Equity in Contracting & Local Workforce Development

Tacoma Public Utilities

Study Session
September 11th, 2019

AGENDA

Equity in Contracting & Local Workforce Development

- Desired Outcomes and Objectives
- Current Policies
- Historical Context
- Recommendations to Meet Objectives
- Next Steps

DESIRED OUTCOMES

- City of Tacoma Public Work Projects Should:
  - Provide workforce development and employment opportunities to residents of Tacoma and economically distressed areas within the Tacoma Public Utilities Service Area
  - Promote equitable use of Small/ Minority/ Women's Business Enterprise (M/WBE) contractors

OBJECTIVES

1. Build local business contracting capacity
2. Implement race/gender-based contracting goals
3. Enforce mandatory utilization of equity goals
4. Increase local hiring and training
5. Enter into additional workforce development agreements

CURRENT POLICIES

- Small Business Enterprise (SBE) Policy *TMC 1.06*
  - Updated 2014
- Tacoma Training and Employment Program (TTEP) Policy
  - TMC 1.80 Repealed 2016
- Local Employment and Apprenticeship Training Program (LEAP) Policy *TMC 1.90*
  - Updated 2018

HISTORICAL CONTEXT

- I-200 *(1998)*
- Griffin & Strong Disparity Study (GSDS) *(2018)*
- Community Workforce Agreement (CWA) Task Force *(2018 – 2019)*
- I-1000 *(2019)*

RECOMMENDATIONS

Phased Approach:

- Phase I: Implement Foundational Recommendations
  - Present – December 2019
- Phase II: Implement Major Policy Advancements
  - January 2020 – December 2020
- Phase III: Evaluate, Learn, Adjust and Revise
  - January 2021 – December 2023

PHASE I (Present – December 2019)

- **Implement Foundational Recommendations**
  - Improve Compliance Tracking
    - Enhance ability to monitor contractor performance
    - Align tracking with other local agencies
  - Small Business Enterprise (SBE) certification migration to State list
    - City of Tacoma SBE List: 210 firms
    - State SBE & MWBE Certified Firm List: 2,911 firms with 3,773 certifications
    - With City of Tacoma geographic overlay (Tacoma Public Utility Service Area) - 1,711 firms with 2,218 certifications

1

PHASE I (Present – December 2019)

- **Consider Code & Policy Changes –**
  - Race & Gender Subcontracting Goals
    - Projects under $25k to have SBE requirement
    - Projects over $25k to have MWBE and/or SBE requirement
  - Condition of Award for Small Business Enterprise (SBE) & MWBE Participation
    - **All** contracts to go through goal audit process
    - "Hard check" inserted into contracting process to hold internal staff accountable on front-end (1 FTE as outlined in Disparity Study Recommendation 1)
    - Proactively monitor and investigate discrimination and construction contract MWBE/SBE utilization on back-end (1 FTE as outlined in Disparity Study Recommendation 6)

PHASE I (Present – December 2019)

- **Consider Code & Policy Changes –**
  - Additional Apprenticeship and Workforce Agreements
    - Priority apprenticeship and hiring programs targeted to Economically Distressed Areas of City and TPU Service Area
    - Potential Project Labor Agreement (PLA)

4 5

NEXT STEPS

- Outreach – September – October.
- Mid-Mod budget increase request - November
- 1st reading - October 29th
  - OMWBE List
  - MWBE Requirements
  - Additional Workforce Agreements (tentative to negotiation)

NEXT STEPS (PHASE I)

Month (2019)	Study Session / Council Action
August/September	• Consider additional training efforts for public contracting business development • Consider authorization of SBE certification migration to State list • Consider race and gender subcontracting goals • Consider condition of Award for Small Business Enterprise (SBE) & MWBE Participation • Review Communication, Engagement, and Outreach Plan
October	• Consider Potential Options for Additional Apprenticeship and Workforce Agreements
December	• Consider Mid-Biennial Adjustments for newly adopted policies • Consider recommendations on MWBE and Local Hire participation on certain private sector projects that utilize City land, tax incentives, etc.

Equity in Contracting & Local Workforce Development

Tacoma Public Utilities

Study Session
September 11th, 2019

Economic Development Strategic Plan

Public Utility Board

September 11, 2019

TACOMA POWER TACOMA WATER TACOMA RAIL
TACOMA PUBLIC UTILITIES

Mission

Develop strategies and principles for engaging with staff and key stakeholders in identifying and maximizing economic development activities and opportunities.

What is Economic Development?

The main goal of economic development is improving the economic wellbeing of a community through efforts that entail job creation, job retention, tax base enhancements and quality of life.

…*there is no single strategy, policy, or program for achieving successful economic development*.

Communities differ in their geographic and political strengths and weaknesses…therefore, each will have a unique set of challenges for economic development.

For utilities the focus is in creating more retail demand.

Utility Economic Development

Public utilities play a significant role in promoting economic development activity to help grow their communities by **strategically working with local and regional economic development partners**.

Utility engagement addresses some of the following issues:

- Surplus capacities for Power, Water and Rail
- Declining revenues
- Reduces pressure on rates
- Provides opportunities for workforce development

For TPU, economic development is business development.

Economic Development Partners

- City of Tacoma, Community & Economic Development
- Pierce County Economic Development
- Economic Development Board
- Tacoma + Pierce County Chamber of Commerce
- Franchise Cities Economic Development Departments
- Tribal Economic Development Entities
- Washington Department of Commerce
- Greater Seattle Partners
- Port of Tacoma (NWSA)
- South Sound Alliance
- Workforce Central
- Puget Sound Regional Council

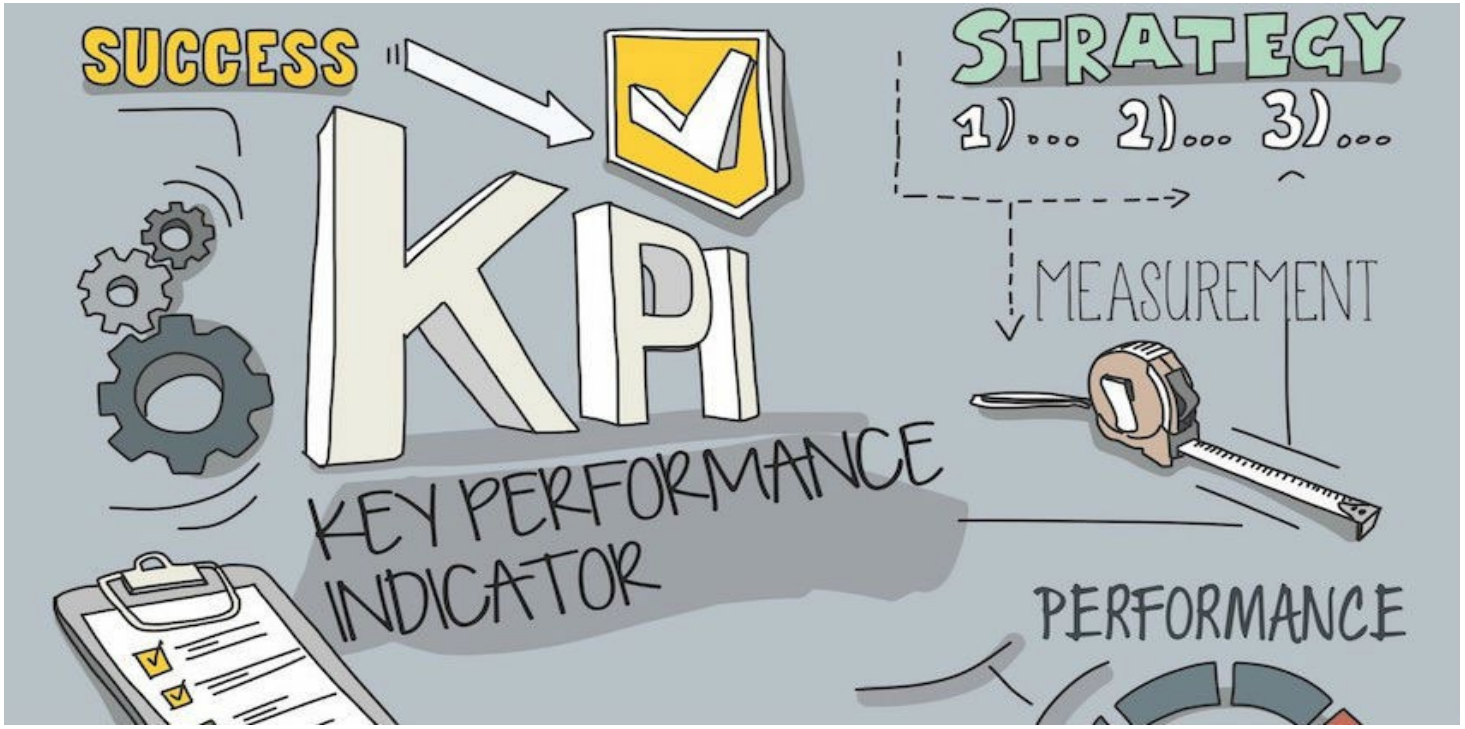
Utility-Community Alignment

"In an effort to better align with state, regional, and local economic development partners, utilities are beginning to understand that electric (rail and water) consumption will follow jobs and capital investment.

Therefore, it is critical that our performance is measured with these metrics, in addition to consumption.

At the end of the day, it is about being a valued community partner; selling electricity and water will take care of itself."

https://www.areadevelopment.com/business-climate/December-2017/utiliies-bring-expertise-to-corporate-location-projects.shtml



*Performance measurement is one area where the economic development profession is weak, undoubtedly due to the difficulty of establishing direct "**cause and effect**" linkages between the work of an economic developer and the jobs created by private sector employers.*

Performance Metrics

"Outcome measurement does not prove a cause-effect relationship.

And when it comes to economic development the actions of one individual or one organization is not likely to be entirely responsible for results within a community.

The board and staff should be comfortable with the idea that success is shared, but agree upon how they are going to measure that success."

Performance Measurement in Economic Development, 2011: Economic Development Association of Canada

METRICS MENU

01 Internal Segment

Measure activities that help an EDO conduct the business of the organization (irrespective of specific programs and functions).

02 ED Programs Segment

Help EDOs measure performance on its economic development related functions. As such, there are several lists of metrics based on specific ED programs.

a. Business Attraction and Marketing Metrics
b. Business Creation and Entrepreneurship Metrics
c. Business Retention and Expansion Metrics
d. Technology and Innovation Metrics
e. Real Estate: Industrial Use Metrics
f. Sustainable Development/Green Jobs Metrics

03 Relationship Management Segment

Measure efforts made by EDOs to build and strengthen relationships with internal and external stakeholders. The vast majority of EDOs currently dont use these metrics. Lists of metrics here are based on the type of stakeholder/relationship.

a. EDO Leadership Metrics
b. Relationships Established Metrics
c. Communications Metrics
d. Client Satisfaction Metrics

04 Community Segment

Measure the well-being of the community, which EDOs may have limited control over but many track to understand the community's needs. Metrics lists cover different aspects of community well-being.

a. Demographic Makeup Metrics
b. Business Related Factors Metrics
c. Real Estate: Housing Metrics
d. Quality of Life Metrics
e. Transportation and Public Transit Metrics
f. Trade and Tourism Metrics
g. Environment Metrics

Issues with Metrics

- Performance measures must also take into account external forces over which we have no control (economic cycles, exchange rates, trade policy and global supply chains) will have a far greater impact on the health of our local economy than we can ever hope to.

