

CEP – Community Learning Lab # 3

November 17, 2022



Agenda

10:00 – 10:10 am: Welcome & Meeting Logistics

10:10 – 10:15 am: Previous Clean Energy Plan (CEP) Learning Lab Recap

10:15 – 10:45 am: Community Based Resources (CBREs) & Community Benefits Indicators (CBIs)

10:45 – 11:15 am: Resilience

11:15 – 11:55 am: Request for Proposal (RFP) 101

11:25 – 11:55 am: Previous Integrated Resource Planning (IRP) Roundtable Recap

11:55 – 12:00 pm: Next Steps & Closing Remarks

Meeting Objectives

Socialize PGE's approach to Clean Energy Plan concepts

Request feedback on PGE's approach

Provide progress updates on the evolution on PGE's approach presented in previous meetings & how stakeholder's feedback was considered

Share timelines & next steps



Meeting Logistics



Audio



Microphone



Chat box



Video



Raise Hand



Closed Caption



Mural Board

Operating Agreements

Establishing norms with our communities is foundational to building trust.

To create a **safe space**, we established **common agreements** such as **respect, diversity of thought** and **inclusivity**.

Practice curiosity and **seek to understand different perspectives**.

**Stay
Engaged**

**Be Willing To
Experience
Discomfort**

**Speak your
Truth**

**Expect and
Accept Non-
closure**

**Share the
Airtime**



[The courageous conversations framework](#)

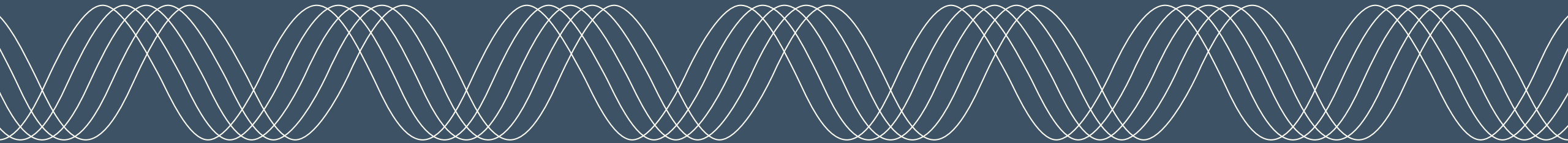
By Glenn Singleton and Curtis Linton



CEP Community Learning Lab # 2 Recap

Samantha Thompson, Energy Equity Partner, Distribution Resource Planning

November 17, 2022, CEP Community Learning Lab # 3



Topics Covered in CEP Learning Lab #2

Distribution System Plan (DSP) recap and implementation plan

Energy Trust of Oregon (ETO) and PGE collaboration

Integrated Resource Planning (IRP) 101

Grid needs

Non-wires solution

Community Based Resources (CBREs)

What We Heard Last Time

Community engagement recommendations for identified three DSP grid need locations

- Arleta/Holgate
- Eastport
- Dayton

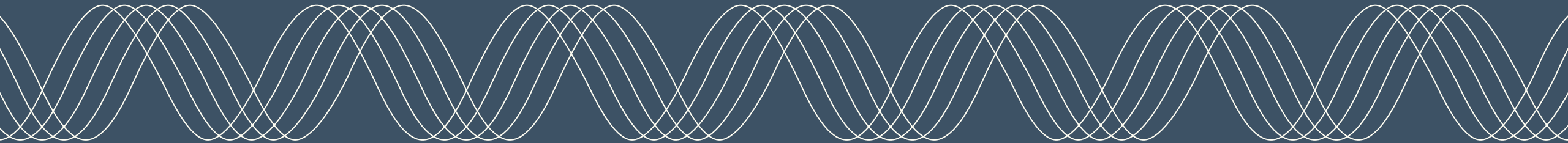
Participant feedback

- Found topics relevant and useful
- Presentation was well-organized & easy to follow
- Streamline multiple filings (e.g., CEP, DSP, IRP, TE and WMP)

Community Based Resources (CBREs) & Community Benefits Indicators (CBIs)

Andy Eiden: Principal Strategy & Planning Analyst, Distributed Resource Planning

November 17, 2022, CEP Community Learning Lab # 3



UM 2225 Guidance for CBIs

1

- The utility should develop interim community-benefit-indicators (CBIs)
- in coordination with communities served by the utility &
 - with input from stakeholders & Staff

2

- At a minimum, the interim CBIs should include at least one metric of
- (1) Informational CBIs (iCBIs),
 - (2) CBRE-focused CBIs (rCBIs), &
 - (3) Portfolio CBIs (pCBIs)

