CEP – Community Learning Lab # 6

February 16, 2023





Agenda

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

10:10 – 11:25 am: CEP Emissions Compliance, Action Plan & Preferred Portfolio

11:25 – 11:45 am: Reflections of Community Engagement

11:45 – 12:00 pm: CBRE Acquisition Path

12:00 -12:20 pm: Community Benefit Indicators Update

12:20 – 12:25 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 of information presented in previous meetings & how community feedback has been considered
- Share timelines & next steps

Meeting Logistics


Audio


Microphone


Chat box


Video


Raise Hand


Closed Caption

Operating Agreements

Establishing norms with our communities is foundational to building trust

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

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

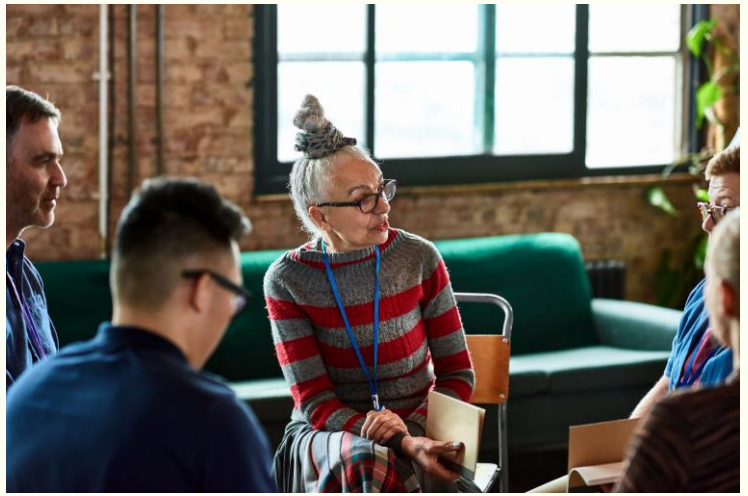
Stay Engaged

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

Clean Energy Plan
Emissions Compliance, Action Plan & Preferred Portfolio

Presenter: Kristen Sheeran, Ph.D., Director of Sustainability & Resource Planning

CEP Community Learning Lab # 6, February 16, 2023

PGE at a Glance

Quick Facts

Vertically integrated electric utility

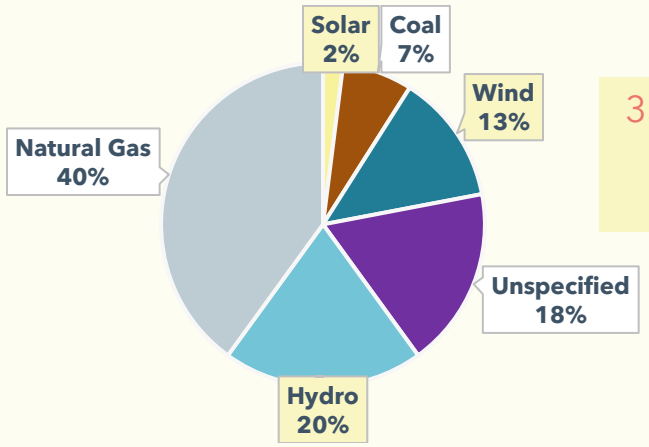
- Generation
- Transmission
- Distribution

~ 900K retail customers (2 million residents)

~ 75% state's commercial & industrial

~ 50% state's pop. (51 incorp. cities)

