRPA)**

3) **Discussion**

Conservation Potential Large, But Varies In Cost-effectiveness

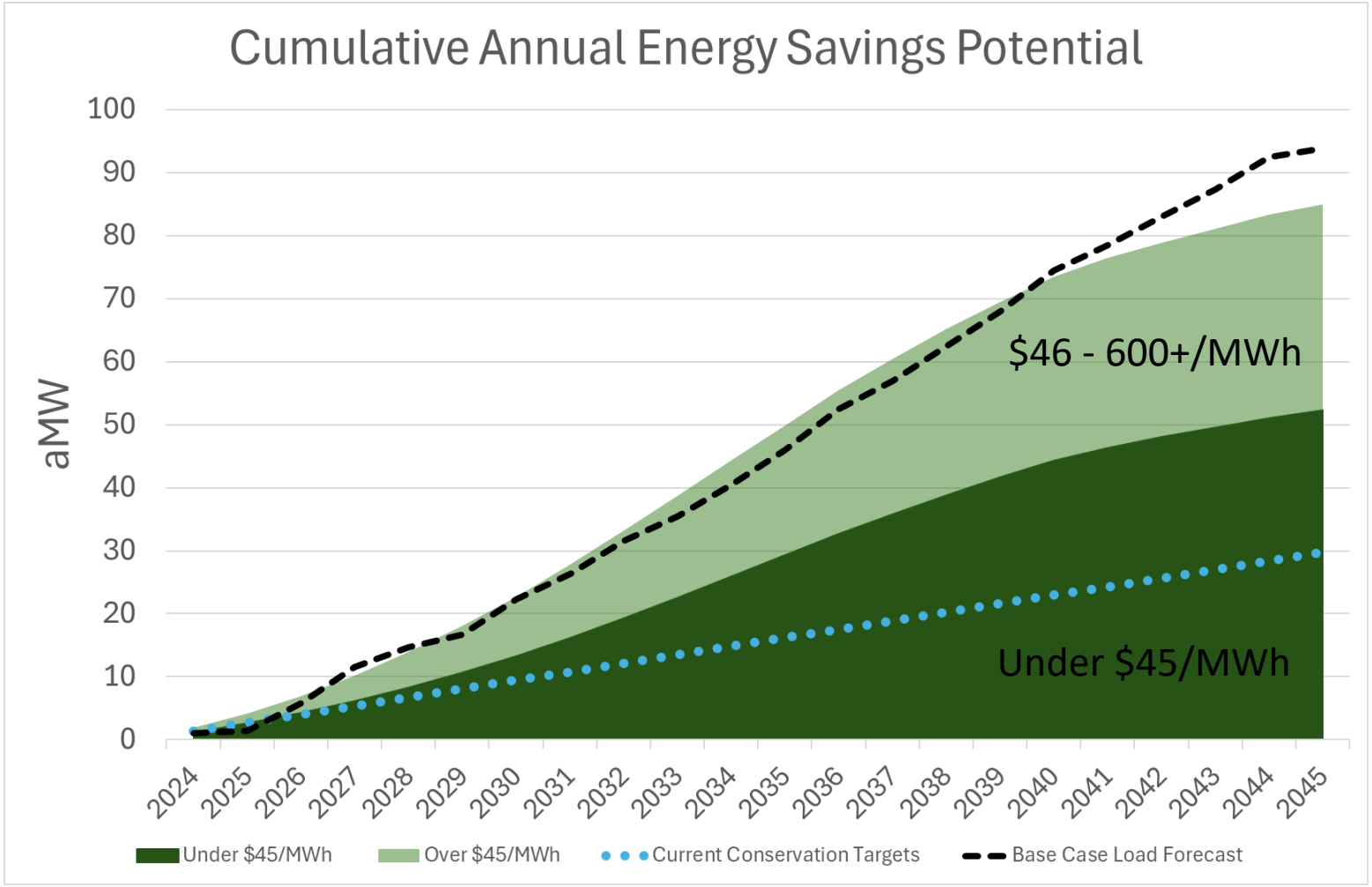
85 aMW achievable potential,
sorted by levelized cost