3

- At a minimum, the utilities should use quantifiable & measurable interim CBIs in development of the first CEP/IRP that together address the following CBI topic areas:
- Resilience (system and community)
 - Health and community well-being
 - Environmental impacts
 - Energy Equity (distributional and intergenerational equity)
 - Economic impacts



Our Approach

Review CBRE definitions & resource potential

Discuss specific project ideas & possible partnerships for CBRE development

Discuss interim CBIs that should be prioritized in the first CEP

CBRE Resource Potential

Criteria

- Smaller scale (~ 1-20 MW) resources that are front-of-the-meter & distribution-connected
- Provide community benefits (e.g., resiliency, bill savings benefits, etc.)

Resources

- Standalone, community-scale solar Photo Voltaic (PV) resources
- Solar + storage microgrids for resiliency
- Small low-impact hydro
- Municipal co-generation (e.g., biogas)

CBRE Resource Potential - Overview

Standalone Community-scale solar

Reviewed Oregon Community Solar cost data

Solar + storage microgrid

- Leveraged Cadeo resource potential for Community Resiliency Microgrids
- Analyzed PGE reliability and outage data at feeder level
- Identified 144 feeders within criteria zones (PSPS, critical customers, # outages, etc.)
- Sized solar and storage microgrids for 72-hour duration outages
- Leverages existing installed DER on the network

In-conduit hydropower

- Discussed individual project potential with Energy Trust
- Reviewed Oak Ridge National Lab study, "An Assessment of Hydropower Potential at National Conduits" October 2022