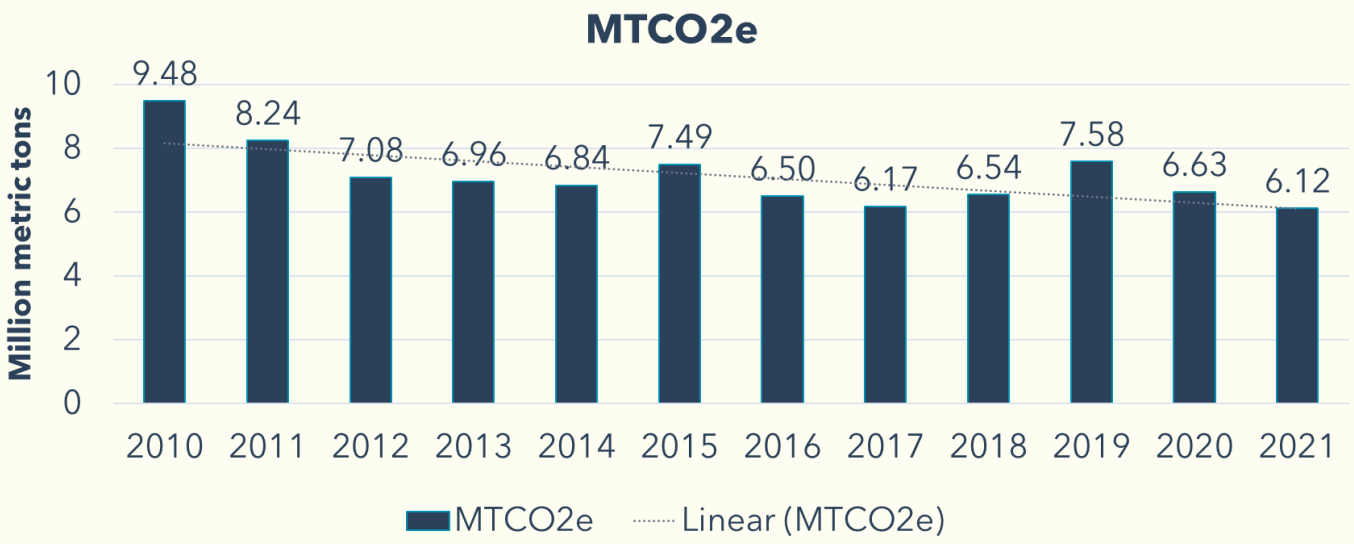
2021 Resource Mix



35% of power served to customers came from non-emitting energy resources

3,300+ MWs of Generation

PGE's Annually Reported Emissions to DEQ*



*Anthropogenic emissions from power generated and purchased to serve Oregon retail customers.

Emissions Targets

HB 2021 Requirements

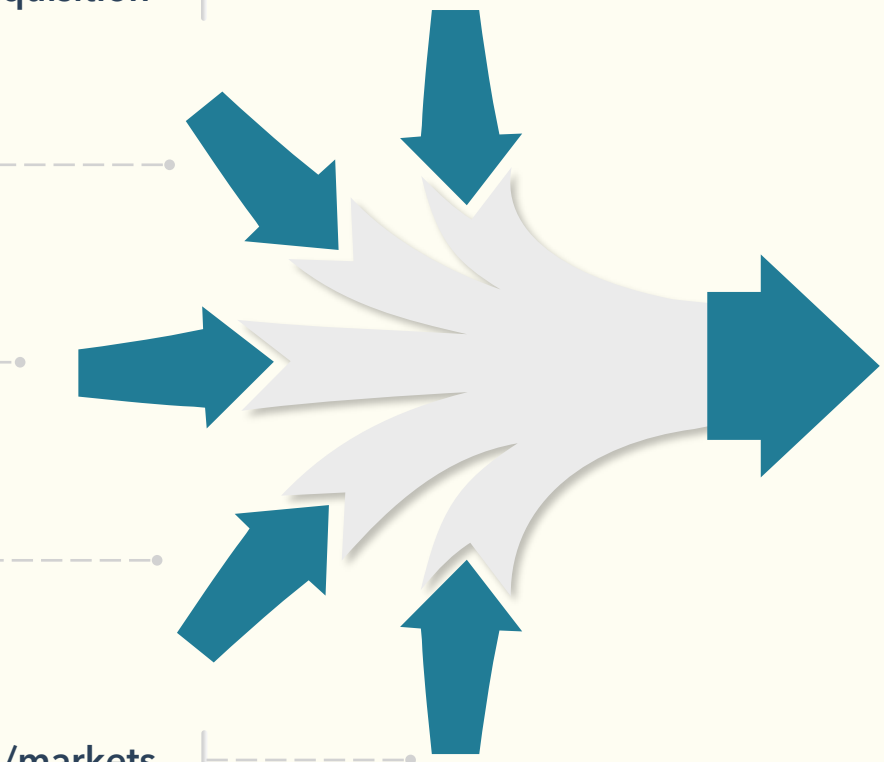
	MMTCO2e	Reduction
Baseline	8.1	per DEQ
2030 Target	8.1 to 1.62	80%
2035 Target	1.62 to 0.81	90%
2040 Target	0.81 to 0	100%

Path to 2030 Strategy

Our decarbonization strategy is multi-faceted to support reliable and affordable power

Enabling Strategies

- Clean energy acquisition
- Customer-sited solutions
- Technology & innovation
- Transmission solutions
- Regional collaboration/markets



