2026 Demand Side Management Potential Assessment

2026 IRP – External Stakeholder Meeting #4

July 17, 2025

Seattle City Light

WE POWER SEATTLE

Today's Agenda

- SCL Presenters
- DSMPA Background & Context
- Modeling the DSMPA
- DSMPA Targets
- Next Steps

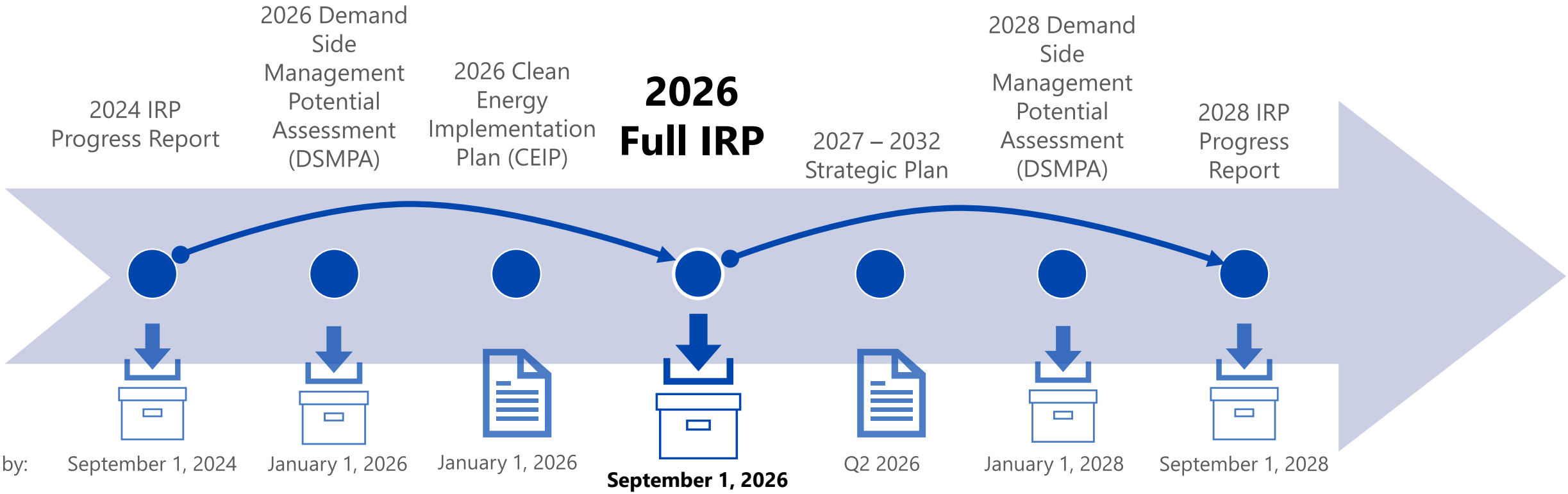
Today's SCL Sponsors and Contributors – IRP

Name	Title, Group	Role
Siobhan Doherty	Power Supply Officer	IRP Sponsor
Katie Ewing	Manager, Resource Planning & Analysis	IRP Contributor
Mike Hamilton	Strategic Advisor/Data Scientist, Finance	IRP/DSMPA Contributor
Ruizhe Wang	Sr. Economist/Data Scientist, Finance	IRP/DSMPA Contributor
Verene Martin	Data Scientist, Resource Planning & Analysis	IRP/DSMPA Contributor
Rebecca Klein	Data Scientist, Resource Planning & Analysis	IRP Contributor
Alan Bach	Sr. Power Analyst, Resource Planning & Analysis	IRP Contributor
Natalie Randall	Applied Scientist, Resource Planning & Analysis	IRP Contributor
Ana Mileva	Principal, Sylvan Energy Analytics	IRP Contributor
Elaine Hart	Principal, Sylvan Energy Analytics	IRP Contributor

Today's SCL Sponsors and Contributors – DSMPA

DSMPA Team		
Name	**Title, Group**	**Role**
Margaret Frey	Strategic Advisor, Power Contracts and Regional Affairs	DSMPA Contributor
Aquila Velonis	Principal, Cadmus	DSMPA/IRP Contributor
Jesse Emge	Sr. Associate, Cadmus	DSMPA/IRP Contributor
Sophia Spencer	Principal, Nauvoo Solutions	DSMPA Contributor
Jennifer Finnigan	Manager, CES Strategy, Planning and Evaluation	DSMPA Contributor
Joseph Fernandi	Director, Customer Energy Solutions (CES)	DSMPA Sponsor
Craig Smith	Chief Customer Officer	DSMPA Sponsor

2026 Integrated Resource Plan (IRP) Timeline Context



Targeted City Council Consideration:	**Aug 2025**	**Sep 2025**	**Jan 2026**		**Jul 2027**	**Jul 2027**