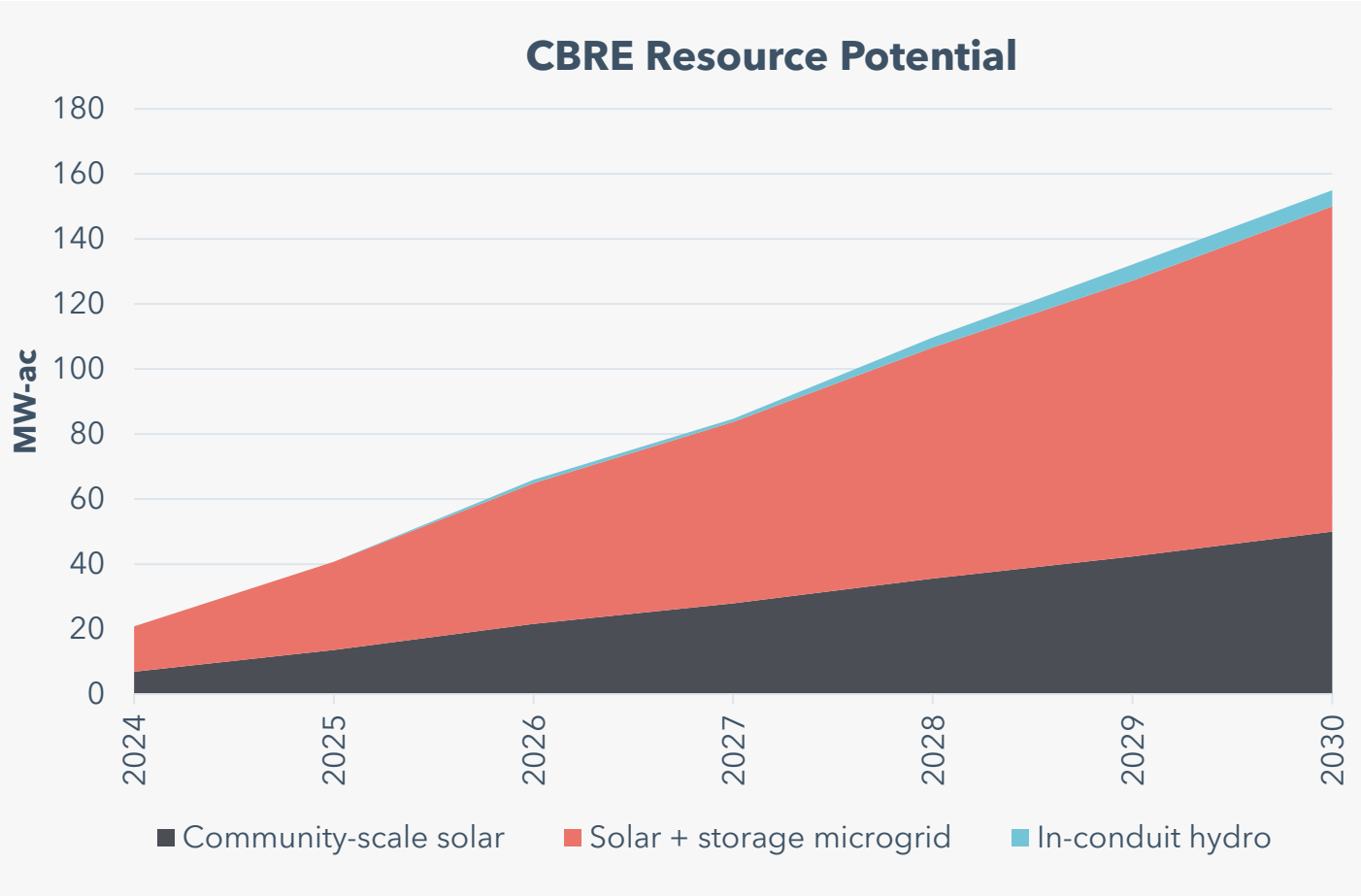
CBRE Resource Potential - Results

155 MW-ac of full resource potential by 2030

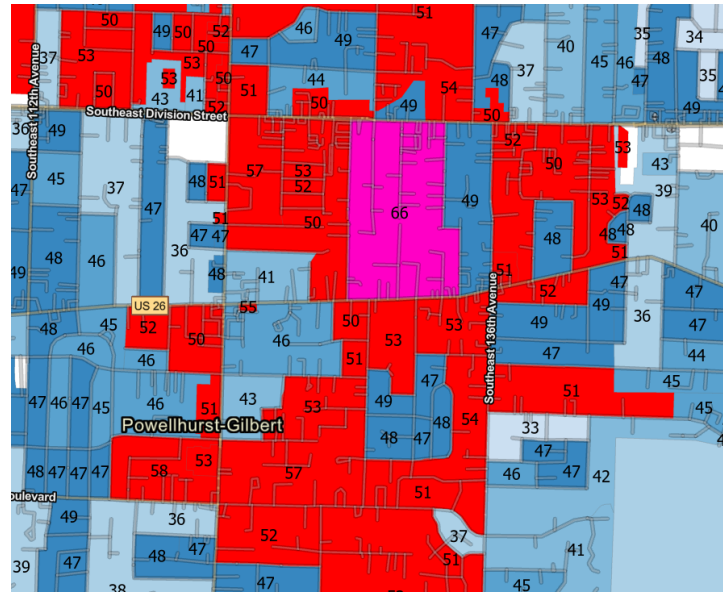
Scaled over time to reflect uncertainty in nascent market + low bandwidth from municipal partners

Did not account for local land availability or relative real estate costs (i.e., land constraints)

Note: this does not include rooftop solar + storage, or other "climate-resiliency infrastructure" such as EE and DR, because they are separately modeled in the IRP



Aligning CBRE with Community Need



Benefit Indicators

Advocates presented list of 15 CBIs under docket no. UM 2225

PGE is reviewing these and conducting research to quantify where possible

We are prioritizing values we saw as most important to stakeholders for incorporation into IRP portfolio analysis:

- **Resiliency indicators**
- **Economic indicators**
- **Community/municipal ownership**

Would like feedback on which additional metrics are most important to prioritize going forward

UM 2225 Stakeholder CBI Proposal (without associated measures)

Tribal Benefits and Priorities

Ecosystem/Non-Energy Benefits

1. Protect fish and reduce the region's pressure on the Columbia River ecosystem
2. Meaningful bilateral engagement between utilities and tribes on siting

Energy Benefits

1. Increased availability of electricity storage in Tribal and non-Tribal communities
2. Improve energy efficiency of housing stock in Tribal communities
3. Increased number of clean energy generation that powers Tribal communities

Larger Community Benefits and Priorities

Energy Benefits

1. Improve efficiency of housing stock in utility service territory, including low-income housing
2. Low income and vulnerable communities have access to an increasing number of renewable or non-emitting distributed generation resources

Non-Energy Benefits

1. Community Employment opportunities
2. Health and Community well-being
3. Improved Public Health outcomes
4. Reduction in number of customers suffering from high energy burden
5. Reduced barriers for program participation

Environment

1. Reduction of GHG emissions
2. Reduced Pollution Burden and Pollution Exposure
3. Increase Neighborhood Safety

Energy Security

1. Reduced Residential Disconnections
2. Improved access to reliable clean energy

Resilience

1. Reduction in frequency and duration of blackouts or brownouts in target communities
2. Reduction in energy and capacity need
3. Reduction in recovery time and increase in survivability from outages

Mural Exercise Here

We prioritized these three indicators to start:

- **Resiliency indicators**
- **Economic indicators**
- **Community/municipal ownership**

Which additional indicators should be prioritized going forward.