- Traditionally, the number of jobs created has been the number one economic development metric. Given the increase in automation, robotics and AI – this metric may no longer be an appropriate indicator of economic activity – need to consider quality of jobs, jobs retained, and other investment related metrics.

- Our service areas are not consistent within one clearly defined boundary. How do we track indicators across a number of different jurisdictions? Up to 47% of total service territory.

Priorities

Cohesiveness

Focus on internal meshing – aligning the organization's view of operations through an economic development lens as one cohesive entity, not three distinct business units.

Partnership

Focus on meshing with external economic development and community partners to ensure TPU is seen as a valued community partner and integral to the success of the region. TPU is part of the economic development process from the start.

Initiatives

The plans initiatives are intended to support the

- Utilities' mission across its business units, and
- Efforts of our partners to create a vibrant and resilient economic base throughout the region.

At the same time, it is critical that our efforts are effected equitably across demographic groups and geographic units.

Talent attraction/retention and workforce development

QUESTIONS?

1. Provide Consistent and Effective Engagement with ED Partners

- TPU role as common denominator amongst stakeholders
- Although constrained to their service territory, utilities tend to work the "regional approach" to economic development better than their state and local counterparts
- Ensuring TPU is a key component in the region's economic development ecosystem, by supporting and proactively participating in growing the economy and increasing quality of life.

2. Establish Multi-Disciplinary Work Groups to Address Needs of New and Expanding Customers

- The intent is to prioritize retail utility sales by improving the coordination and timeliness of our responses to requests for new or expanded services.
- This initiative brings together staff from different units within TPU to coordinate responses and identify process improvements.
- Dedicate resources to retain major customers, and identify resources to assist in potential expansions.

3. Compile Current Utility Capacity Data for Key Industrial Sites

- Creating a database of key industrial and commercial sites prioritized for development by our communities provides significant value for potential new customers and existing customers by identifying associated power, water and rail capacity.
- This database would increase our responsiveness to RFIs regarding a site's suitability for development based on the request from our economic development partners.
- Collaborate with its economic development partners to establish a site certification program.

4. Create Business Development Marketing Plan

- Identify business recruitment and site selector activities for participation from TPU economic development and/or account executives
- Work with state and local economic development partners to leverage TPU resources to maximize trade show and site selector engagement
- Continue enhancing the TPU economic development web page to promote resources, activities and success stories around the service territory

5. Leverage TPU Program Resources for Business Development

Work with energy and water conservation, rail, transportation electrification, Evergreen Options and other program personnel to identify ways by which TPU resources may be leveraged to promote business retention, expansion and recruitment.

6. Communicate Importance of Economic Development

- Create a communication strategy for internal and external audiences to raise awareness of the importance of economic development
- Increase internal alignment around TPU's role in economic development.
- Promote the region on TPU's website by providing information on a regional level that site selectors are looking for when analyzing potential locations for their clients.
  - Providing links that connect to our partner's websites and current regional information.

7. Identify and implement programs that position TPU to encourage job creation and economic growth

- Work with TPU business units to implement respective economic development initiatives and ensure that these efforts have a positive impact across all business units.

- When appropriate, present Water, Power and Rail opportunities together into a cohesive TPU economic development package that supports site location and expansion decisions.

8. Collaborate with workforce training institutions to create pathways from education and training to work

- Identify work training programs that can provide the skilled workers for TPU
- Provide training to job hire pathways including apprenticeships
- Work closely with the TPU Education Outreach Coordinator to engage on workforce and talent development initiatives
- Work with TPU customers to identify work skills and qualifications that they are having problems filling and provide this input to workforce development entities to inform their future programing efforts

Draft Policy Discussion

TACOMA PUBLIC UTILITIES

Advanced Meter Project
Draft Opt-Out Policy

Public Utility Board Study Session
September 11, 2019

Agenda

- ❑ Why an Opt-Out Policy?
- ❑ Proposed Policy
  - ❑ General Statements
  - ❑ Meters and Visual Indicators
  - ❑ Eligible Customers
  - ❑ Fees
- ❑ Feedback and Next steps

Why an Opt-Out Policy?

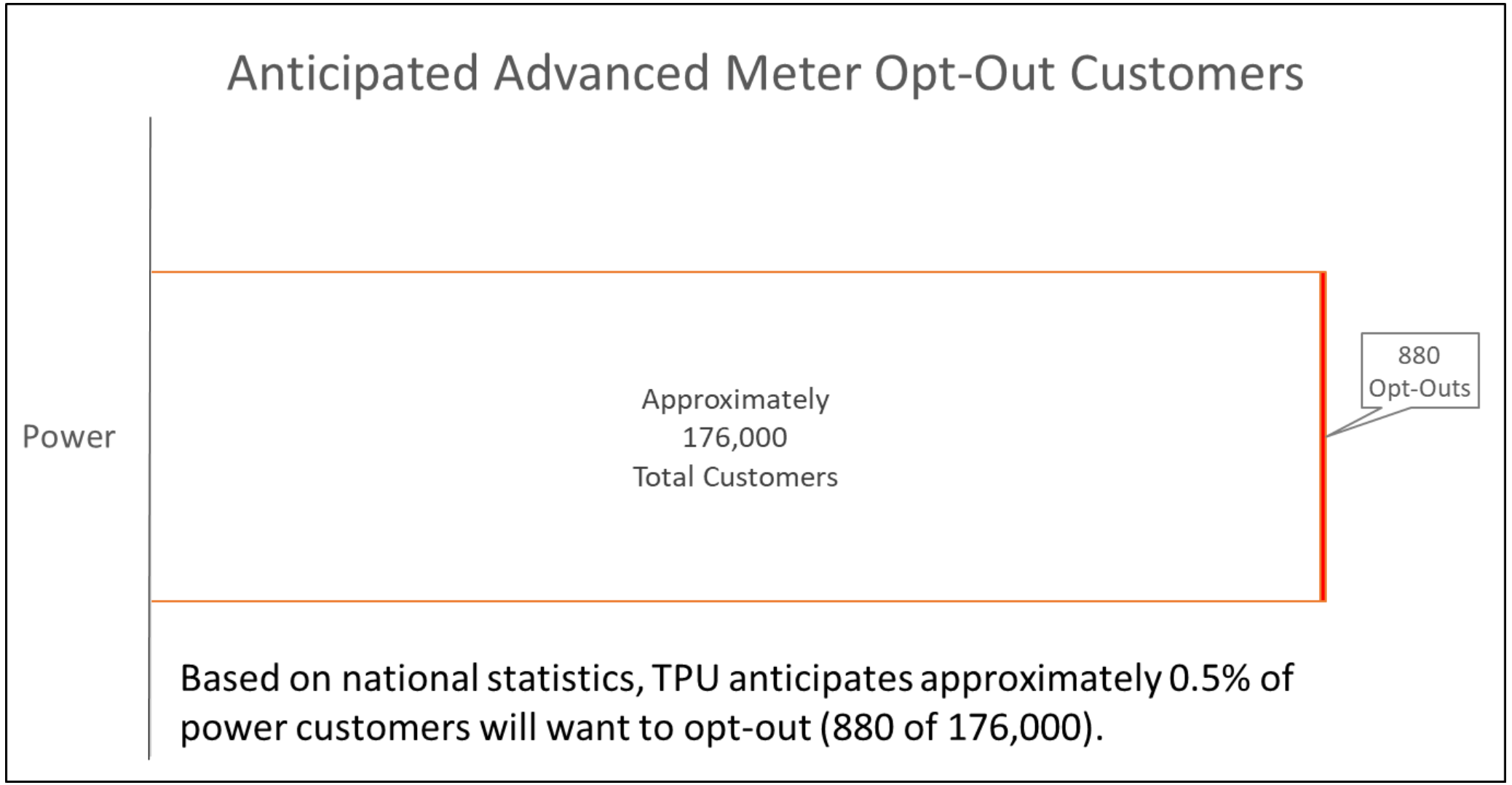
- **Purpose:**
  - Provide customers an alternative to a standard advanced meter installation
  - Anticipate and prepare for a small group of concerned customers' needs

- **Core Principles:**
  - Allow customers an equitable choice of service, while meeting utility equipment requirements
  - Identify and equitably allocate the costs of alternative meter options
  - Understand potential policy impacts on each customer class
  - Educate customers on the benefits of an advanced meter

Why an Opt-Out Policy?

TACOMA PUBLIC UTILITIES

Draft Policy Discussion



Why an Opt-Out Policy?

- **Utilities have seen better acceptance results with a policy that addresses rather than resists opposition.**

- **A key goal of our customer outreach is to:**
  - **Educate customers on the benefits of an advanced meter**
  - **Keep the refusal percentage low to realize maximum customer benefits**

Benefits of Advanced Metering

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

Customer Benefits (over time)	Standard Advanced Meter	Opt-Out Meter
Frequent usage data and expanded ways to save money	✓Yes	No
Easier move in, out, and reconnection	✓Yes	No
Faster outage and leak detection	✓Yes	No
Flexible payment options (including pre-pay and selectable bill date)	✓Yes	No
Budget billing	✓Yes	✓Yes
Monthly billing	✓Yes	✓Yes
Automated meter reading	✓Yes	No
Reduced environmental impact	✓Yes	No

General Policy Statements

Draft Policy Discussion

- **Advanced Metering Participation**
  - All customers will be upgraded to advanced metering during mass deployment.
  - New accounts will automatically participate in advanced metering.

Power &
Water Meters

General Policy Statements

Draft Policy Discussion

- **Customers will be given the opportunity to opt-out.**
  - **B*efore*** meter upgrade
  - **A*fter*** meter upgrade

- **Opt-Out Participation**
  - Customers must opt-out at the account level
  - Opt-out services will be converted to advanced metering upon move-out (or account closing).
    - An opt-out customer moving to a new location will be required to opt-out again (including related fees).
  - Customers must sign a form acknowledging fees, terms, and conditions.