Background

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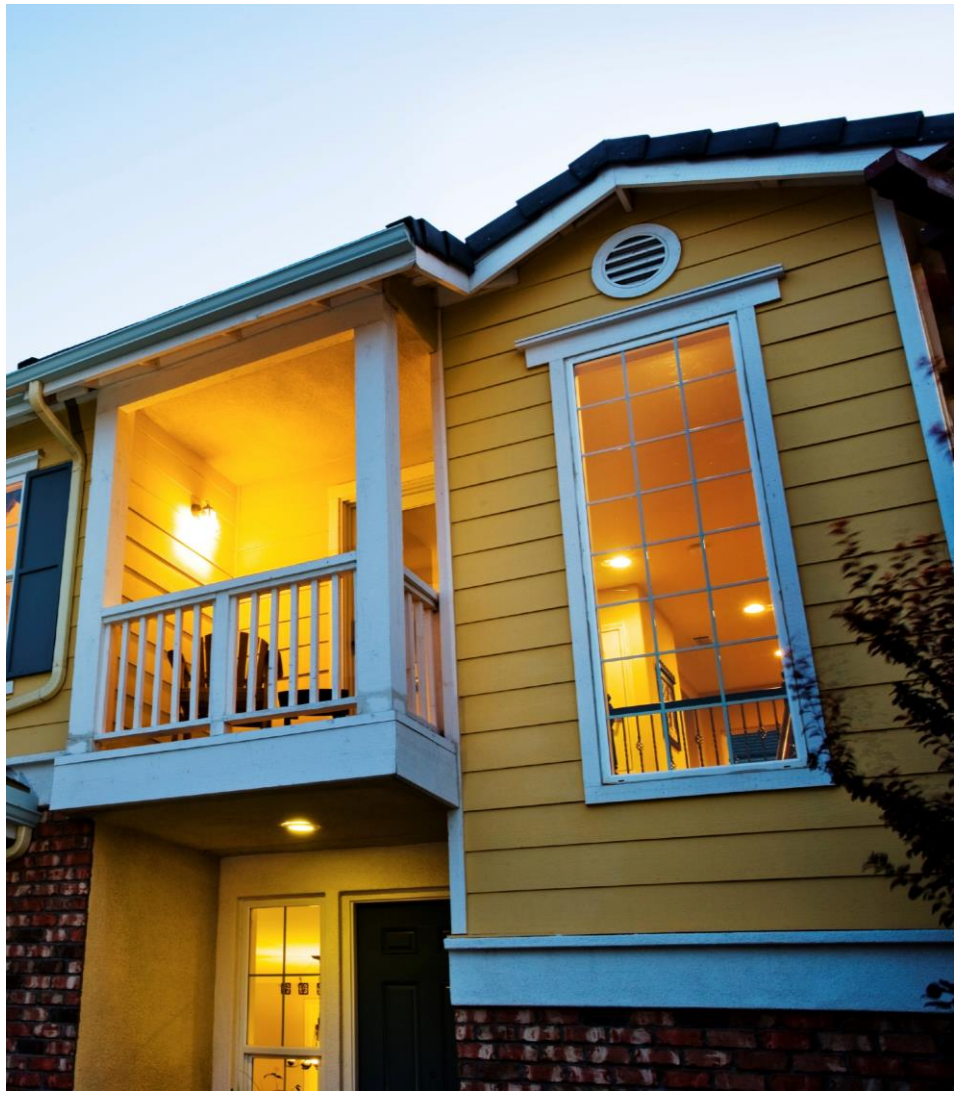
What is Energy Conservation?

Energy conservation is a reduction of the total amount of energy consumed over a year