Help us prioritize the Community Benefits Indicators by adding a star to it

CBRE-CBI (rCBI) Approach Considerations

Resiliency was highlighted by Staff's straw proposal as the number one focus for short-term inclusion into quantitative measurement

Likewise, ODOE's CBRE working group report, the single most important benefit of CBRE is local resiliency

PGE is exploring resiliency as an rCBI reflecting the quantitative value of resiliency associated with **solar + storage microgrids** for the first CEP

This is because microgrids have ability to provide uninterrupted service during a utility grid outage

According to a report by the NASEO-NARUC state-microgrid-working-group, there is no standard industry methodology for valuing resiliency¹

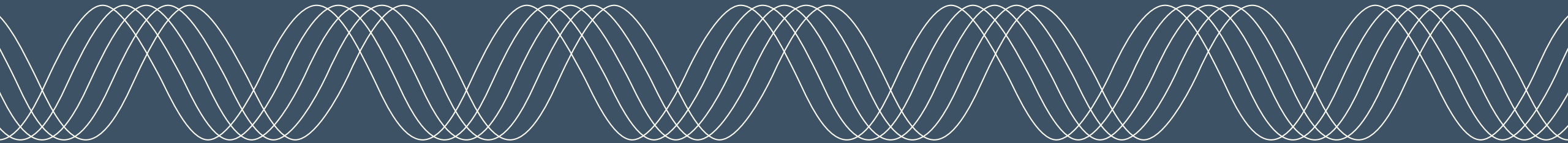
- We are exploring leveraging our Asset Management Team's risk methodology for assessing economic value of outages using a "**value of service**" approach, which was discussed in our DSP, as well as the FEMA benefit-cost methodology for resiliency
- Combines risk of outage with the consequence of outage to determine risk value
- Reflects customer value which must be balanced with other costs and risks within the IRP framework

1. See report titled "Valuing Resilience for Microgrids: Challenges, Innovative Approaches, and State Needs" available for download at: <https://www.naruc.org/cpi-1/critical-infrastructure-cybersecurity-and-resilience/microgrids/>

Resilience

Erik Anderson, Sr Principal Policy Integrator, Transmission & Interconnections

November 17, 2022, CEP Community Learning Lab # 3



UM 2225 Guidance for Resiliency

The first CEP must include **narrative** which describes its **resiliency-related analysis**, including at minimum

1

How it was developed

- in coordination with communities served by the utility, including EJ communities &
- with input from stakeholders & Staff

2

How resiliency risks were considered, examined & weighted

3

How resiliency opportunities were identified, measured, & weighted

4

The key resiliency-related actions the utility will prioritize in the action plan window to support its CBRE acquisition targets

Approach



Clean Energy Plan (CEP) Guidelines & Definitions

Develop in partnership with
our Communities



On today's CEP Learning Lab, we will work on expanding our understanding of



- **Utility Reliability Performance & Risks**
- **Customer "Zone of Tolerance"**

On upcoming CEP Learning Labs we will work to develop



- **Strategies to Support Community Resiliency**
- **Methodology for Prioritizing & Weighting Strategies & Projects**

Definitions of Resilience

Energy Resilience (HB 2021)

The ability of energy systems, from production through delivery to end-users, to withstand and restore energy delivery rapidly following non-routine disruptions of severe impact or duration.

Community Energy Resilience (HB 2021)

The ability of a specific community to maintain the availability of energy needed to support the provision of energy-dependent critical public services to the community following non-routine disruptions of severe impact or duration to the state's broader energy systems.

PGE's Definition in DSP

Being able to anticipate, adapt to, withstand, and quickly recover from disruptive events.



Our Approach to Resiliency



Review Guidance

OPUC [GMLC](#) Resilience Guidelines, Oregon's Guidebook for Local Energy Resilience (ODOE 2019)



Leverage Existing Work

Distribution System Plan, Integrated Resource Plan, Wildfire Mitigation Plan, Reliability Report