Levelized cost "bins" of measures allow conservation to compete vs. supply-side

<u>Supply-side rough estimates:</u>
BPA - $39/MWh
New Resource Mix - $55-65/MWh

Under $45/MWh bin larger than current conservation targets

Load growth drives new resource need



Cost of Purchased Conservation Less Than BPA Bills

Allocate from purchased power expense to conservation program spending

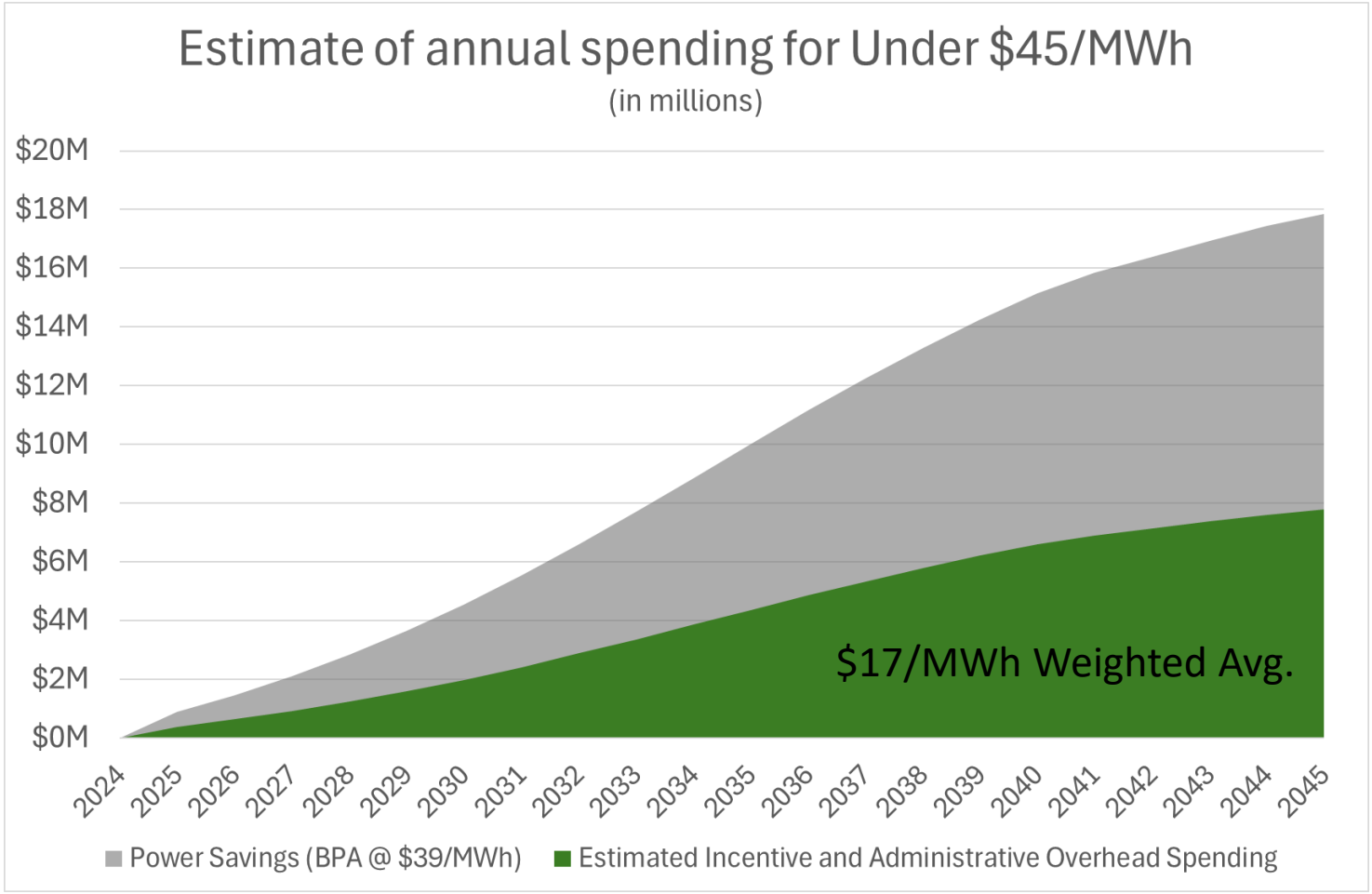
Under $45/MWh bin = $17/MWh weighted avg.