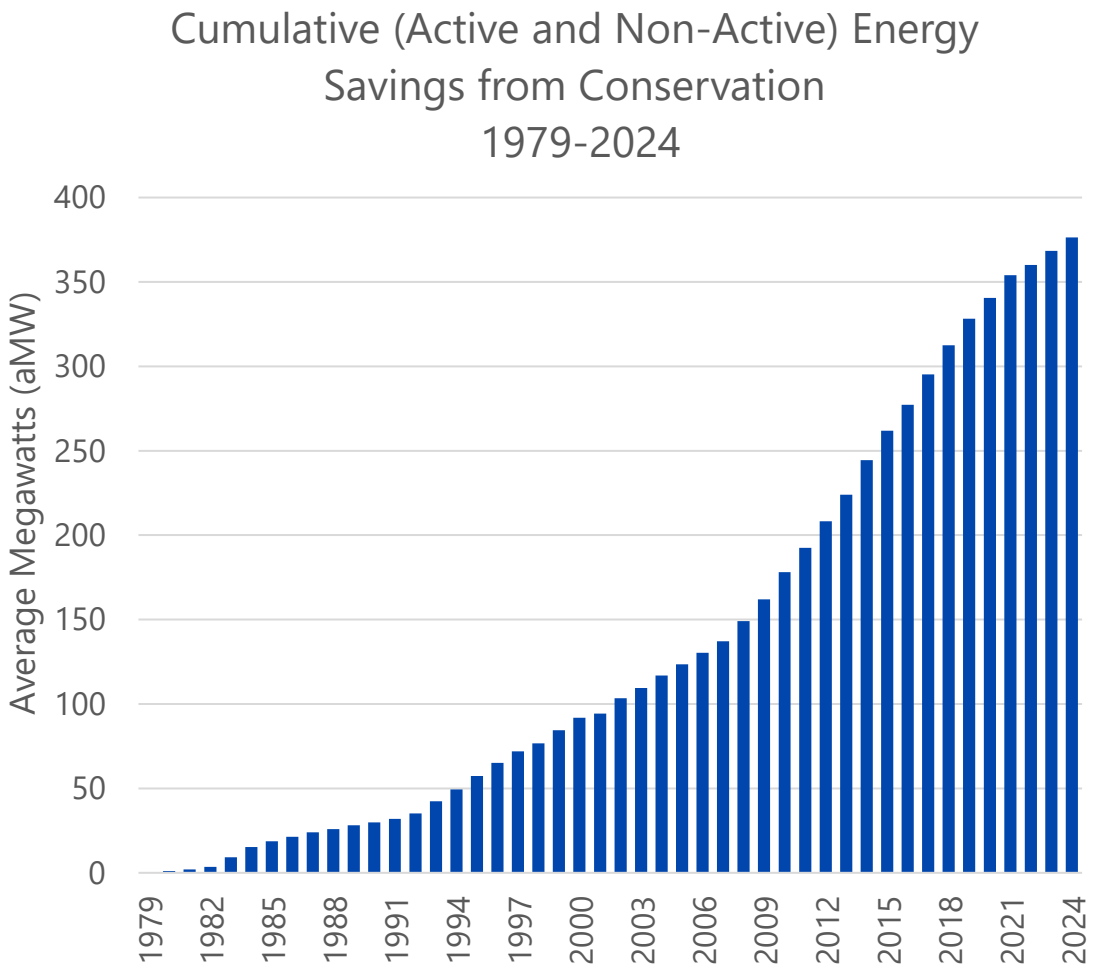
Also known as energy efficiency



Energy Conservation at City Light

- A **top resource choice**
  - Lower cost
  - Lower risk
  - Low environmental impact
  - Avoids transmission constraints

Our Conservation Legacy

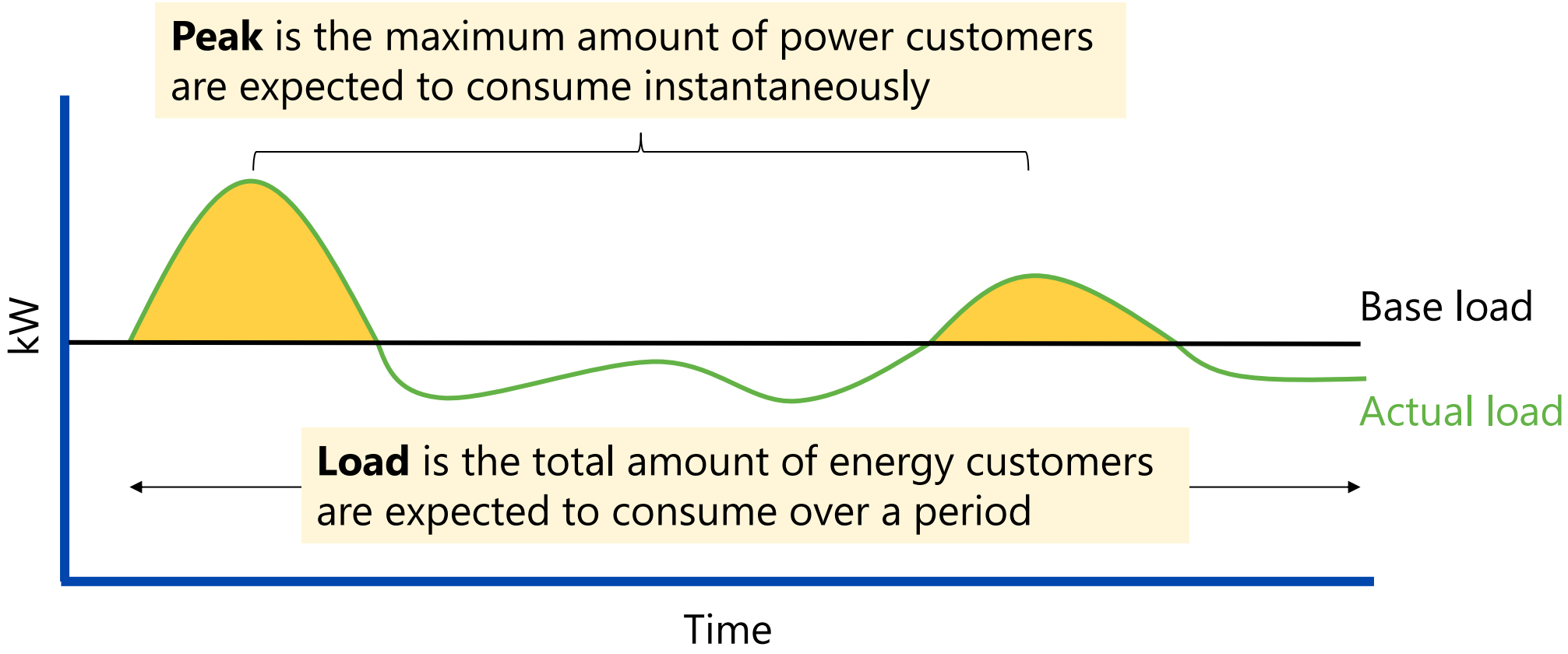


Energy Conservation Targets – State Law

- Required by Washington Energy Independence Act (I-937) and the Clean Energy Transformation Act (CETA)
- Utilities must
  - Pursue "all available conservation that is cost-effective, reliable, and feasible"
  - Set 2-year conservation target, 10-year conservation target, every two years
  - Collect enough conservation to meet the 2-year target

What is Demand Response?