Electric Opt-Out

Draft Policy Discussion

- **Electric Meter Options:**

Legacy Meter

Radio Off Meter

Opt-Out *BEFORE* Meter Upgrade

- Defer meter upgrade:
  - Customers can temporarily keep their existing legacy meter
  - Upgraded to radio off meter upon:
    - Legacy meter failure
    - Meter maintenance/obsolescence
    - Customer decision to upgrade
    - Meter will be wirelessly set up at the service location before turning the radio off
- Upgrade to radio off meter

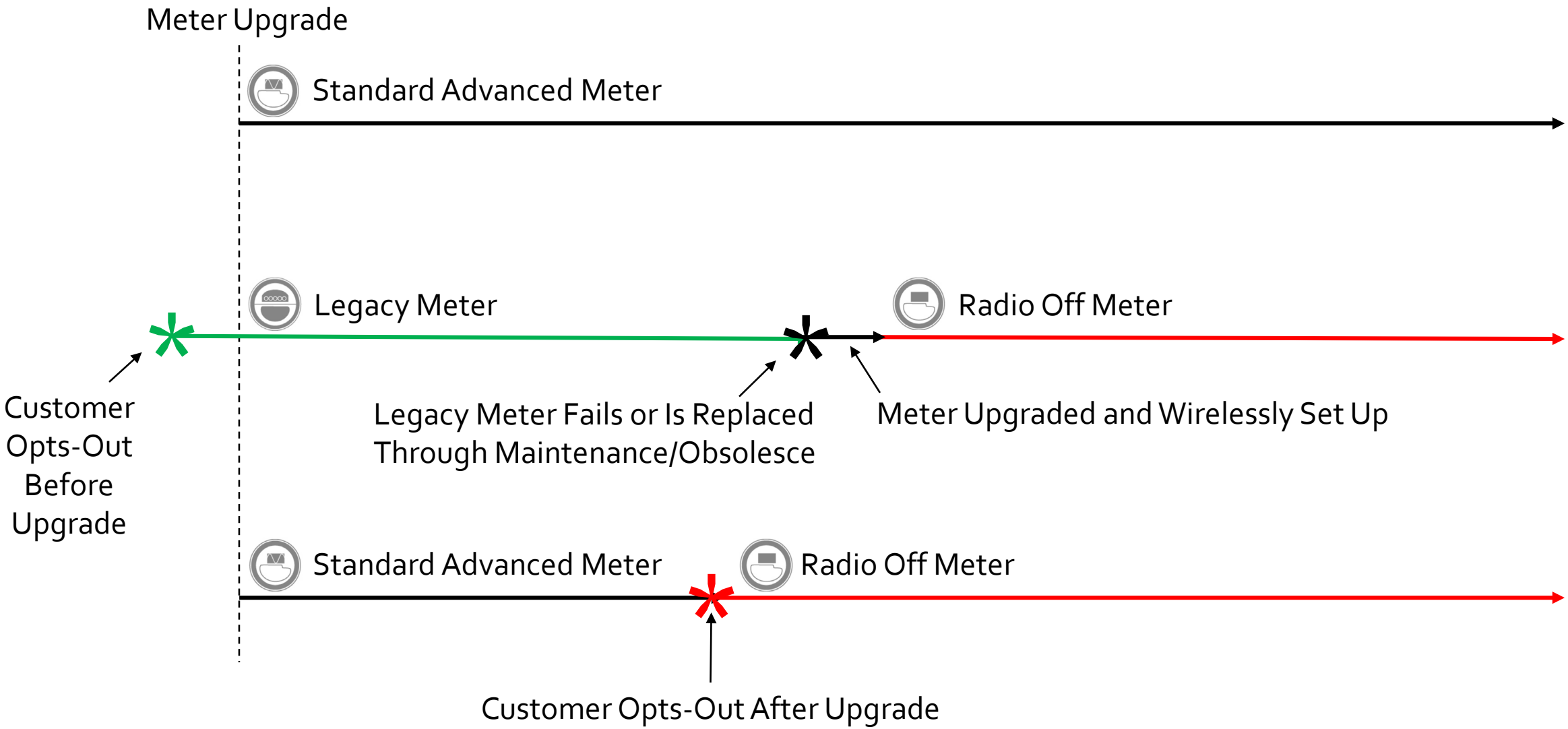
Opt-Out *AFTER* Meter Upgrade

- Radio off meter
  - Meter has already been wirelessly set up at the service location

Radio Off Meter

Electric Opt-Out Timeline

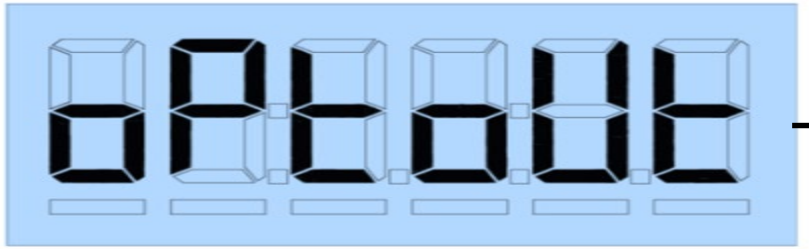
Draft Policy Discussion



Power Meters

Draft Policy Discussion

- **Radio Off Meter:**
  - **The meter's radio transmission communications will be turned off (opt-out mode).**
  - **Communications can be enabled and disabled remotely.**



("Opt-Out")

Policy Decision #1

- Should TPU provide a water meter opt-out option?
  - A) Staff Recommendation: No
    - Water meters are typically located in the public right of way, not on private property
    - Peer utilities have seen the most opposition to electric meters, not water/gas
    - Many large water utilities researched do not offer an opt-out option
    - Eliminates a one time fee for opting-out of water
    - Does not eliminate potential customer privacy concerns related to a water advanced meter
  - B) Alternative: Yes
    - Provides an option to opt-out of the water advanced meter radio
    - Provides a balanced policy approach by providing an opt-out option for both power and water
    - Costs for water opt-out would be allocated to individual customers through a one time fee
      - Current fee estimate: $40-50 per field visit
        - One field visit if customer opts-out ***before*** upgrade
        - Two field visits if customer opts-out ***after*** upgrade

Water Meters (if needed)

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

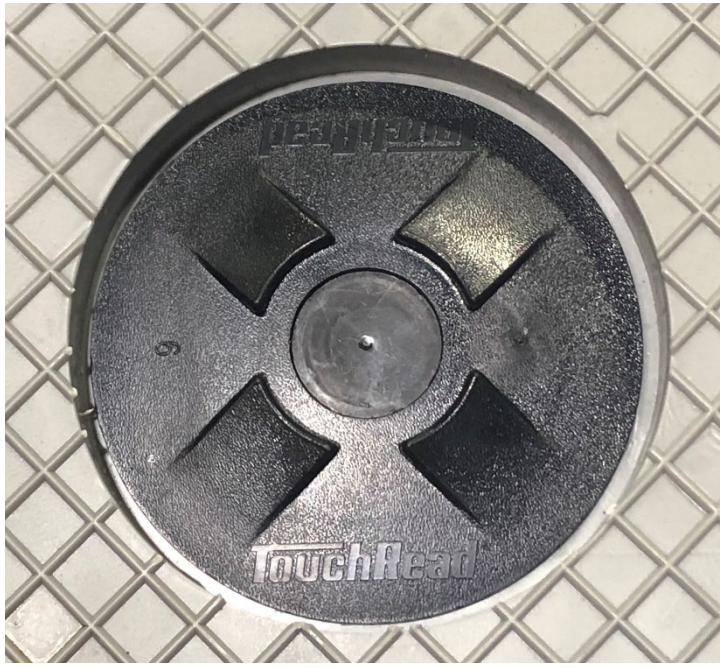
- **Radio Removed:**
  - **Radio communication module can be removed and changed to a touch read sensor.**

Standard Installation

Advanced Meter With Radio Communication Module

Opt-Out Option

Touch Read Sensor



Water Opt-Out (if needed)

- **Water Meter Options:**

Touch Read Sensor

Opt-Out *BEFORE* Meter Upgrade

- Defer communication module installation:
  - Water meter is upgraded
  - Radio communication module is not installed
  - Touch read sensor is utilized

Opt-Out *AFTER* Meter Upgrade

- Radio communication module is removed
  - Touch read sensor is utilized

Touch Read Sensor

Eligible Customers

Customer Type	Eligible to Opt-Out
Residential: Single Family or Multi-unit of 4 units or less	✓Yes*
Move-in, New Account, New Service	✓Yes*
Residential: Multi-unit > 4 units	No
Commercial & Industrial	No
Net Metering (solar)	No
Temporary Service	No

- **In a tenant-landlord relationship, the utility account owner completes the opt-out form.**

***Ineligible to opt-out or opt-out is revoked if customer has record of:**

- Equipment tampering or electric/water diversion
- Service disconnection for lack of payment 2 times in a 12 month period
- Obstructed meter access for meter reading and/or meter maintenance

Proposed Opt-Out Fees

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

One-Time Opt-Out Fee
(cost to setup meter and account for opt-out)

+

Recurring Billing Cycle Fee
(recurring cost to manually read and process meters)

- Fees are based on TPU's estimated cost of service to configure and operate the opt-out program.
- Customers can opt-in at anytime for no charge.

Initial One Time Opt-Out Fee

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

One-Time Opt-Out Fee

(cost to setup meter and account for opt-out)

- **A one-time opt-out installation and administrative set up fee will be charged**
  - Fees will be based on estimated costs to TPU to accommodate opt-out meters
    - Additional field visits (labor and vehicles)
    - Additional software integrations
    - Additional equipment costs

- **One-time fee is *not charged* for customers completing their opt-out application before their meter is upgraded**

Recurring Billing Cycle Fee

Recurring Billing Cycle Fee

(recurring cost to manually read and process meters)

- **A recurring fee will be charged each billing cycle based on TPU's costs to provide the opt-out service, including:**
  - Meter reading labor
  - Vehicle and drive time
  - Customer services, data systems, and office administrative time.

- **Fees to begin on the billing cycle following meter installation**

Assistance Programs

- **Opt-out customers and associated opt-out fees will follow TPU's existing bill payment assistance programs and eligibility requirements.**

Discount Rate Program = 30% Discount

DRAFT Opt-Out Fees

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

- **Draft Opt-Out Fees:**

Opt-Out *BEFORE* Meter Upgrade

- Recurring Bill Cycle Fee*:
  - $20-30/cycle
- One Time Opt-Out Fee*:
  - $0 Electric Fee

Opt-Out *AFTER* Meter Upgrade

- Recurring Bill Cycle Fee*:
  - $20-30/cycle
- One Time Opt-Out Fee*:
  - $200-225 Electric Fee

*Assumptions:

1) 0.5% of all customers will opt-out, 2) Fees distributed equally to opt-out customers by commodity,
3) Assumed drive times between customer locations, 4) Minimum expected fee ranges shown, 5) Subject to change

Fee Examples

TACOMA PUBLIC UTILITIES

Draft Policy Discussion

Utility	One Time Fee	Monthly Meter Reading Fee	Comments
Seattle City Light	$124.43 (admin) $84.21 (install) $208.64 (total)	$15.87	-One-time install fee waived if opting-out two weeks before mass installation. -60% discount for rate assistance customers. -Net metering is not eligible.
Puget Sound Energy	$90 electric $50 gas	$15 per meter	-One-time fee waived if notified before mass installation. -Billing cycle fee is every other month.
Avista	$75	$5	-One-time fee waived if within 31 days of install. -Recurring fee waived for income assistance customers.
ComEd	$77.47	$21.53	-One-time fee charged if after installation. -Monthly fee begins four billing periods after installation.
Con Edison	$104.74 electric $93.91 gas	$9.50	-One-time fee only charged if after installation.
Grant PUD	$250.99	$63.64	-Rural.