Enhance Resilience Value for Customers

Prioritize resilience projects to reflect populations at high risk



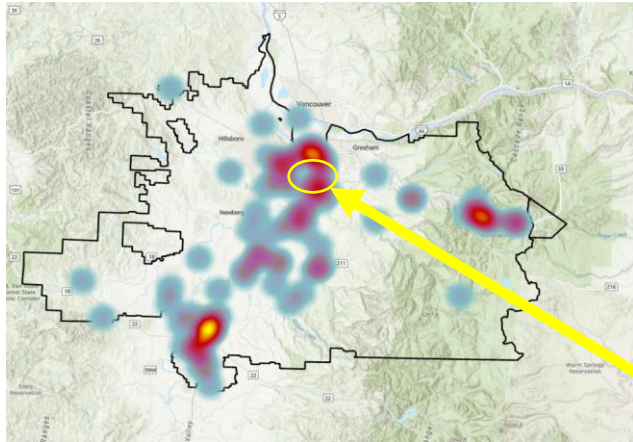
Community Input

Develop prioritization in partnership with communities

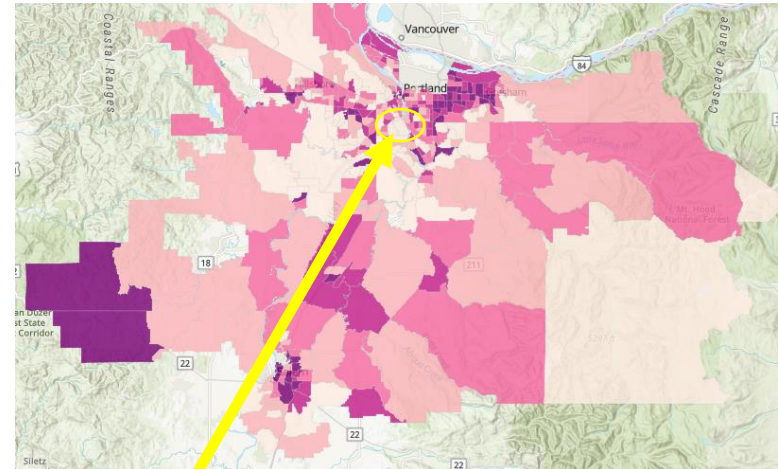


Resilience Prioritization Layers

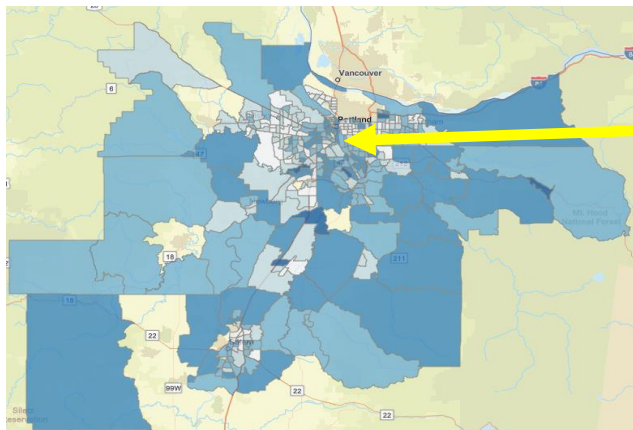
Heat map representing CEMI/CELID
(Darker area = more interruptions)



Equity Index Map
(Darker area = more disadvantaged)



Percentage of Residents 65+
(Darker area = more older residents)



Arleta-Holgate Neighborhood in SE Portland

Utility Metrics

Broaden our understanding of traditional reliability localized metrics

- CEMI6 (Customers Experiencing Multiple Interruptions - 6 or more per year)
- CELID24 (Customers Experiencing Long Interruption - duration of 24 or more hours at the time)

Study key resilience threats

- Climate Change Vulnerability (Wildfire Mitigation Plan, Ice Storm Recovery)
- Cascadia Subduction Earthquake Vulnerability

Update the Value-of-Service (VOS) measures to incorporate reliability & resiliency risk



Zone of Tolerance, [GMLC Report](#) Definition:

“Different capabilities of households and communities to endure the adverse impacts of service disruptions”

Distribution System Plan Map Demographic Data:

200% below the Poverty Line, Hispanic Latino, English 2nd Language

Energy Equity Matrix:

Energy burden, renters' percentage, without internet, others

List of Medical Certified Customers

Schedule 18- Income Qualified Bill Discounts

List of Critical Community Facilities

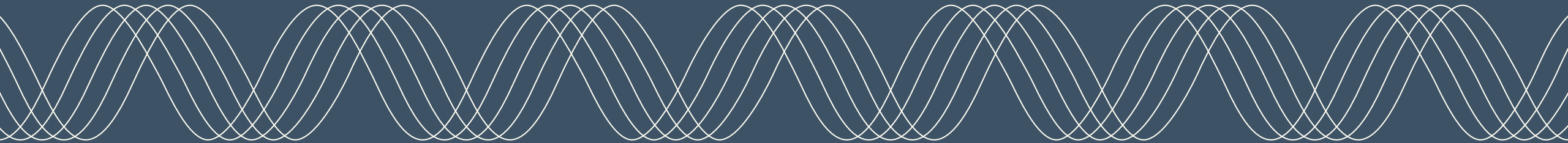
Mural Exercise Here

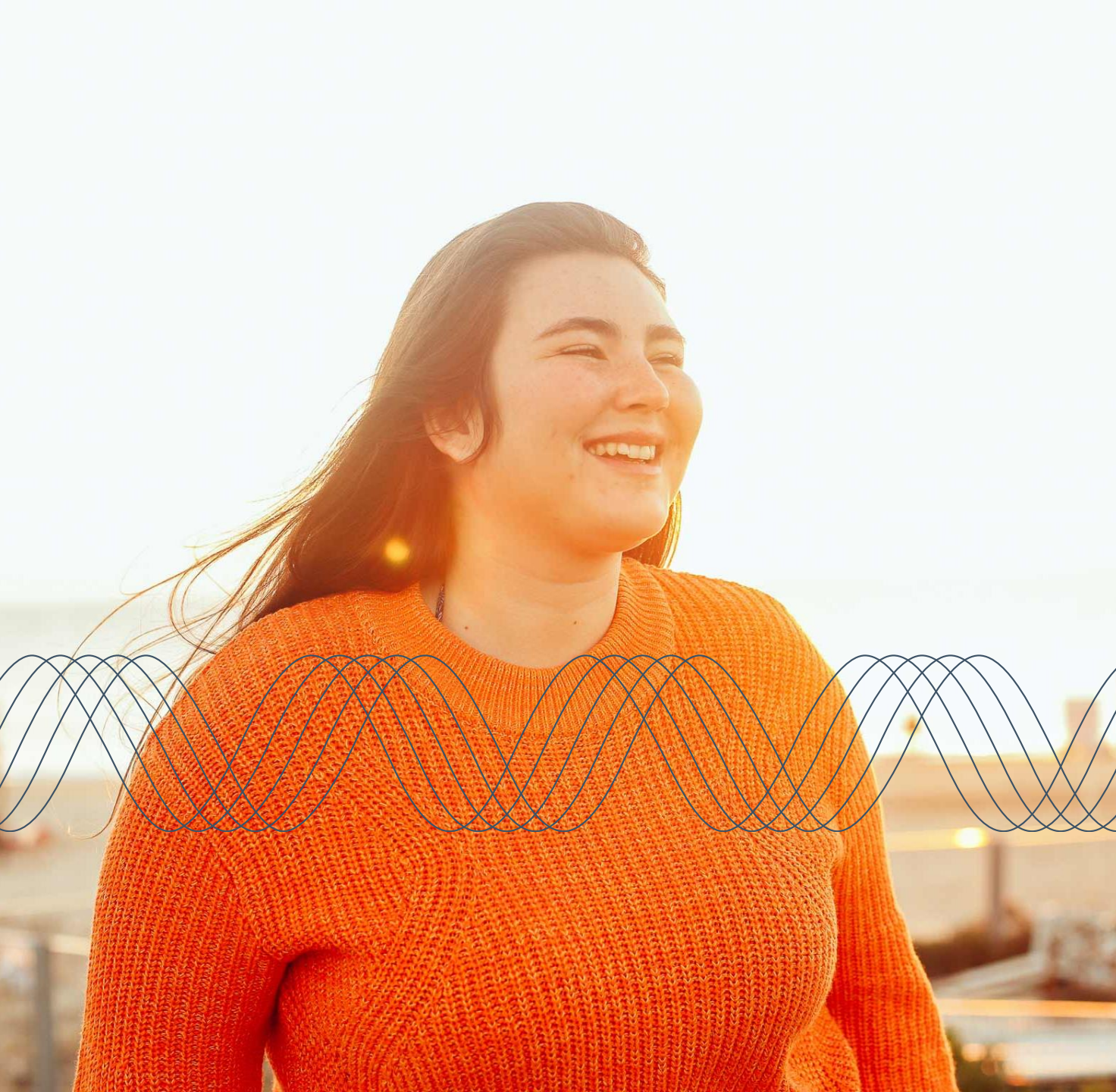
1. What other utility metrics do you recommend us considering to understand & analyze resilience in the CEP?
2. Let's cocreate a "zone of tolerance" definition for PGE's service area customers

Request for Proposal (RFP) 101

Jacob Goodspeed, Principal Energy Supply Procurement Originator, Renewable Initiatives
Shiraz Bengali, Senior Energy Supply Procurement Originator, Renewable Initiatives

November 17, 2022, DSP-CEP Community Learning Lab # 3





Objectives

- Introduction to RFP Process
- Solicit feedback on potential CBRE RFP

Request for Proposal 101 – Overview



What is a Request for Proposal (RFP)?