Demand response is a broad term for strategies used to shift when electricity is consumed, reduce consumption during peak times, or reduce total consumption.



Opportunities for Demand Response

- **Customers**: residential, commercial, and industrial
- **Technologies**: thermostats, water heaters, electric vehicles, etc.
- **Mechanisms**: incentives, rates, contracts, etc.

Demand Response at City Light

Where we are (2024)

0.3 MW from a residential
smart thermostat pilot

Demand Response Targets – State Law

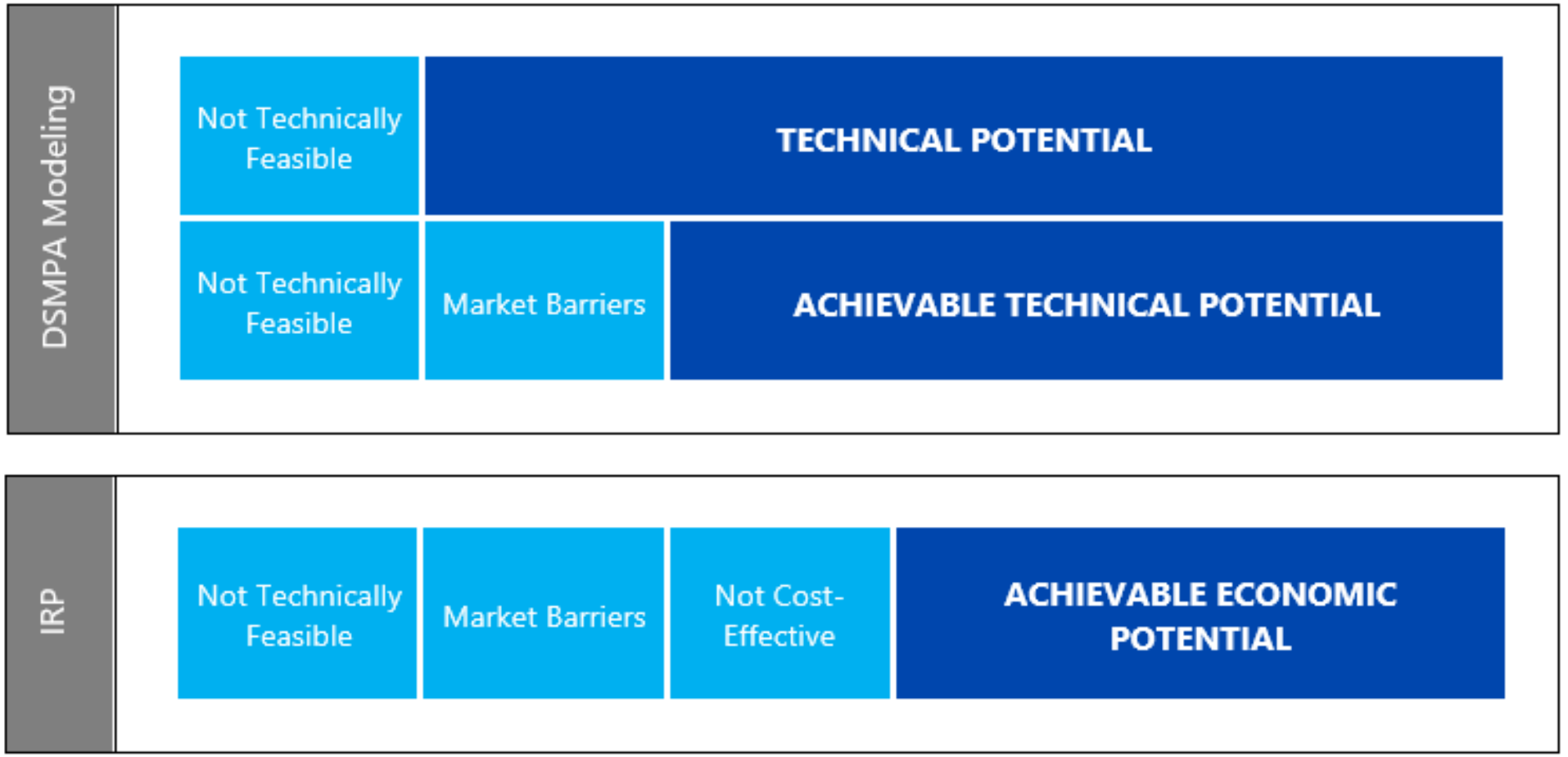
- Required by the Clean Energy Transformation Act (CETA)
- Utilities must
  - Develop and submit a Clean Energy Implementation Plan (CEIP) **every four years** to the Department of Commerce
  - Propose specific targets for demand response
  - Make the CEIP public

How Do We Set Targets for Conservation and Demand Response?