Policy Decision #2

- Should additional software integration costs be allocated to the advanced meter project?
  - A) Staff Recommendation: No
    - Costs for electric opt-out would be allocated to individual customers through a one time fee
      - Current fee estimate: $200-225
    - Additional electric opt-out specific software integrations are required to automate and correctly synchronize the radio off electric meter with TPU systems (~$190,000)
  - B) Alternative: Yes
    - Aligns with general project scope and is consistent with the approach of similar project software integrations (e.g. pre-pay)
    - Eliminates a one time fee for opting-out of the electric advanced meter
      - It is challenging to precisely allocate specific one-time costs to individual customers (unknowns include the number of opt-outs and when opt-outs will occur)

Feedback and Next Steps

- **Feedback**
- **Next Steps:**
  - **Incorporate policy decisions into advanced meter workshops**
  - **Finalize policy documentation:**
    - Resolution
    - Opt-out form
    - Costs and Fees
  - **Finalize customer communication strategy and materials**
  - **Prepare for policy review and approval**

Our Energy Future

Session 2: Resource Adequacy

Ray Johnson
Assistant Power Manager

Rachel Clark
Resource Planning Manager

TACOMA POWER
TACOMA PUBLIC UTILITIES

Overview

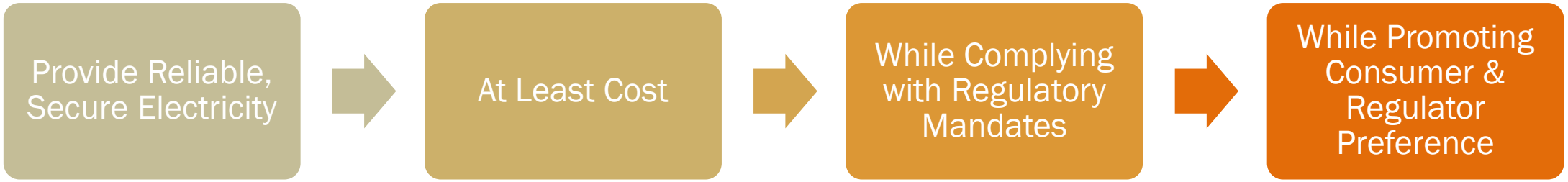
What is Resource Adequacy?

Having enough resources to serve loads

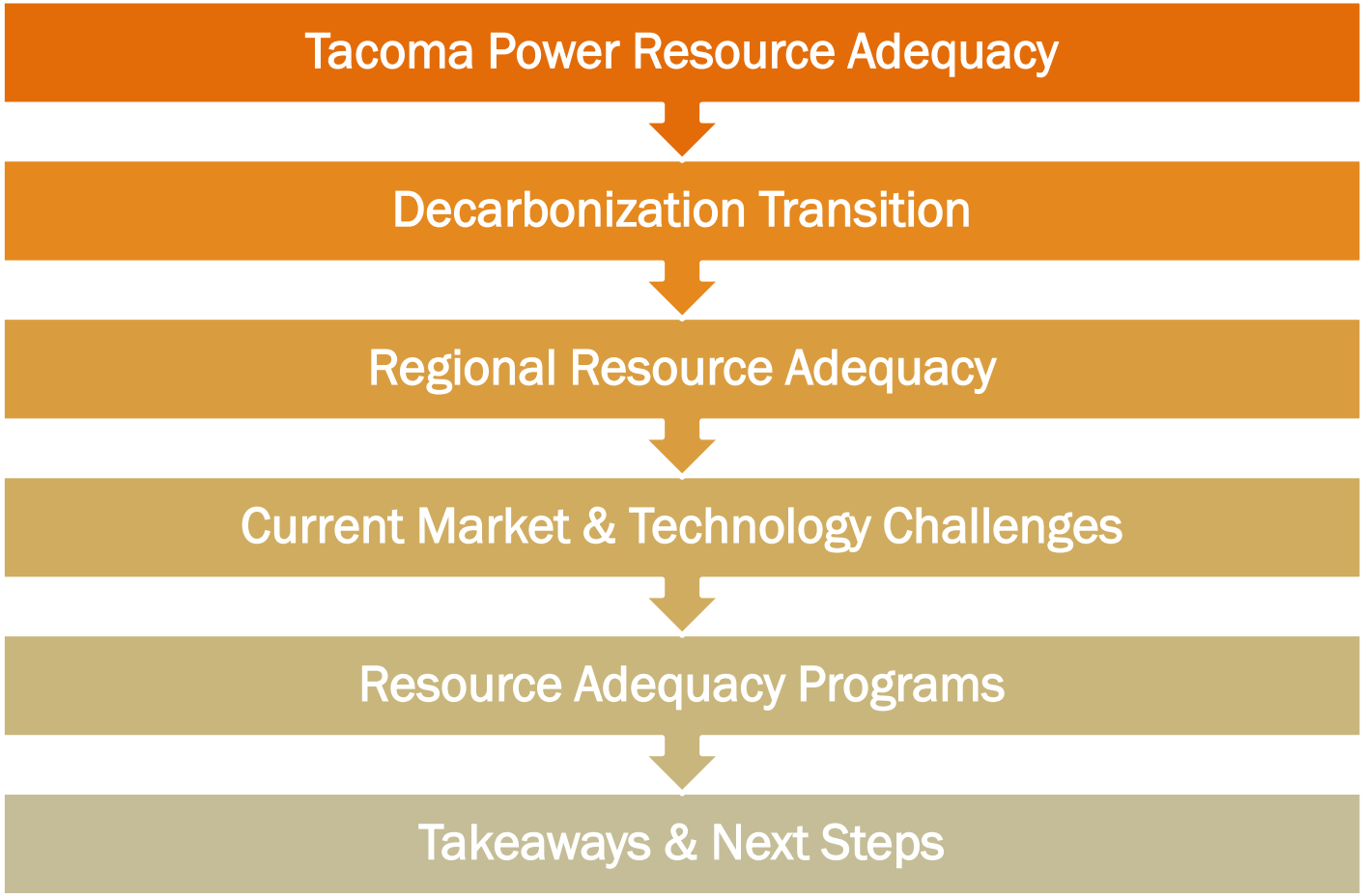
Resource adequacy can be measured in different ways and on different geographic levels (utility-specific, regional, etc.)

Overview

Today's Challenge for Utilities



Presentation Overview



Tacoma Power Resource Adequacy

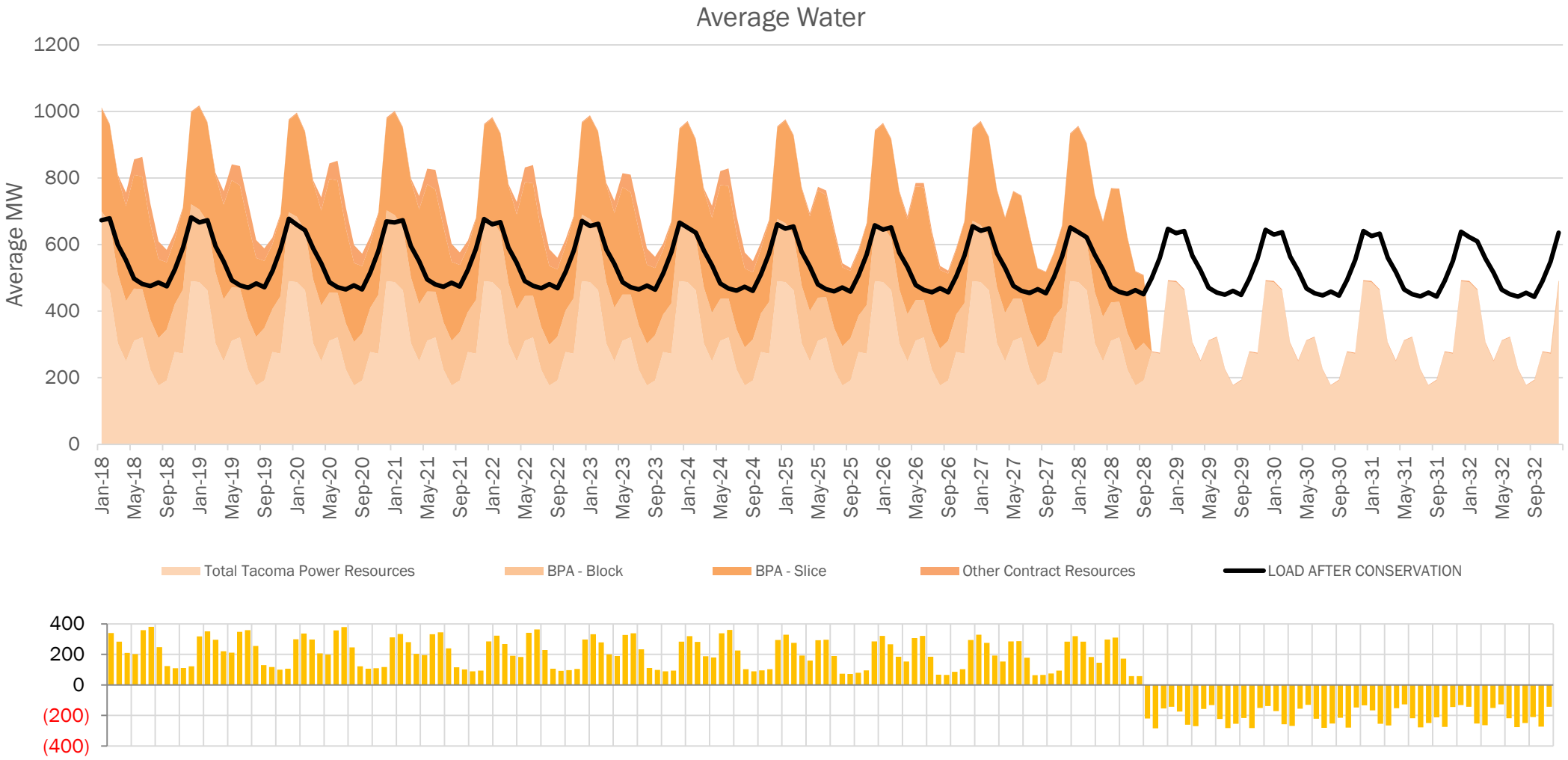
Section 1

Does Tacoma Power have adequate resources now? Will it in the future?