GHG Reductions

1. Gradually reduce fossil fuel generation/purchase for retail service

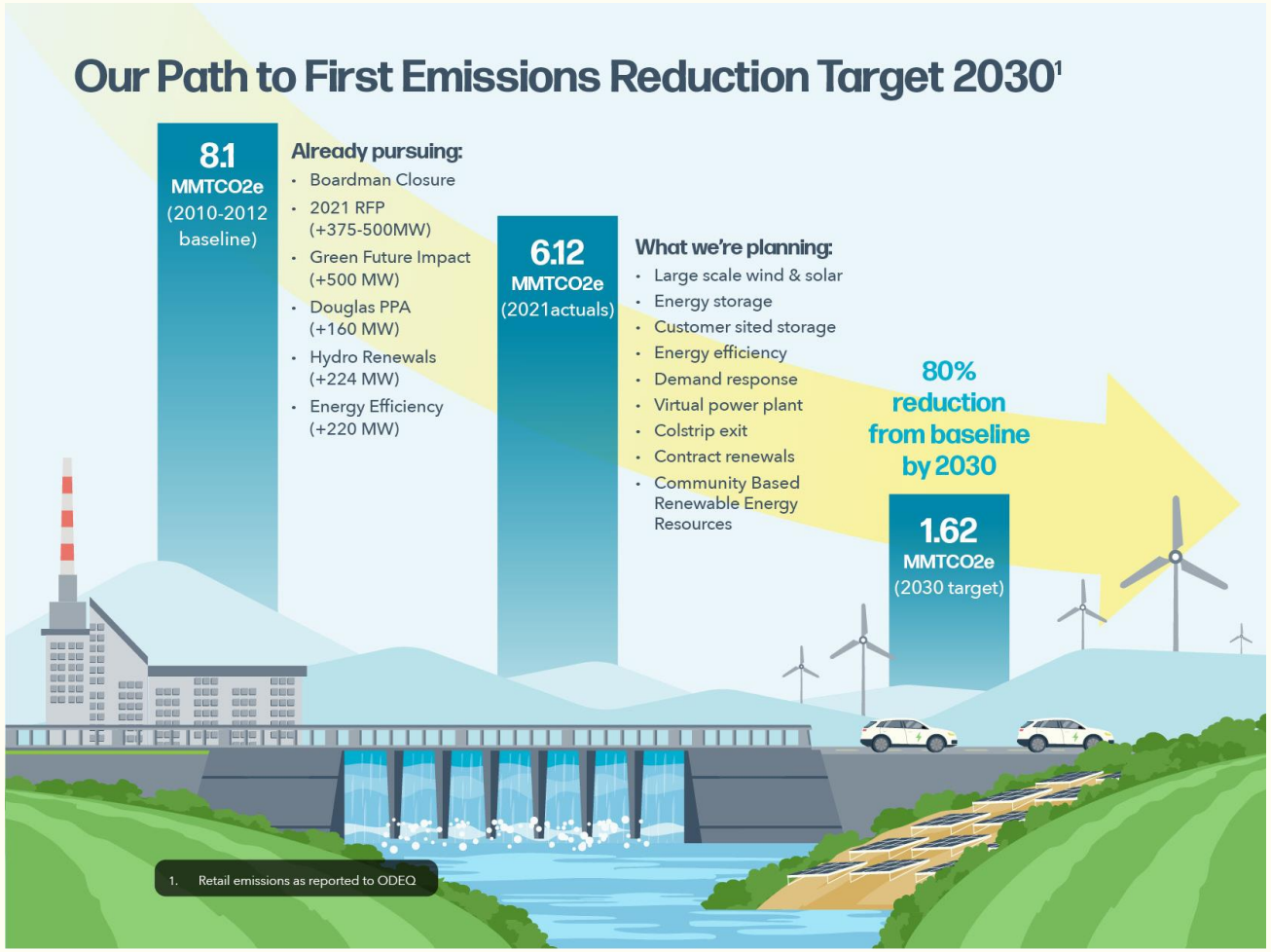
   Thermal plants increasingly managed for resource adequacy, reliability

2. Replace fossil fuels with non-emitting energy & capacity resources (i.e., wind, solar & energy storage)

3. Actively work with customers to manage their energy wallet, maintain affordability

Clean Energy Transition

Advancing toward a clean energy future



PGE has taken significant steps to decarbonize its system

2021 emissions 24% below HB 2021 baseline levels

2022 decarbonization data coming soon with the release of PGE's Environmental, Social and Governance (ESG) report in March 2023

Our decarbonization strategy is multi-faceted to support reliable & affordable power

- Clean energy
- Customer-sited solutions
- Technology and innovation
- Regional solutions to resource adequacy

Clean Energy Transition – Recent Examples

Important steps to serve our customers

Accelerating non-emitting resource acquisition (>3,000 MW) at an unprecedented rate while managing customer costs

Clearwater Wind Facility

- 208 MW to be owned by PGE & 103 MW to be through a power purchase agreement with NextEra
- PGE investment of $438M qualifies for 100% Production Tax Credits
- Project-in-service date planned for December 31, 2023