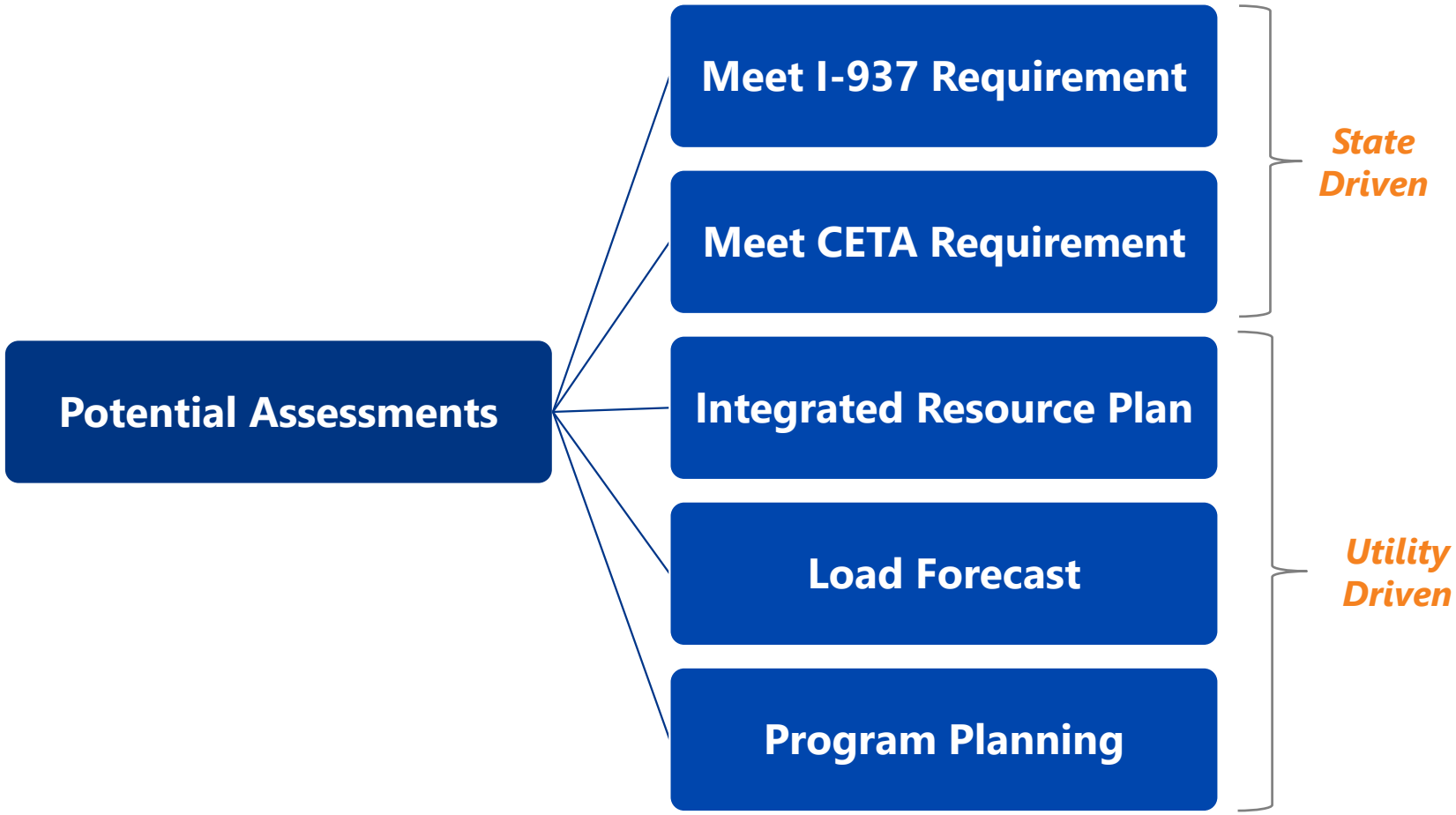
Demand Side Management Potential Assessment (DSMPA)

- Identifies the amount, timing, and cost of conservation and demand response
- Specific to our service territory
- Weighs against supply-side resources via the Integrated Resource Plan (IRP)
- Required by Washington Energy Independence Act (I-937) and Clean Energy Transformation Act (CETA)
- Methodology is set by state law

DSMPA Methodology



Why We Do Potential Assessments



CETA = Clean Energy Transformation Act

DSMPA Timeline

2026 IRP/DSMPA Model

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2026 Staggered Approach

1

BPA Product Choice

- Production cost model
- Decision independent of candidate resources

2

DSMPA

- Capacity expansion model
- BPA product choice, Cadmus demand side resources, and candidate supply side resources