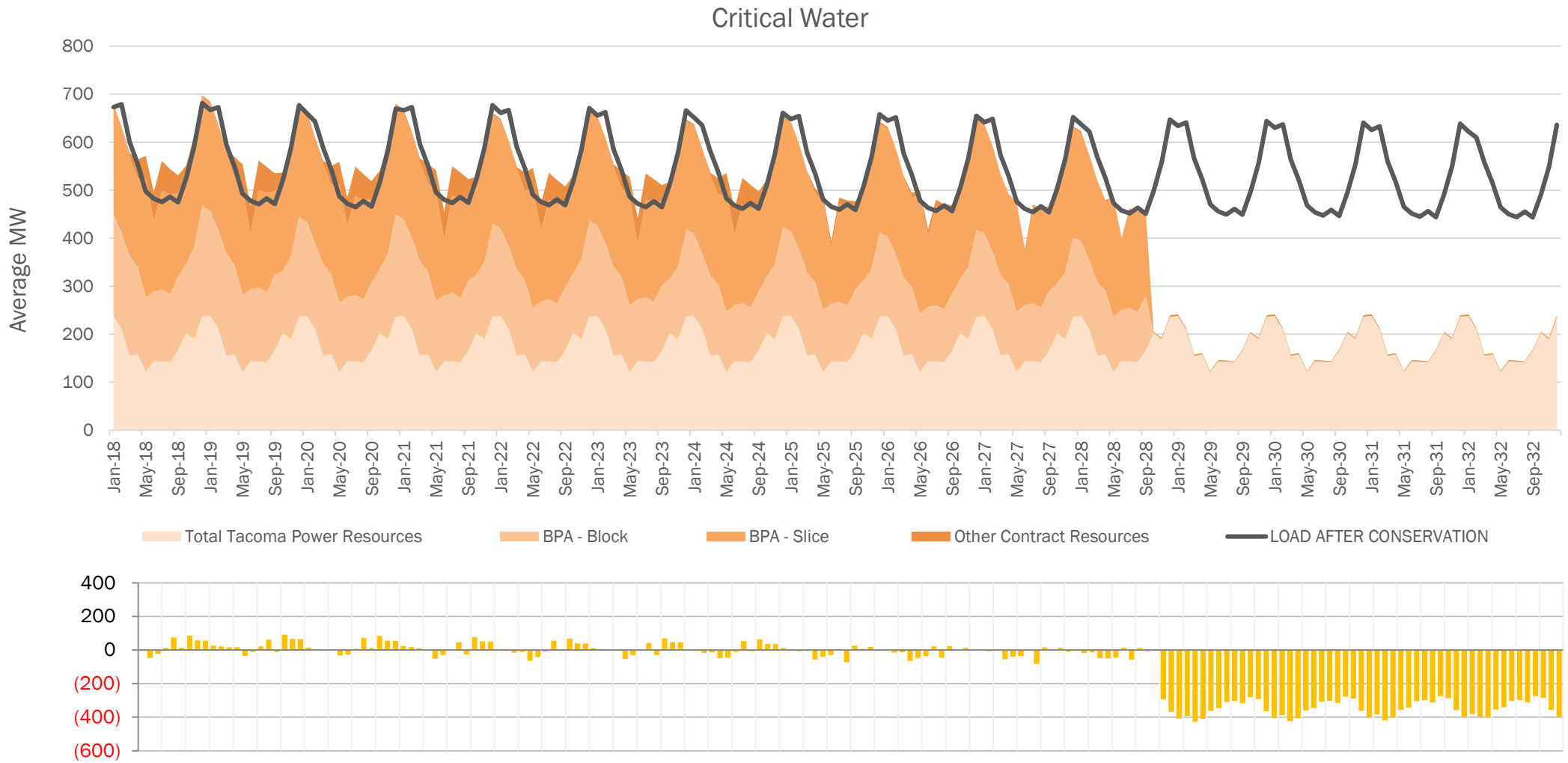
Question 1

Tacoma Power Resource Adequacy

Energy: Long-Term Load-Resource Balance

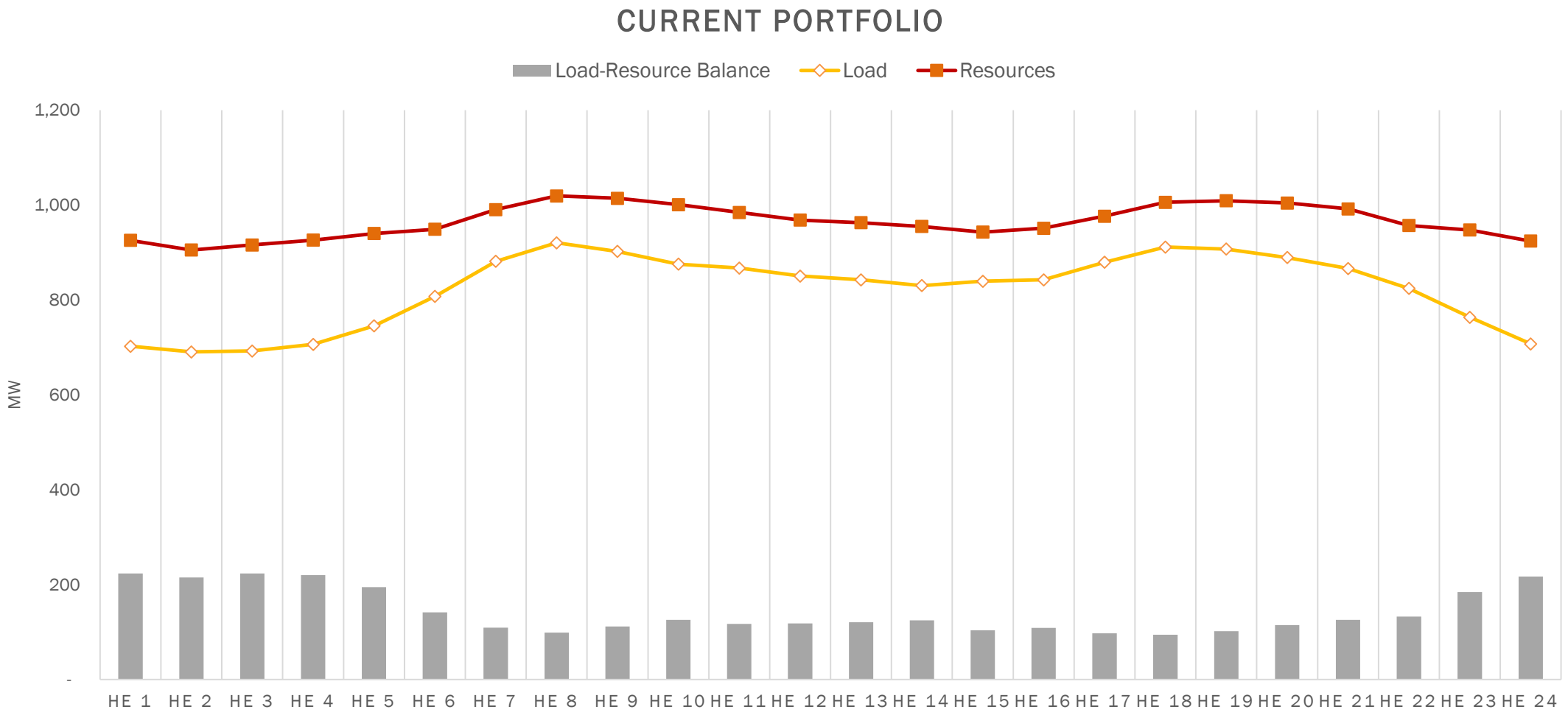


Energy: Long-Term Load-Resource Balance

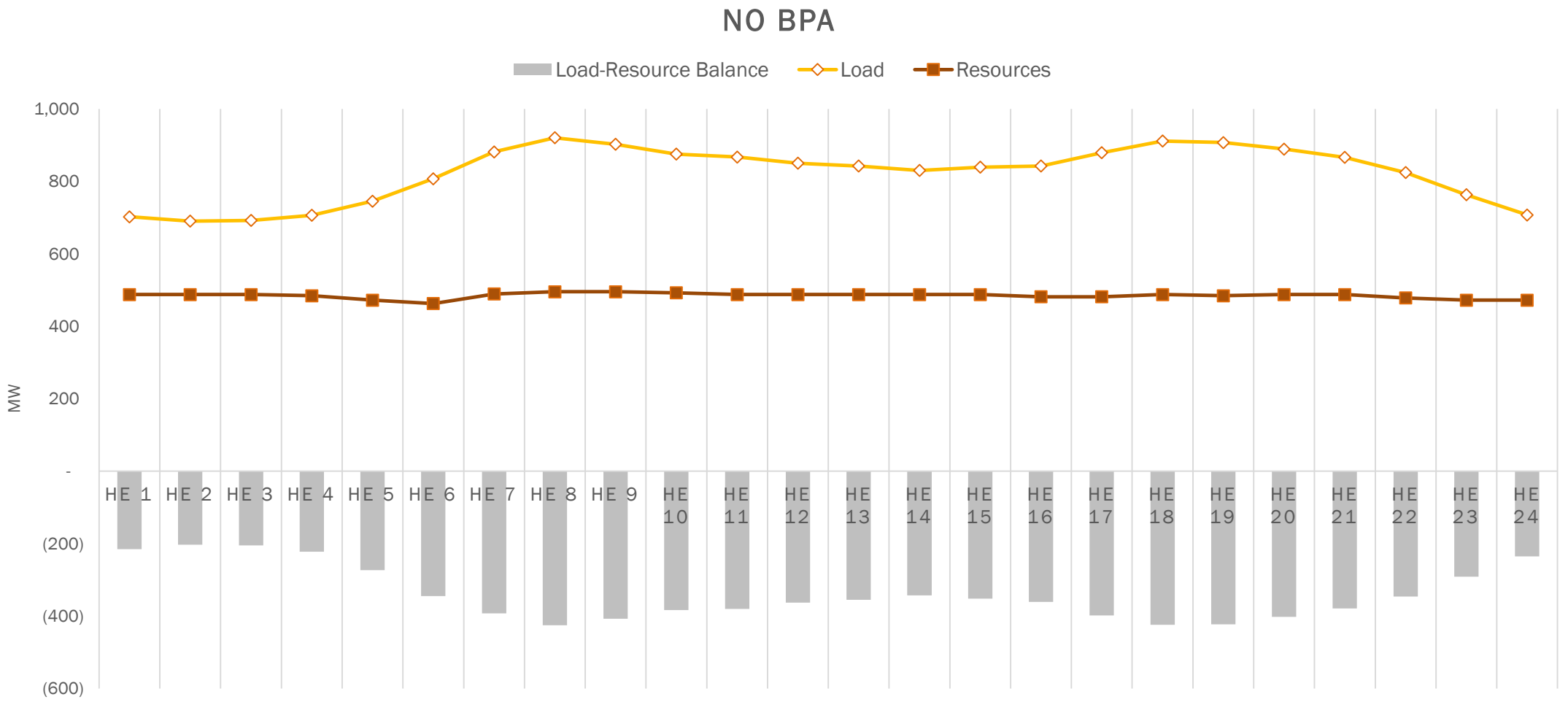


Tacoma Power Resource Adequacy

Capacity Now: January Peak Day



Capacity post-2028: January Peak Day



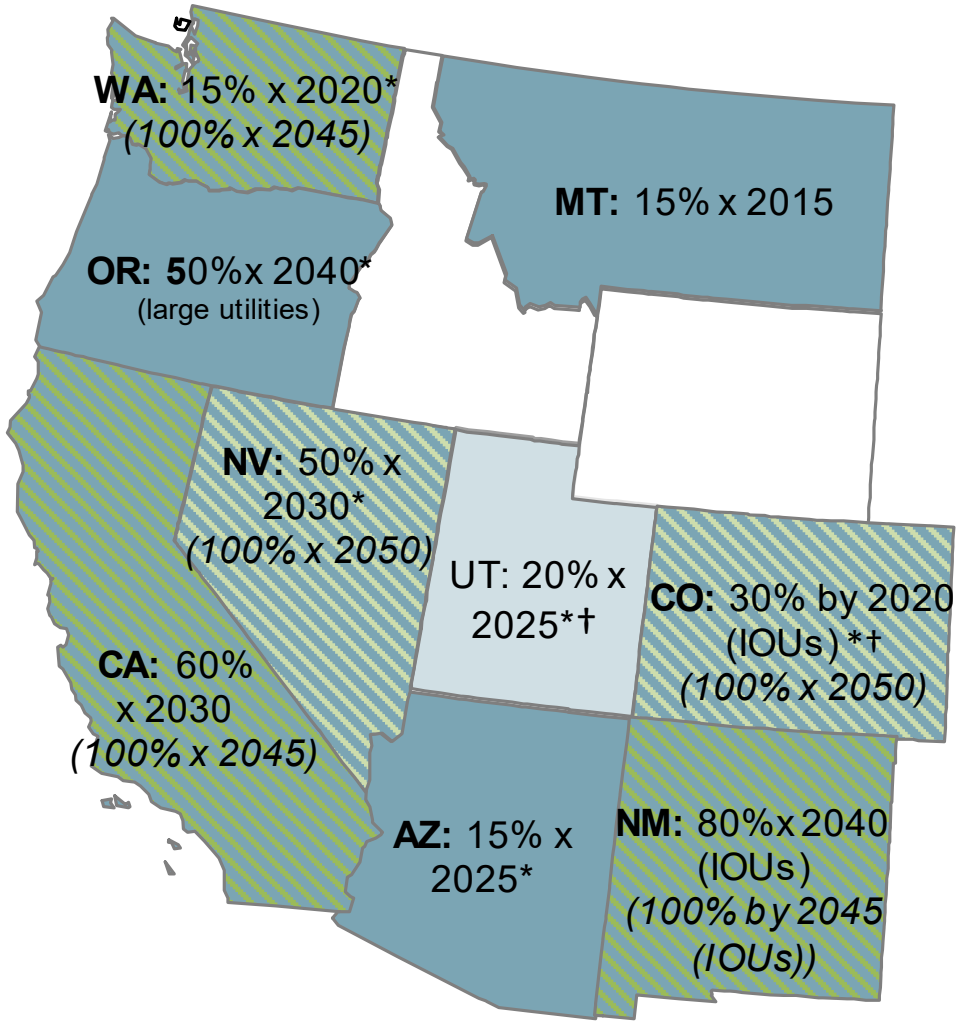
Decarbonization Transition

Section 2

How will the transition toward decarbonization impact regional resource adequacy?

Question 2

WECC Renewable & Clean Portfolio Standards



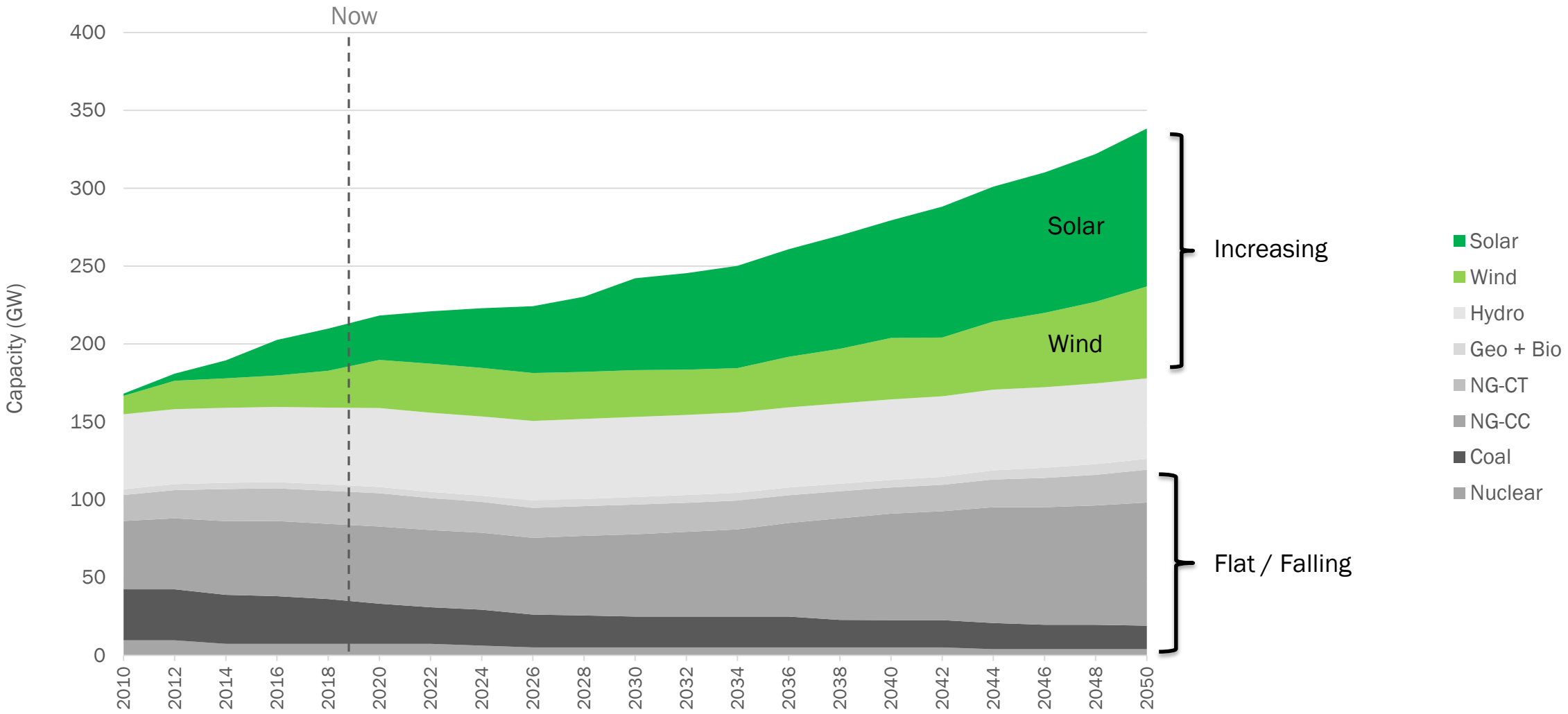
- Renewable portfolio standard
- Renewable portfolio goal
- *Clean energy standard*
- *Clean energy goal*

* Extra credit for solar or customer-sited renewables

† Includes non-renewable alternative resources

Decarbonization Transition

WECC Renewables to Increase, Coal to Decrease