Incentives + marketing/staffing overhead

Rough estimate of future investments:

- $2 million annually by 2030
- $8 million annually by 2045

Spending in addition to EWEB's current budgeted programs which reflect our values, not just cost-effectiveness.

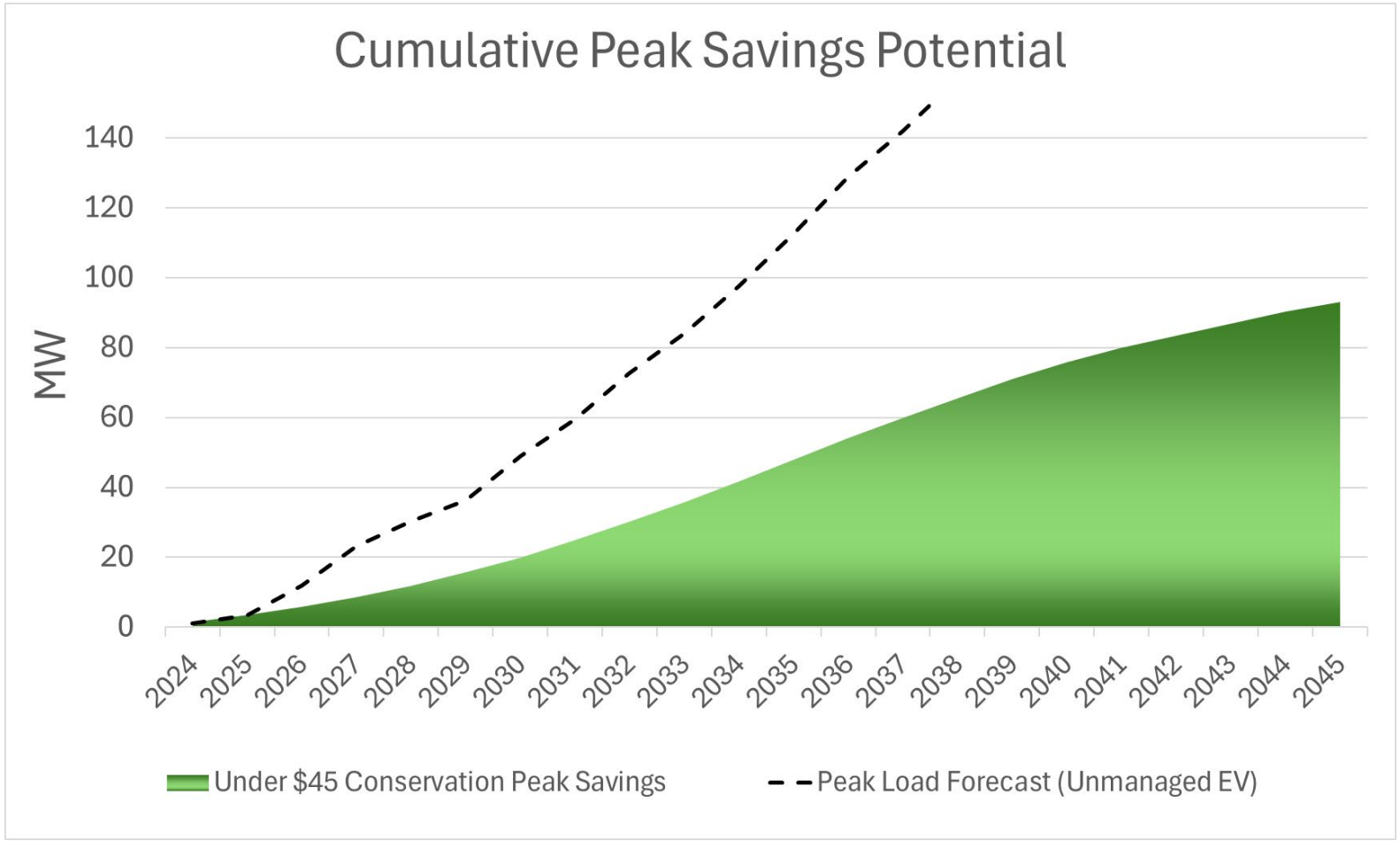


Under $45/MWh Bin's Peak Savings Impactful

Under $45/MWh Peak savings could offset half of new peak load growth

Peak savings primarily driven by:

- Residential Smart Thermostats (23 MW)
- Residential Duct Sealing (14 MW)