3

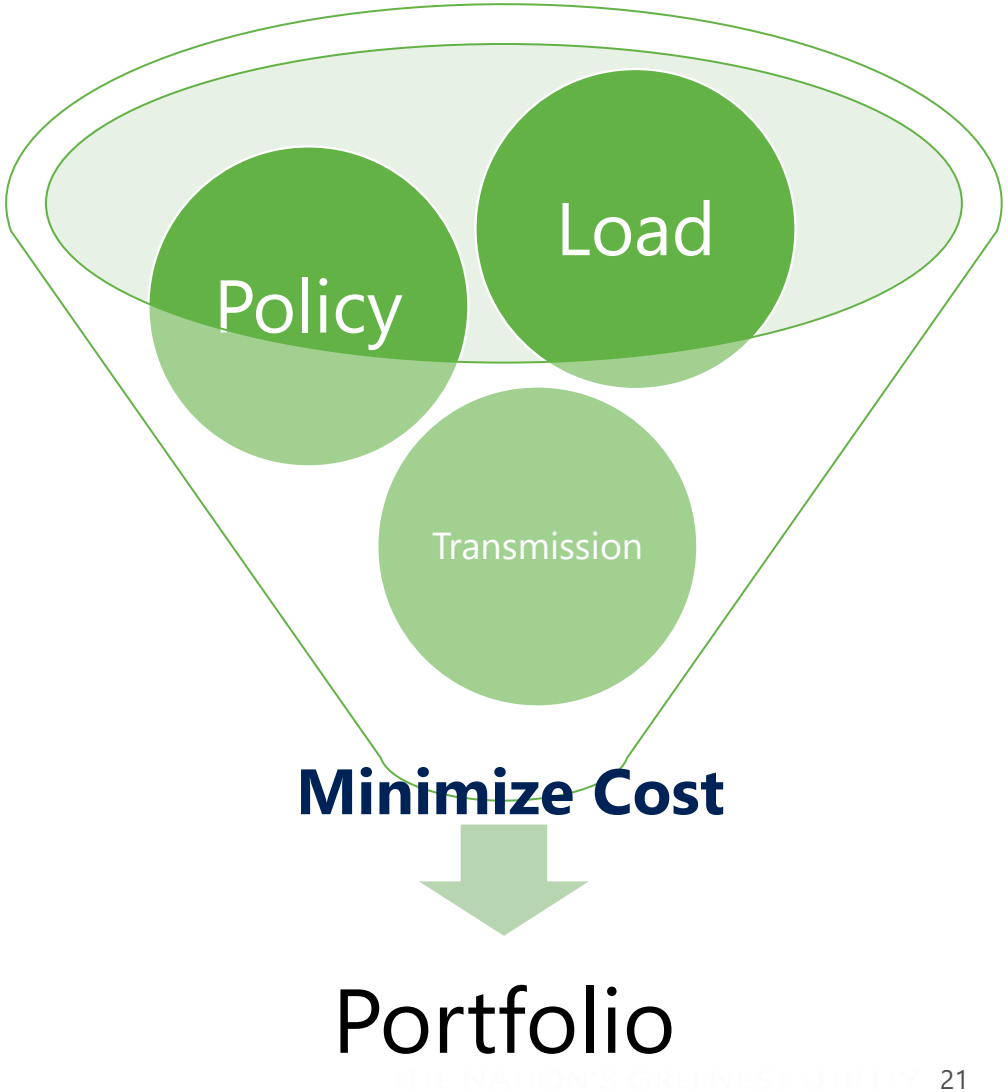
IRP

- Capacity expansion & production cost models
- BPA product choice, DSMPA demand side resources, and candidate existing and emerging supply side resources

How the Capacity Expansion Model Chooses a Portfolio

- **Inputs:** existing portfolio, candidate resources, price forecasts, etc.
- **Constraints:** load, climate policies, transmission, hydro/fish license
- **Objective:** minimize cost
- **Output:** portfolio