NREL 2018 Standard Scenarios Report: A US Electricity Sector Outlook; Mid Case

Dispatch Characteristics

Dispatchable

Intermittent

A generating resource that is not continuously available due to external factors that cannot be controlled.

Base-Load

Base load power plants are plants that tend to operate continuously at maximum output.

Peaking

A generating resource that is run occasionally – usually to meet high demand.

Load Following

A generating resource that adjusts its power output as demand fluctuates throughout the day.

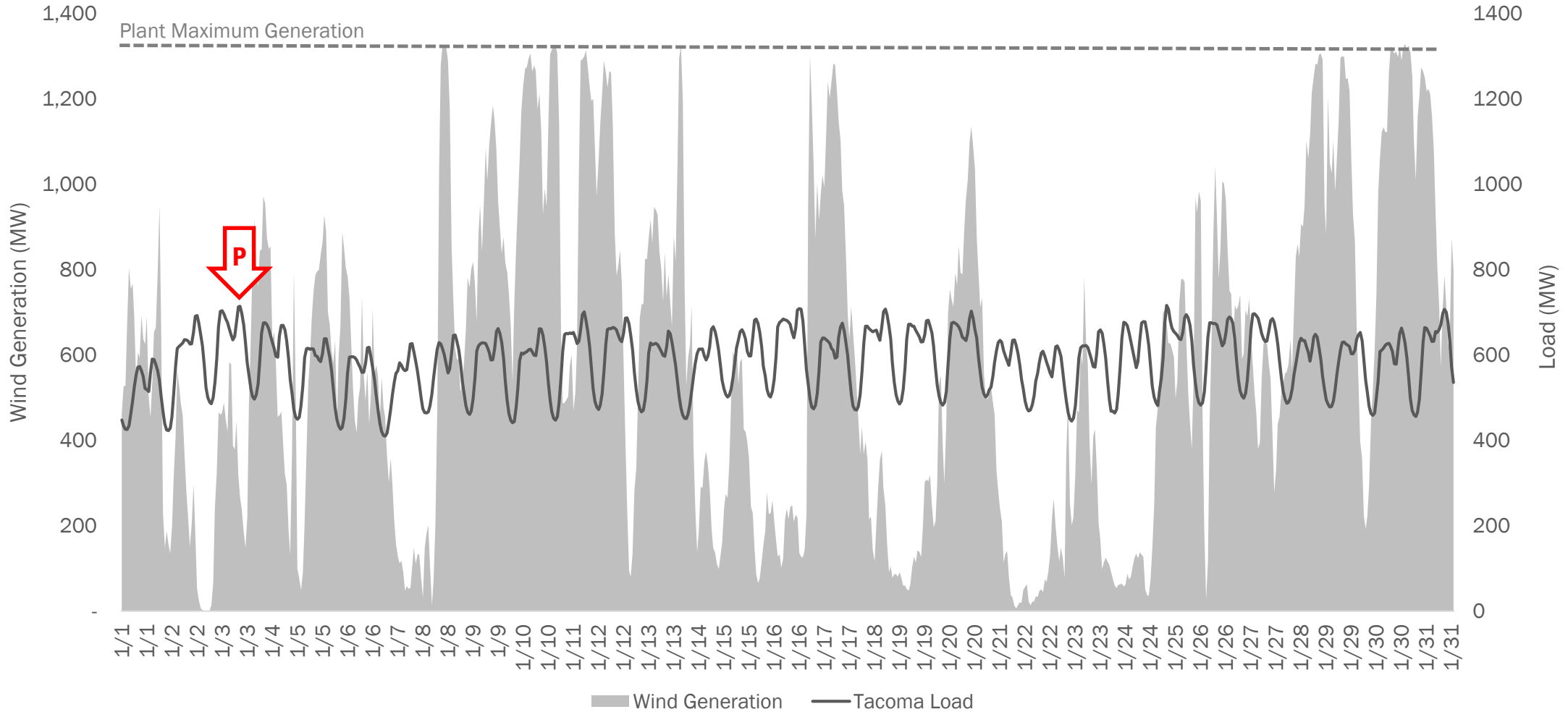
Decarbonization Transition

Dispatch Characteristics

		Dispatch			
		Intermittent	Base-Load	Peaking	Load-Following
Alternative	Wind	■			
	Solar PV	■			
	Fuel Cell		■		
	Demand Response			■	▨
	Battery			▨	■
	Geothermal		■		
Conventional	Coal		■		■
	Nuclear		■		
	Gas Peaking			■	■
	Gas Combined Cycle		■		■
Tacoma	BPA		▨	■	■
	Conservation		■		
	Tacoma Projects	▨	▨	■	■