- Commercial Lighting (11 MW)



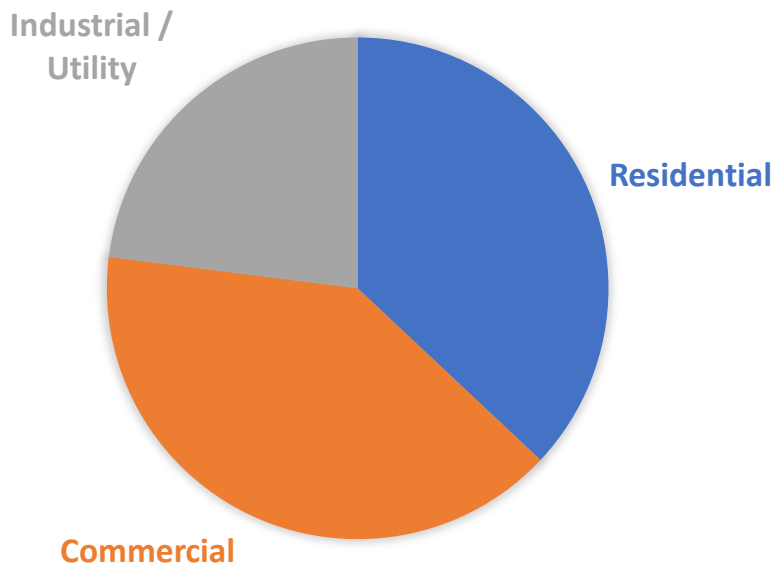
Under $45/MWH Bin Measure Composition

Residential Sector Savings – 37%
- Duct Sealing
- Thermostats
- HPWH

Commercial Sector Savings – 40%
- Strategic Energy Management
- Fans
- Lighting

Industrial/Utility Sector Savings – 23%

Residential Conservation Measures	
Measure Category	22-Year Achievable %
Heating, Ventilation and AC	43%
Air Source Heat Pump	
Duct Sealing	
Smart Thermostat	
Heat Pump Water Heater	29%