- **Update:** Increased flexibility in measure selection



Resource Adequacy and Representative Days

32 Representative Days

24 Typical Days

8 RA Constrained Days

1 Weekday per Month

1 Sunday/Holiday per Month

1 Day per Month with Greatest Need

NO UNSERVED ENERGY

Conservation Targets

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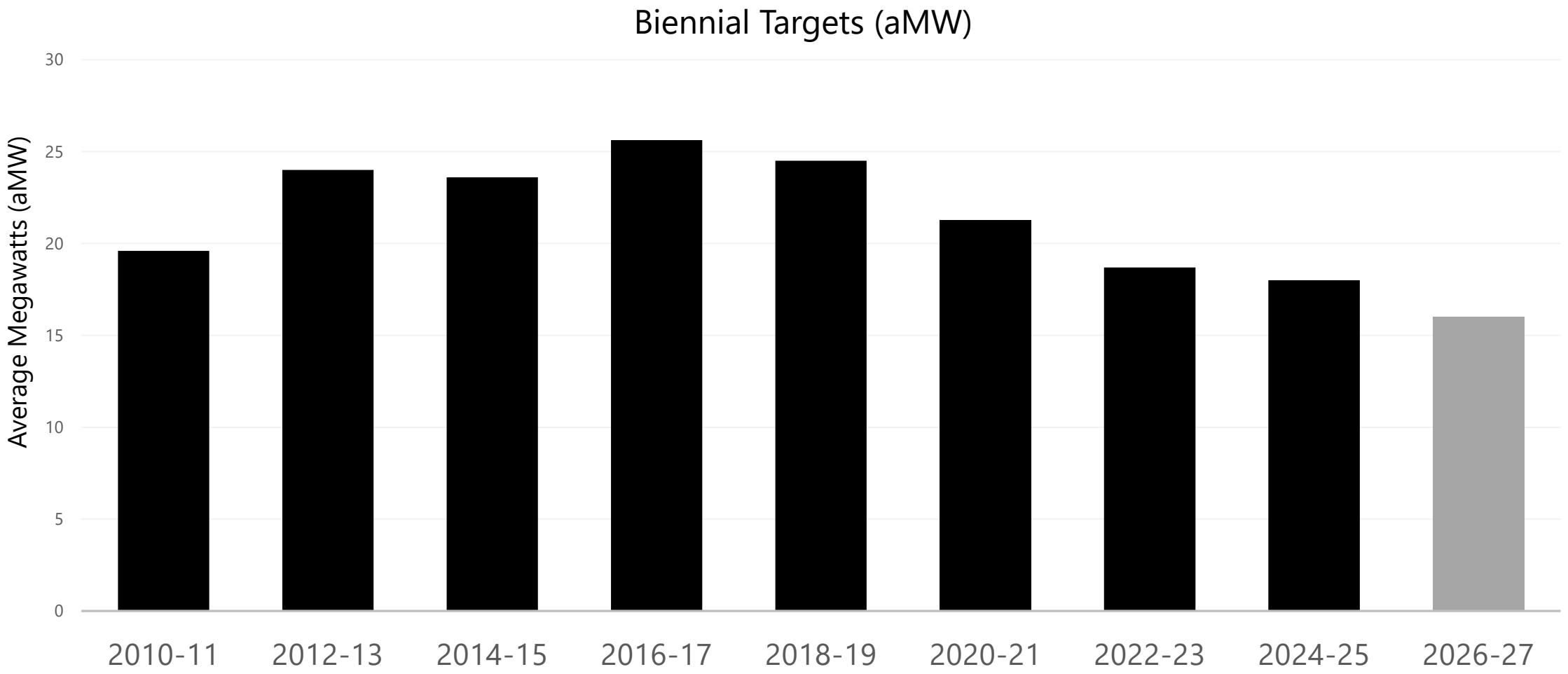
Energy Conservation Targets Change Over Time

I-937: Utilities must pursue "all available conservation that is cost-effective, reliable, and feasible"

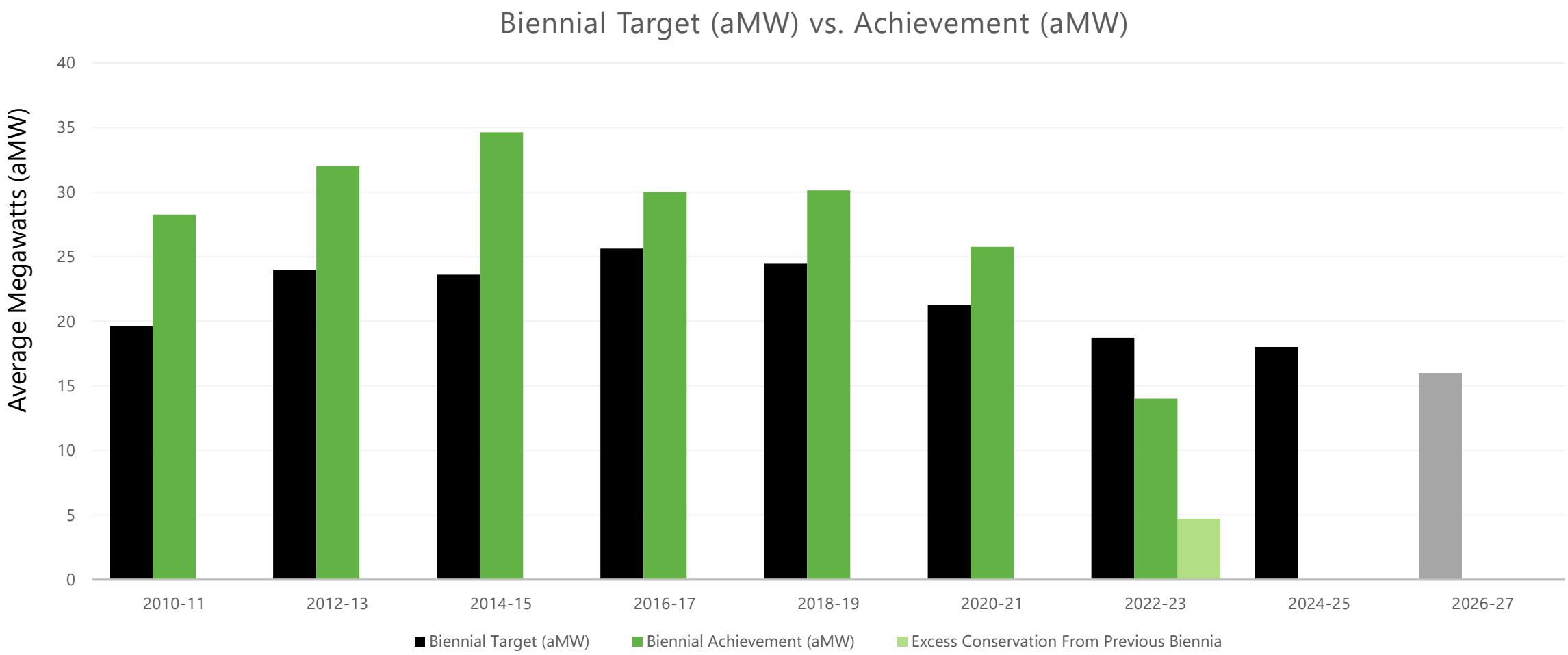
Drivers of change

- Market transformation
- Local market conditions
- Government policies
- Ramp rates