Decarbonization Transition

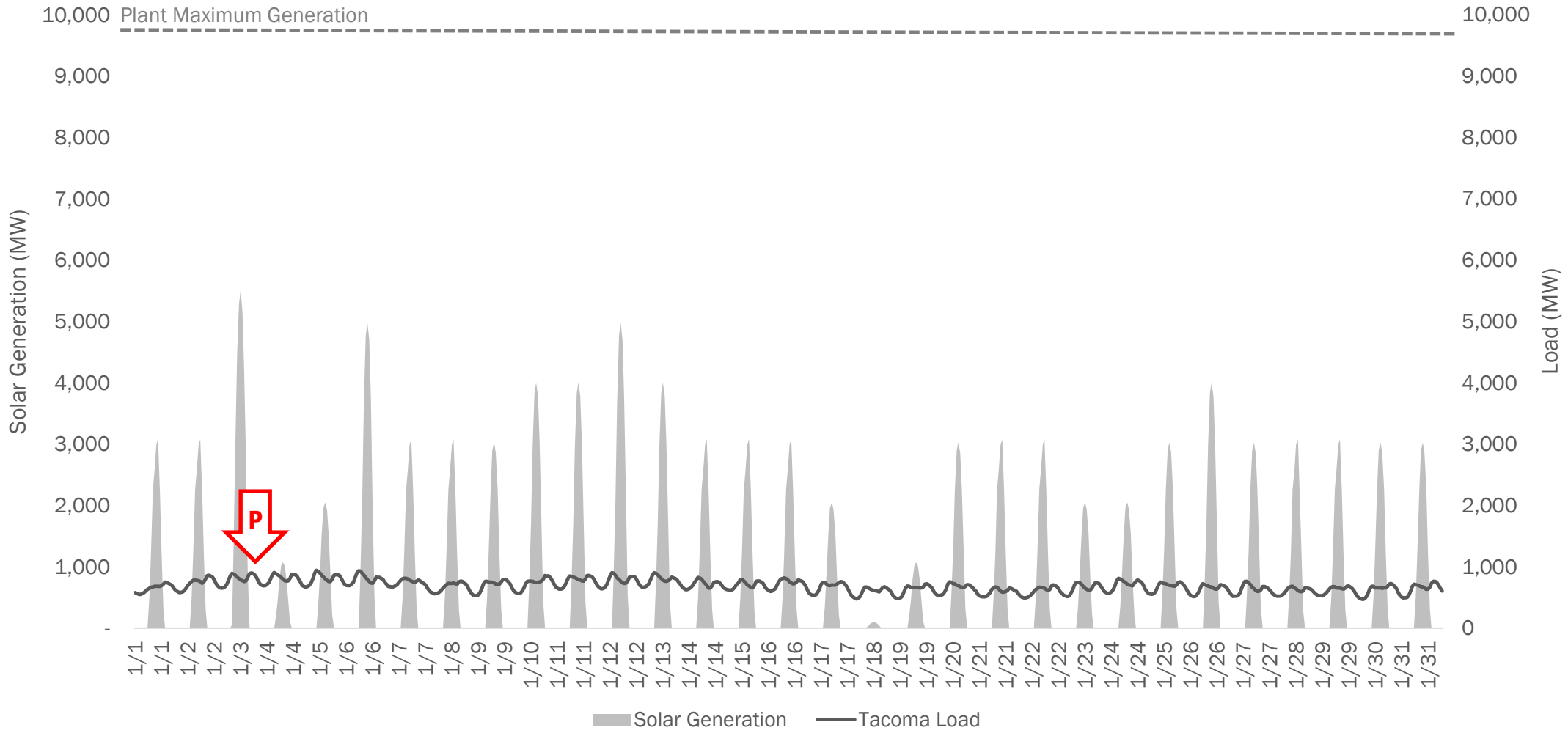
Wind Intermittency: January 2016



WECC 2008 TEPPC Wind Profiles (WA1)

Decarbonization Transition

Solar Intermittency: January 2017



Regional Resource Adequacy

Section 3

Does the Northwest have adequate resources now? Will it in the future?

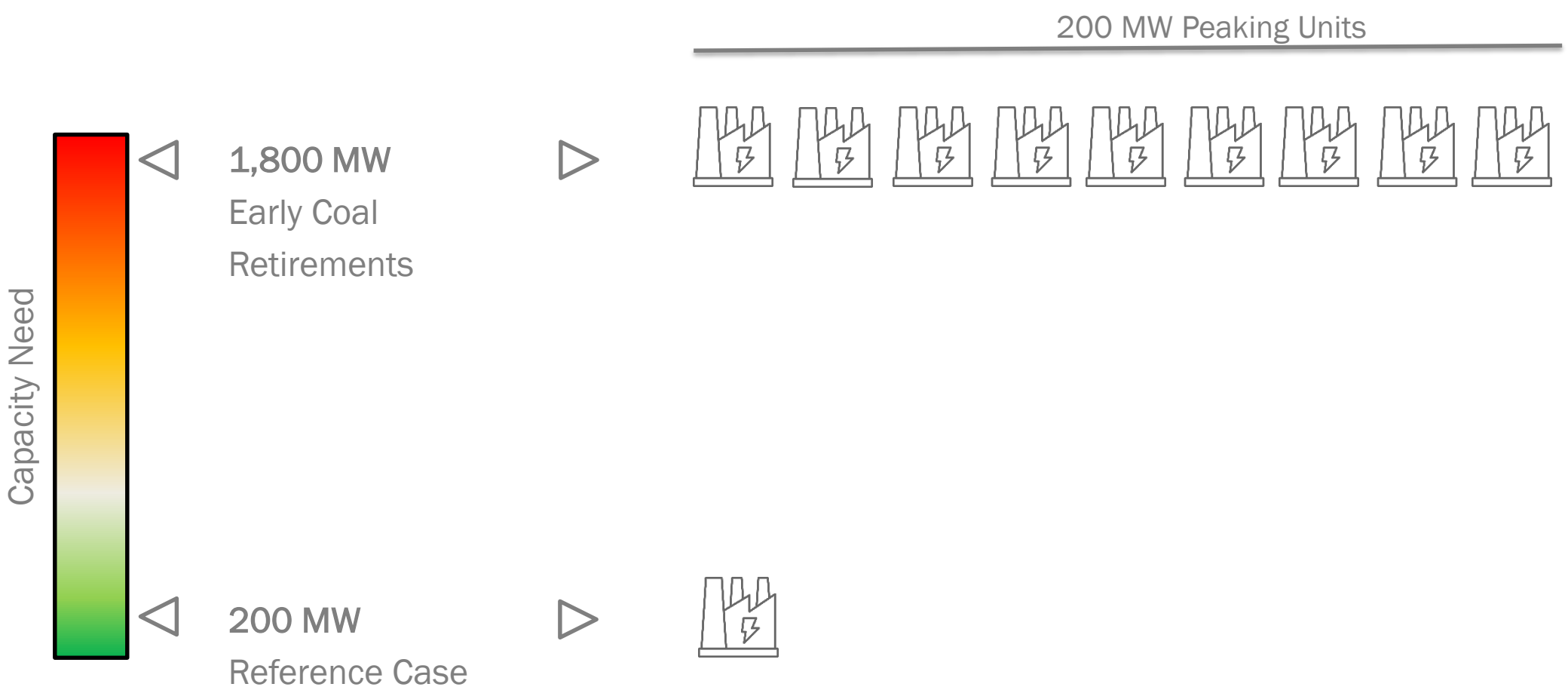
Question 3

NWPCC Resource Adequacy Assessment

https://vimeo.com/354085917

Regional Resource Adequacy

Estimated 2024 Capacity Need



Current Market & Technology Challenges

Section 4

What challenges do utilities face in addressing this potential shortfall?

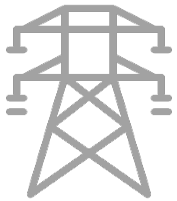
Question 4

Current Market & Technology Challenges

Limited Options at This Time

Natural Gas

Environmental policy in the region increase the difficulty in permitting, building new natural gas generation and expanding natural gas pipeline capacity.



Transmission

Challenges in building new transmission infrastructure to enable access to higher capacity factor renewables (e.g. Montana wind).

Other

High cost for emerging alternatives:

- Pumped hydro
- Batteries
- Demand Response
- Modular Nuclear
- Thermal with CCS
- Simple-cycle turbine with carbon-neutral fuel