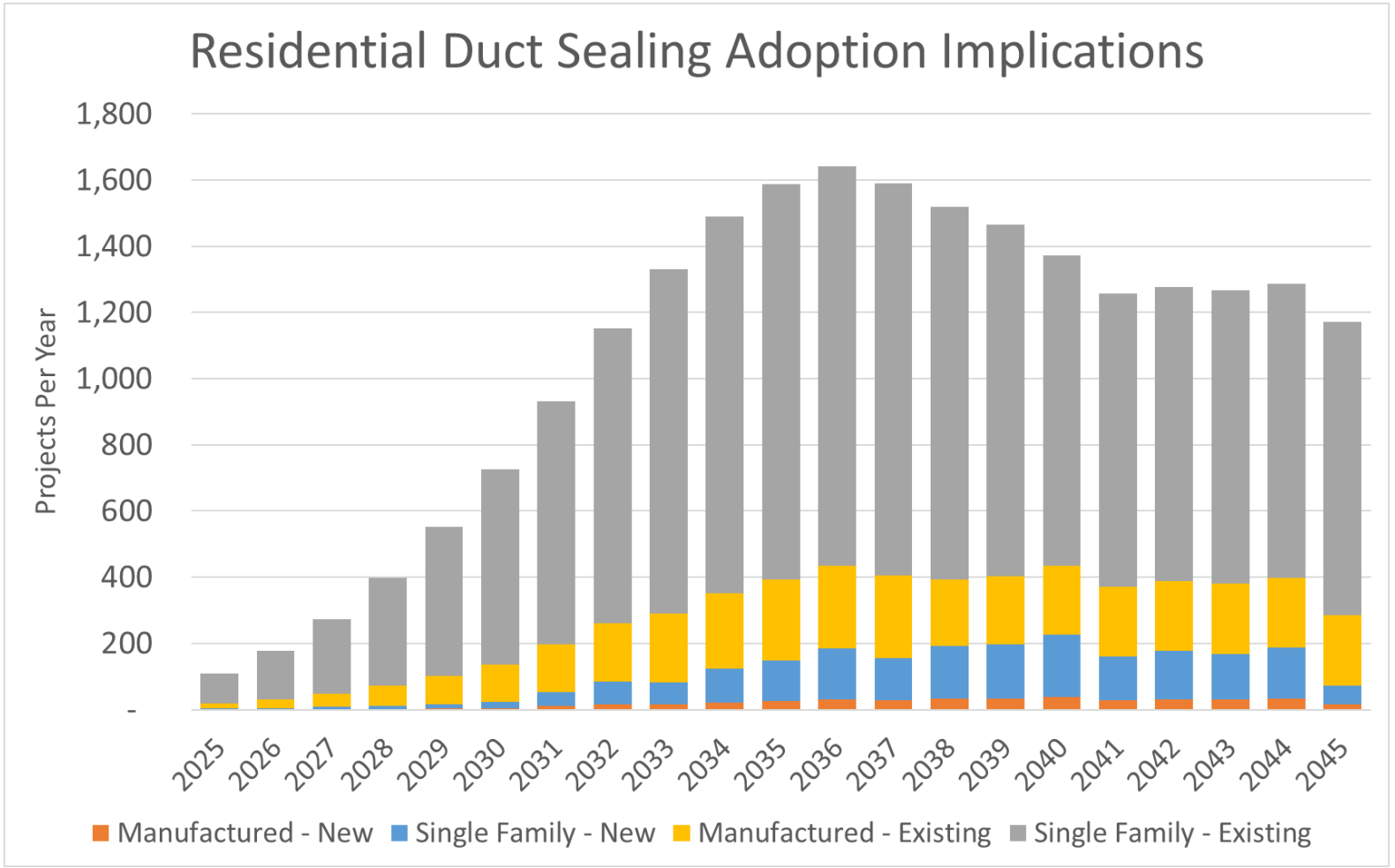


Commercial Conservation Measures	
Measure Category	22-Year Achievable %
Heating, Ventilation and AC	26%
ARC	
Chiller	
Ductless Heat Pump	
Strategic Energy Management	
Fans	
Heat Pumps	
PTHP	
Pumps	
Smart Thermostats	
Unitary AC	
Windows	
Lighting	47%

Adoption Considerations – Residential Duct Sealing

Duct Sealing

- 1 project completed in 2024
- Potential is mostly in single-family buildings (83%)
- Roughly 1/3rd of all single-family homes in Eugene would need duct sealing in the next 22 years