A solicitation process to acquire a product or service

What are the benefits of an RFP?

- Encourages competitive pricing
- Ensures a fair and unbiased process
- Reduces vendor risk to the buyer

What is the “public utility” RFP?

PGE conducts RFPs based on stated needs from the Integrated Resource Planning process

These RFPs are subject to Oregon specific Competitive Bidding Rules that are codified in state statutes

Request for Proposal 101 – Creation



Identify Need

What is the problem statement?

Criteria

Establish requirements & timeline

Evaluation Methodology

How will offers be reviewed?

Administration

Who will manage and execute process?

Request for Proposal 101 – Release



Identify Vendors/Bidders

Build awareness of upcoming opportunity

Issue RFP

Publish RFP documents

Q&A

Respond to questions from vendors

Deadline for Bids

Request for Proposal 101 – Evaluation



Compliance

Review for compliance with minimum requirements

Evaluation

Review proposals against evaluation methodology

Q&A

Clarify any proposal questions with vendors

Request for Proposal 101 – Selection



Selection

Identify the best performing proposal(s)

Contract

Negotiate with vendor(s) on signing a contract

Notify

Let unsuccessful vendors know



Potential CBRE RFP



HB2021

Directs electric utilities to examine the costs and opportunities from Community-Based-Renewable-Energy (CBRE)¹ in the Clean Energy Plan

PGE

Proposes appropriate annual CBRE MW targets through 2030 and acquisition pathways (e.g., RFP)

Community

Informs CBRE RFP design and CBI scoring metrics

¹Defined in HB 2021, Sec. 1(2): <https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2021/Enrolled>

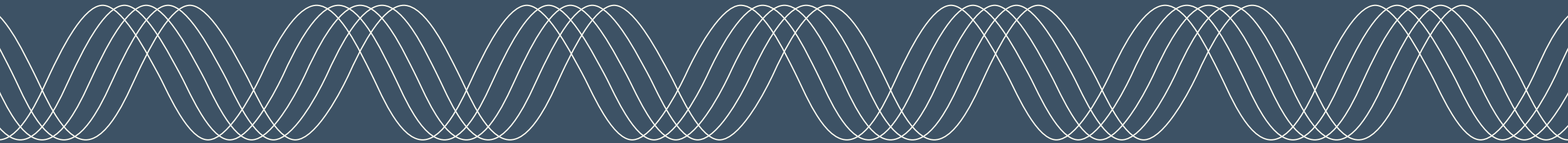
Mural Exercise Here

1. What are examples of community-based-renewables (CBREs) that could be solicited through a new acquisition process?
2. What other feedback would you encourage PGE to keep in mind as we explore acquisition processes for CBREs?
3. What most excites and most concerns you around this opportunity?