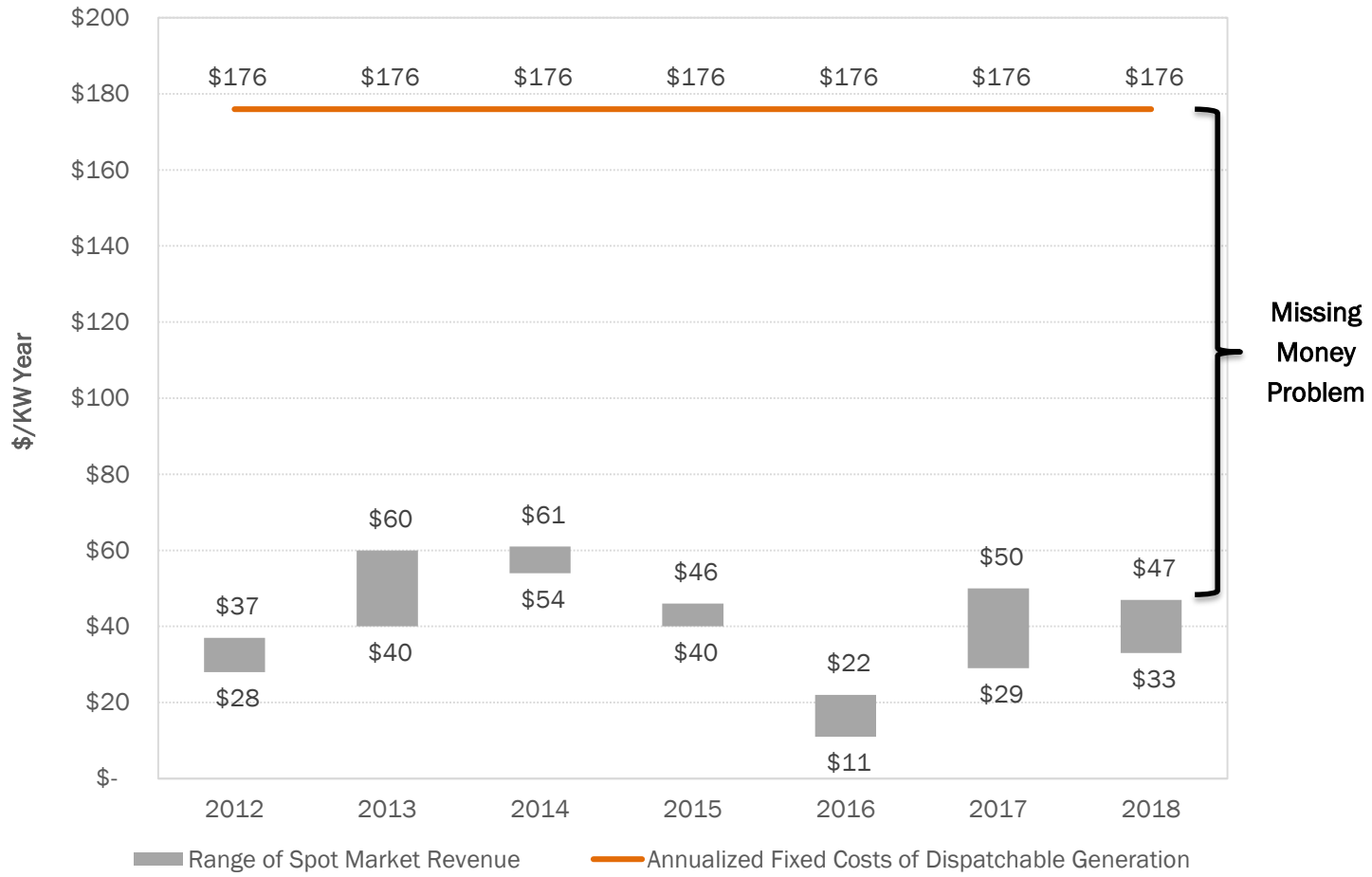
Current Market & Technology Challenges

Missing Money Problem

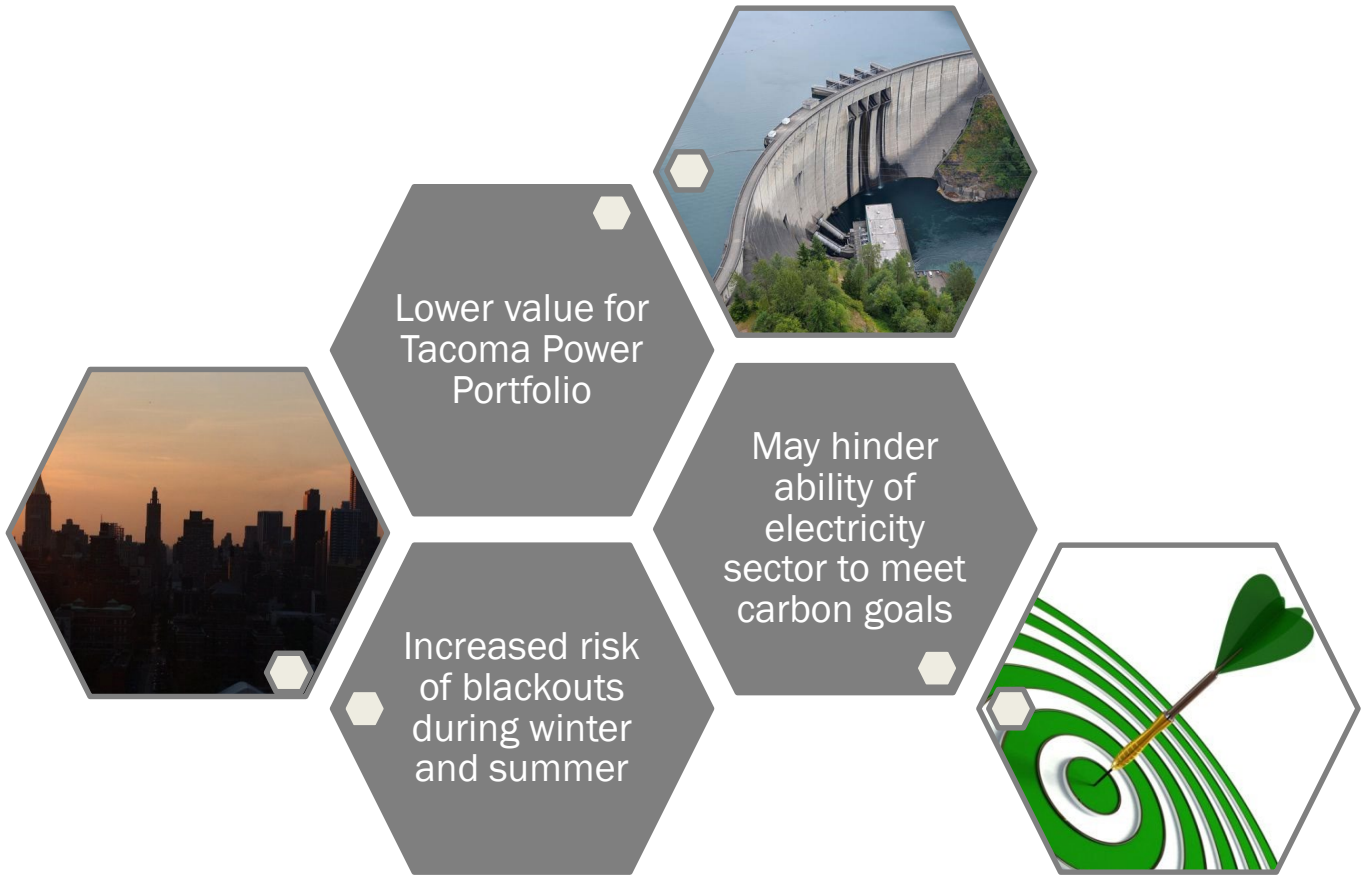
When market prices do not fully reflect the value of investment in the resources needed to meet load

Implications:

1. Existing clean dispatchable generation – such as hydro – may not be economic to keep online
2. Not adequate incentive to invest in new forms of dispatchable generation



Implications



Resource Adequacy Programs

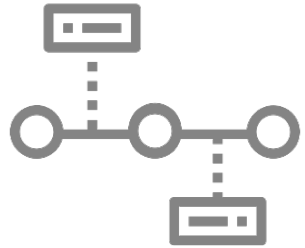
Section 5

Are there changes that can help assure we meet our goals?

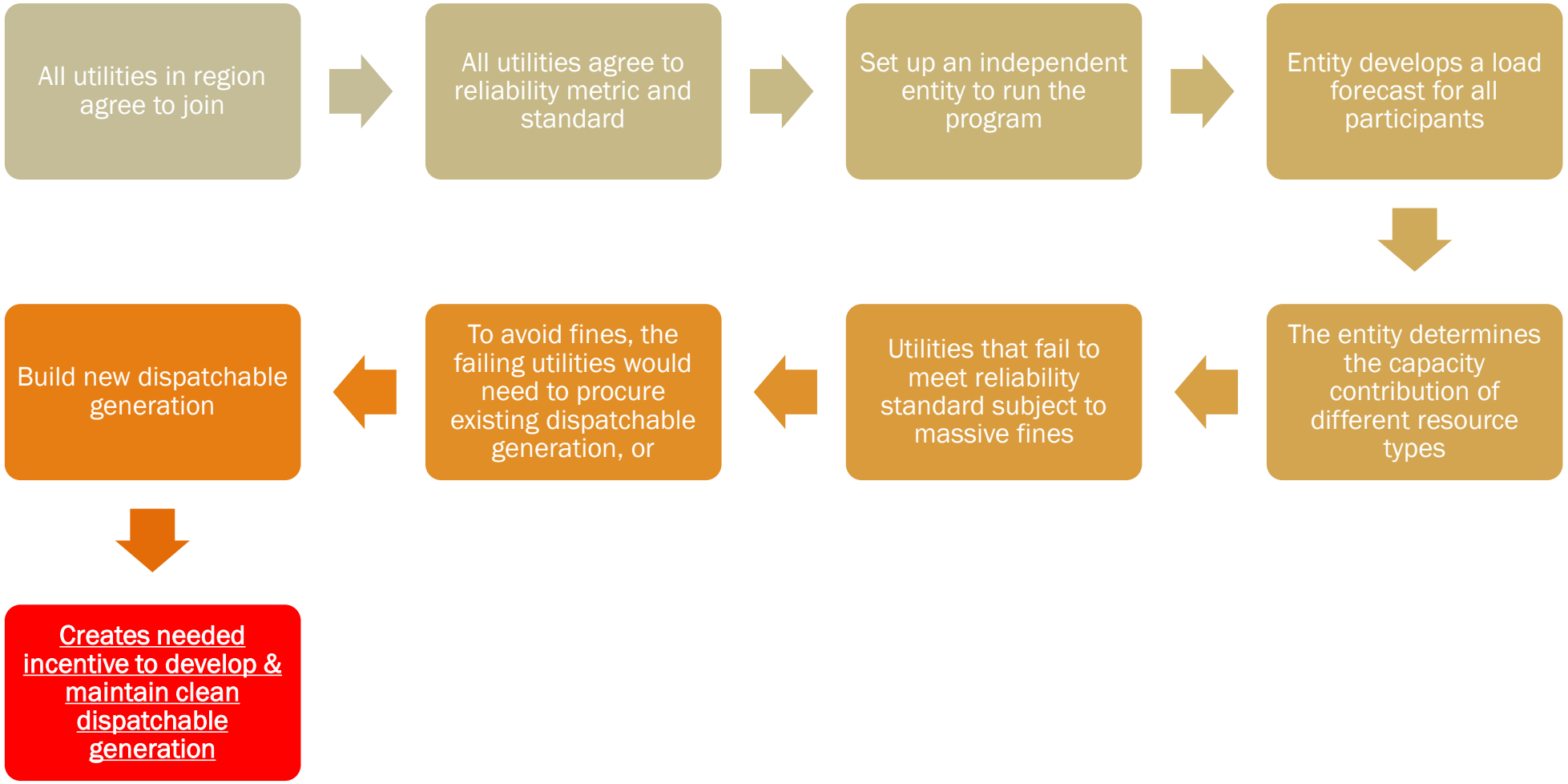
Question 5

What is a Resource Adequacy Program?

- A resource adequacy program coordinates and directs utility investment in dispatchable generation a few years ahead of when electricity needs to be delivered.
- This lead time is necessary, as power resources take a long time to build – particularly emerging generation or storage technologies.
- The objective of a program is to provide reliability and lower costs & risks for rate payers



How Might a Northwest Program Work?



Takeaways & Next Steps

Section 6

Key Takeaways

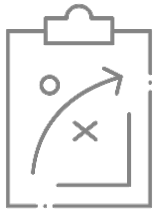
The WECC region is at risk of having insufficient resources in the immediate future

Today's markets do **not** provide the correct incentives to assure resource adequacy and may impair the industry's ability to meet carbon goals

The region should develop a regional resource adequacy program to address the "missing money" problem and increase investment in clean dispatchable generation

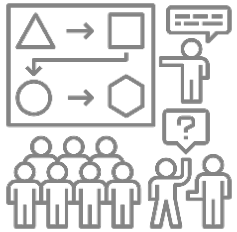
Tacoma Power will not have sufficient resources after 2028; resource adequacy needs to be a key metric for portfolios considered in the 2020 IRP

Next Steps



2020 IRP

- Develop new resource adequacy metrics for Tacoma Power 2020 IRP
- Explore emerging capacity and flexible capacity resources



Regional Collaboration

- Work with other utilities through Northwest Power Pool to develop a regional resource adequacy standard