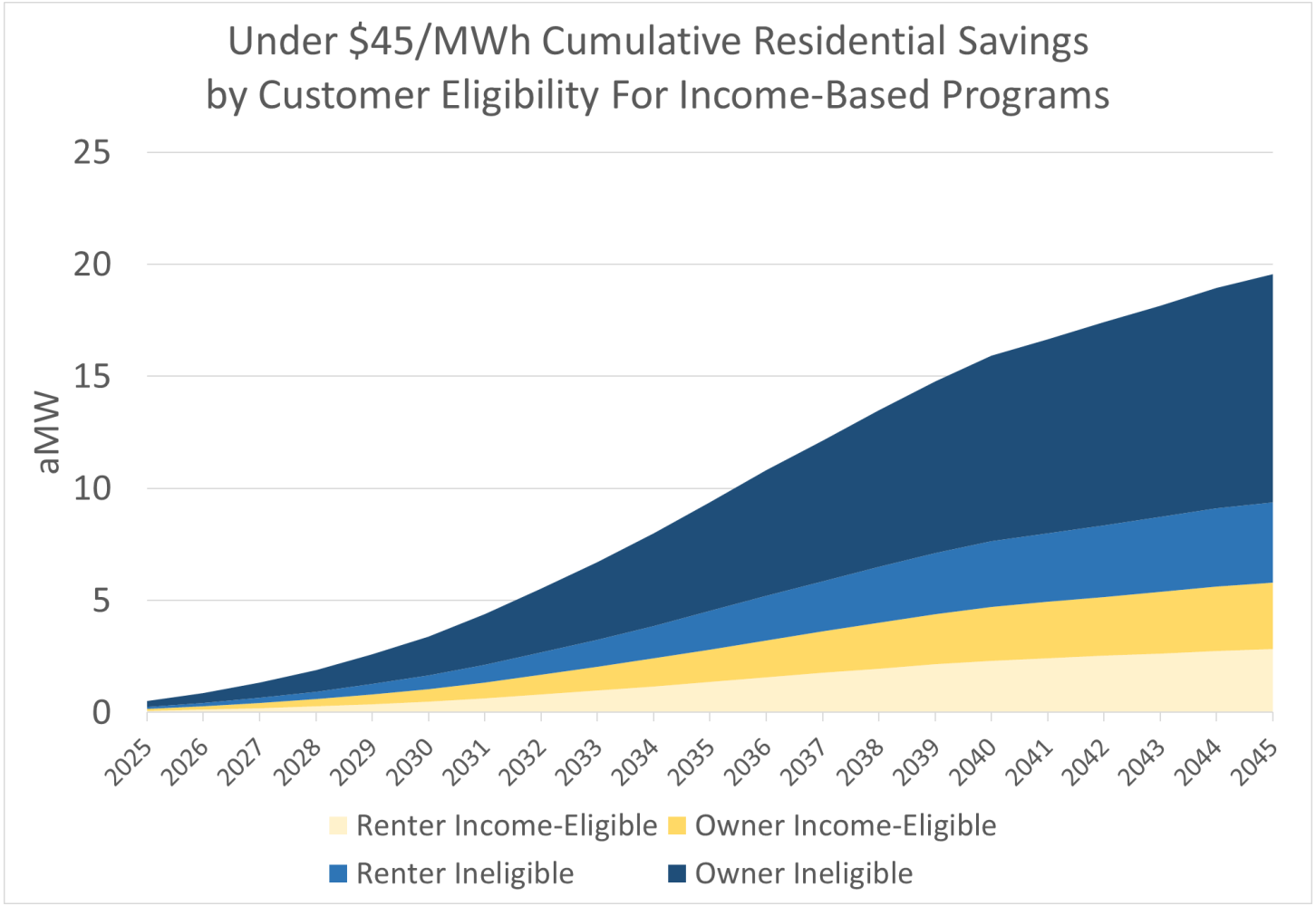
Programmatic Changes Will be Key to Pursue Under $45 Bin

Programs in Under $45/MWh Bin:

- 70% of savings would come from customers not eligible for EWEB's income-based programs
- Multifamily has lower energy consumption and reduced opportunities for energy savings and measures

Programs Today:

- DHP, insulation and windows mostly live in the $120/MWh+ bin
- Increased expertise would be needed in the commercial and industrial sectors