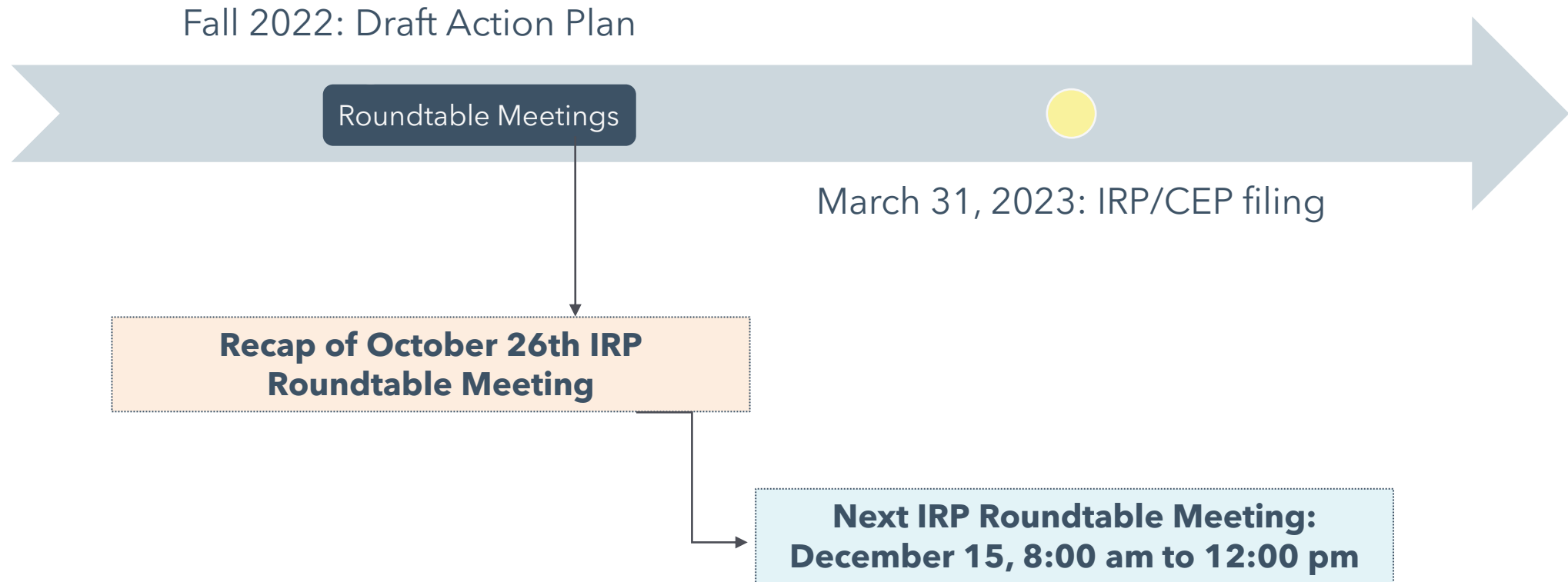
IRP Roundtable Recap

Rainbow Wong, Senior Integrated Resource Planning Analyst, Integrated Resource Planning

November 17, 2022, CEP Community Learning Lab # 3



Current IRP Timeline



October IRP Roundtable Meeting Recap



Transmission (continued)

The BPA network is over-subscribed and BPA has stated that no additional long-term transmission can be awarded until system updates are complete (expected in early 2030s)

- IRP team updated modelling assumption to reflect this transmission constraint on future resource planning and fulfilling capacity and energy need
- PGE is exploring alternate transmission sources to serve reliably



Climate Adaptation Study

PGE engaged Creative Renewable Solutions to perform a holistic survey of climate change impacts on PNW Utility

- Study findings inform additional climate sensitivity scenarios to consider in IRP modeling
- Next step for PGE is to quantify climate change forecasts on PGE's load, hydro generation, and peak need



Resource Adequacy

Sequoia is a model used to determine the amount of system capacity and need to adequately serve PGE customers

- The IRP team shortened the hydro and temperature year record to reflect the most recent 30 years. The team is also running sensitivities using climate change model data.
- The updated record shows increased summer needs and decreased winter needs

October IRP Roundtable Meeting Recap Cont.



Flexibility Study

PGE engaged Blue Marble Analytics to examine the flexibility needs, costs, and value to maintain reliability

The study shows that flexible resources bring additional value to the system and reinforced the necessity to deploy flexible resources that are relevant to the resource mix



Clean Energy Plan

Introduction and recap of the CEP-DSP learning labs to this group

Plan on bringing community-based renewable energy data and analytic results to the IRP roundtable to drive synergy among the CEP, DSP and IRP

Topics discussed at November IRP Roundtable



Transmission (continued)



Non-Cost-Effective Distributed Energy Resources



Emissions

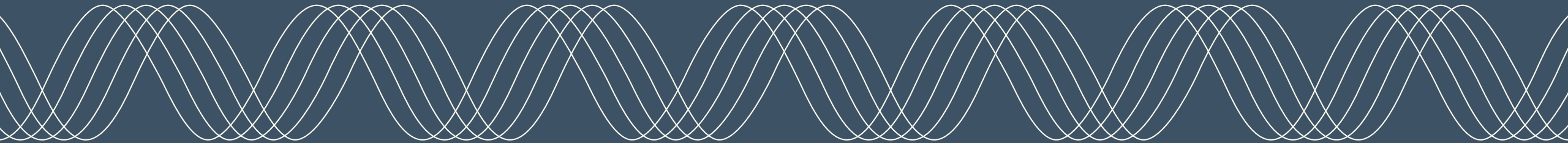


Portfolios



Community Benefit Indicators & CBREs

Next Steps & Closing Remarks



Next Steps and Closing Remarks



[Share your feedback with us](#)



Please share your thoughts with us via our survey



Our next CEP Learning Lab will be on **Wed Dec 14 from 10a-12p**



Future Learning Labs will be informed by previous ones



In 2023, meetings will be every third Thursday of the month



For more information or if you have questions, please email us at CEP@pgn.com



**Let's
meet the
future
together.**