Conservation Targets Over Time



Conservation Targets and Achievement Over Time



2026 Conservation Scenario Comparisons

	2-Year aMW (2026-2027)	10-Year aMW (2026-2035)	20% of 10-Year
2024 DSMPA	**18**	79	
2026 DSMPA	21	78	**16**

Conservation Targets

Sector	10-Year aMW (2026-2035)	2-Year aMW (2026-2027)
Commercial	62	12
Industrial	6	1
Residential	9	2
Total	**78**	**16**

Top Conservation Measures

Residential

- ENERGY STAR washers and dryers
- Wall insulation
- Heat pumps
- Heat pump water heaters

Commercial

- Triple glazed windows
- Building automation systems
- HVAC retro-commissioning
- Air Source Heat Pumps

Demand Response Targets

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2026-2029 Demand Response Target – 12 MW

- To explore: Critical Peak Pricing
- Under development:
  - Industrial Curtailment
  - Time of Use rates – opt in
  - Time of Use rates – opt out
  - Bring Your Own Device (TempWise) 2.0

Next Steps

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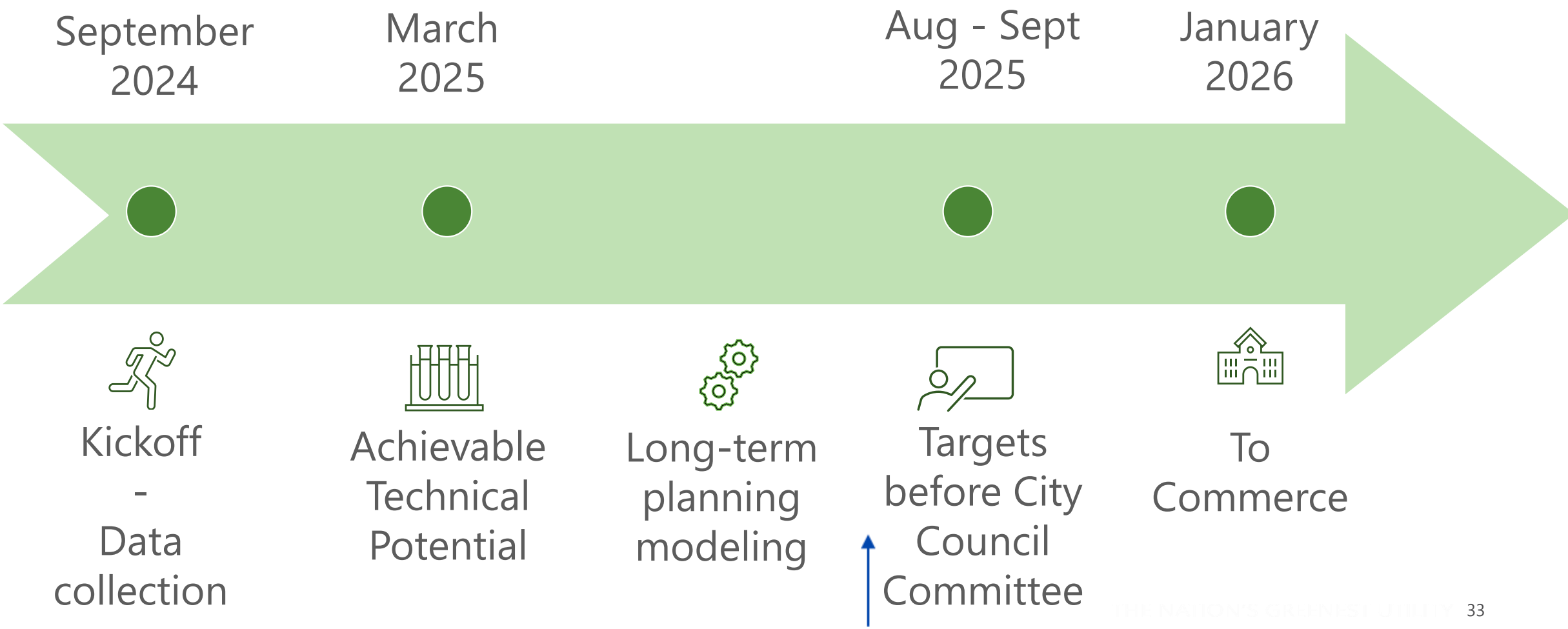
DSMPA Timeline



Next Meeting

- September proposed agenda
  - IRP Final Results
- Meetings will resume with the 2028 IRP Progress Report

THANK YOU

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Extra slides

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