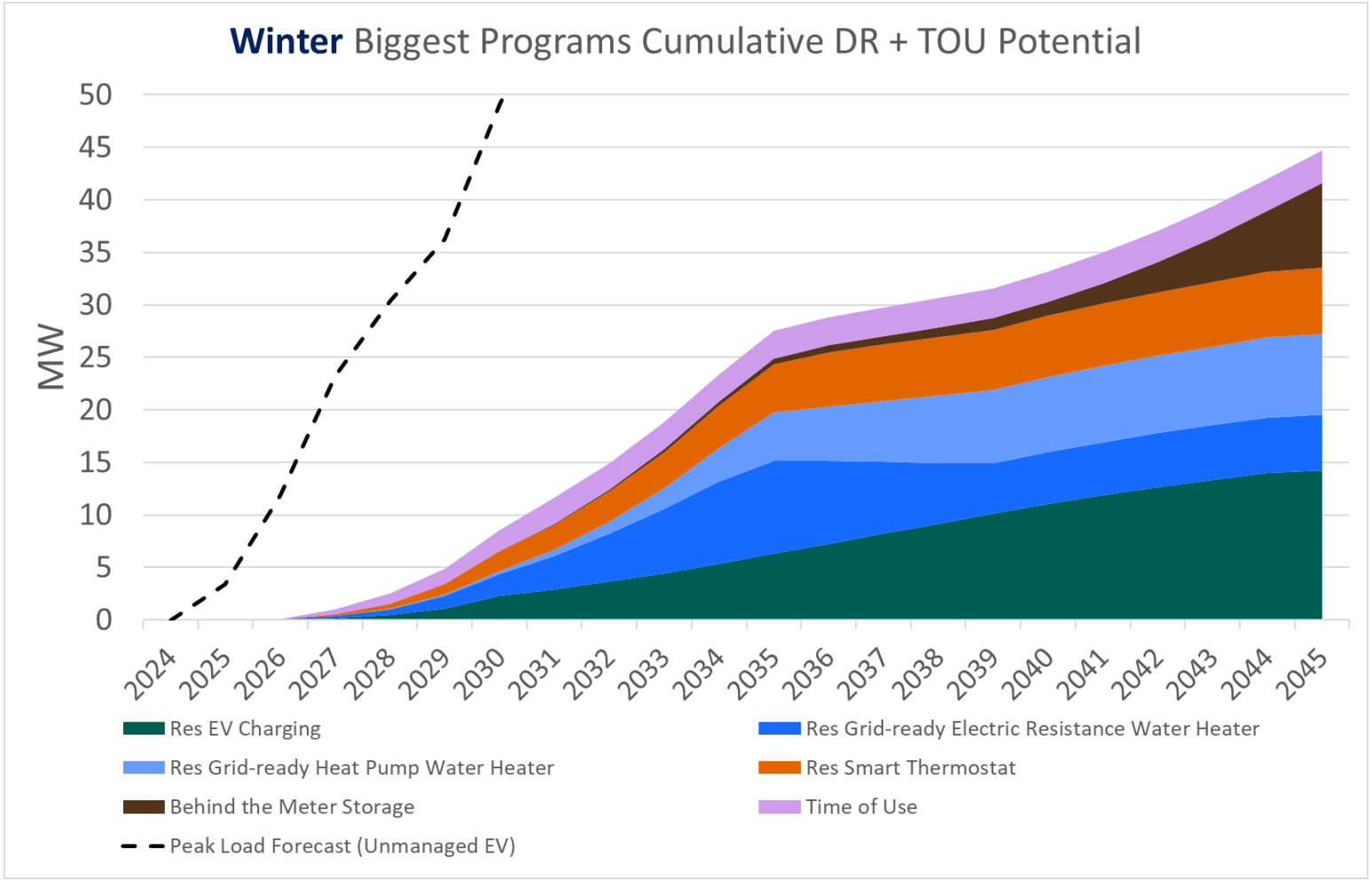


Demand Response + Time of Use Potential

Study separated:
Direct Load Control programs or behavioral change from Opt-in TOU

Biggest DR Program Potential:
Residential EV
Residential Water Heating
Residential Smart Thermostat
BTM Storage (not till 2040)
Other Time of Use Shifting

Implementation flexibility:
Price Signal TOU vs. Direct Control can both drive peak savings



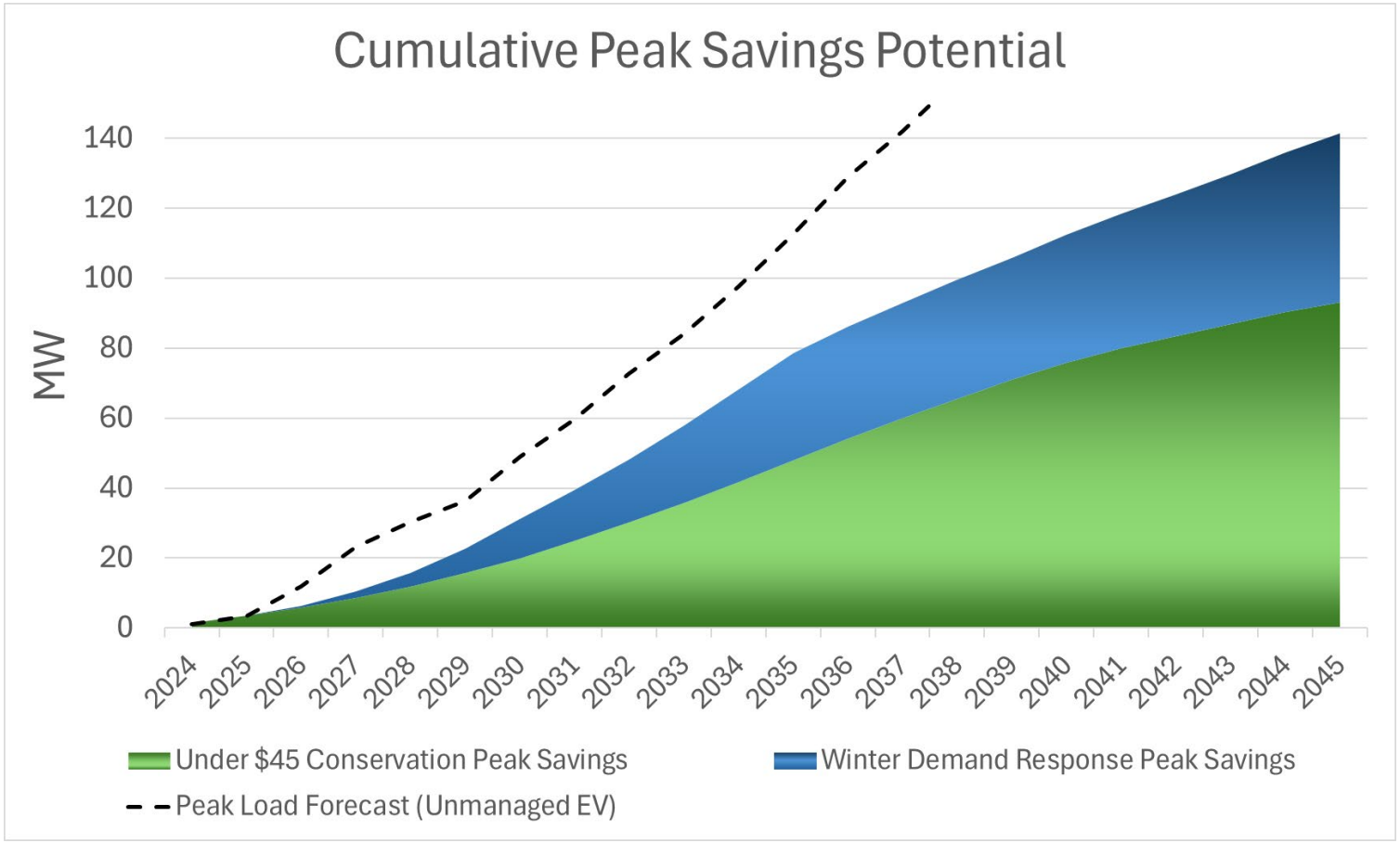
Promising Demand-Side Potential To Offset Load Growth

DR Programs less than utility scale batteries

Under $45 Conservation + DR/TOU offsets most peak load growth

Strategic shift towards cost-effectiveness

- Cost-effective potential is promising
- Implementation and shift in focus to costs-effectiveness evaluation challenging



Discussion

Adjourn