Faraday Hydro Facility

- Rebuild of over 100-year-old non-emitting hydro facility
- Lake fill completed and Unit 6 returned to service January 2023

Clean Energy Plan & Integrated Resource Plan

HB 2021 requires a Clean Energy Plan (CEP) which builds off, expands on, and modifies the robust resource planning PGE is required to do for its Integrated Resource Plan (IRP)

IRP

- **Forecasts system energy & capacity needs**
- **Optimizes a preferred portfolio**
- **Concludes with short-term Action Plan, the basis for next RFP**

+

CEP

- **Details PGE's plans to meet emissions targets & demonstrate continuous progress**
- **Calls for extensive community engagement**
- **Encourages inclusion of community benefits in meaningful way**

→

CEP & IRP (combined)

- **Filing March 2023**
- **Multiple rounds of public comment and review**
- **Acknowledgement anticipated by December 2023**

PGE's CEP & IRP must **balance affordability, reliability & decarbonization**

Integrated Resource Plan (IRP)

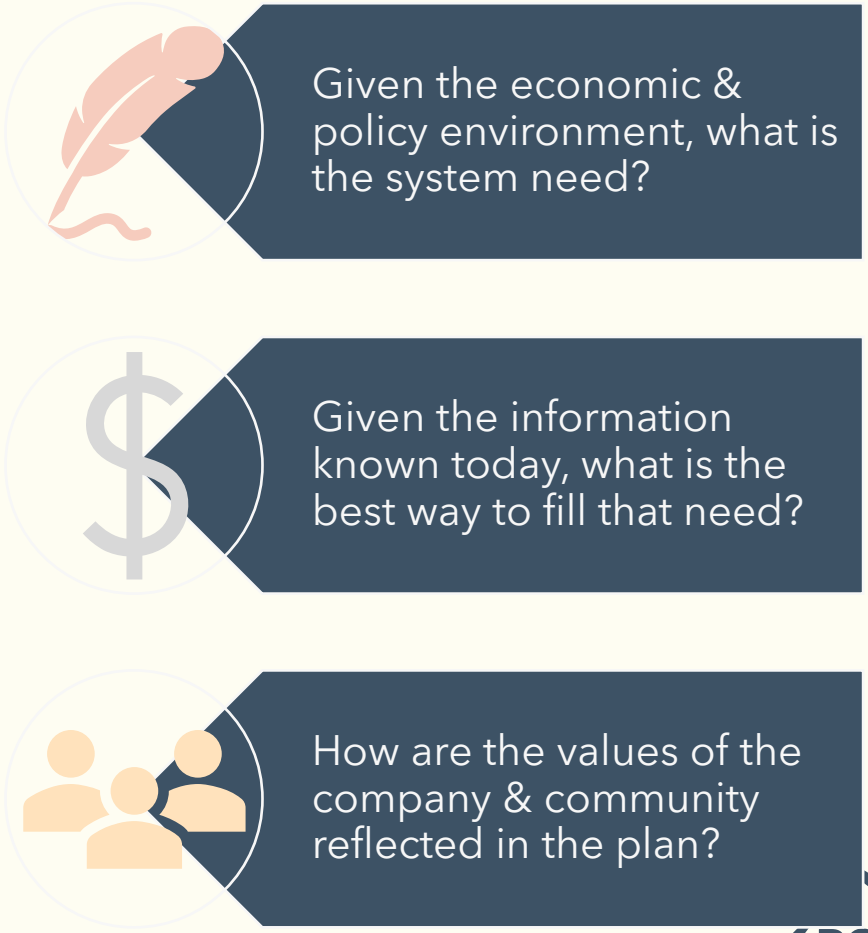
The IRP's goal is to *credibly* and *transparently* achieve two main objectives

1. Estimate system resource need

- Forecast long-term demand growth
- Project generation from existing and contracted assets

2. Propose a pathway to fill that need

- Evaluate resource options
- Determine the optimal size & timing of resource additions



What makes something a “good” resource?

Capacity factor

Location
(geographic variability, access to transmission)

Grid value
including resilience

Community benefits

Portfolio contribution

Cost

Key Inputs, Estimated System & Action Plan

1. Linear decline in emissions serving retail load from 2026-2030; 2030-2040
2. PGE thermal plants remain available to meet capacity needs through 2039
3. Economic dispatch of thermal plants for wholesale market
   No limits on wholesale emissions
4. Path to 2030 can be achieved with known and commercially available resources
5. Insufficient transmission capacity on- and off-system to support acquisition of new resources and load growth
6. Regional development of new non-emitting technologies is needed to meet 2040 emissions targets

Capacity need

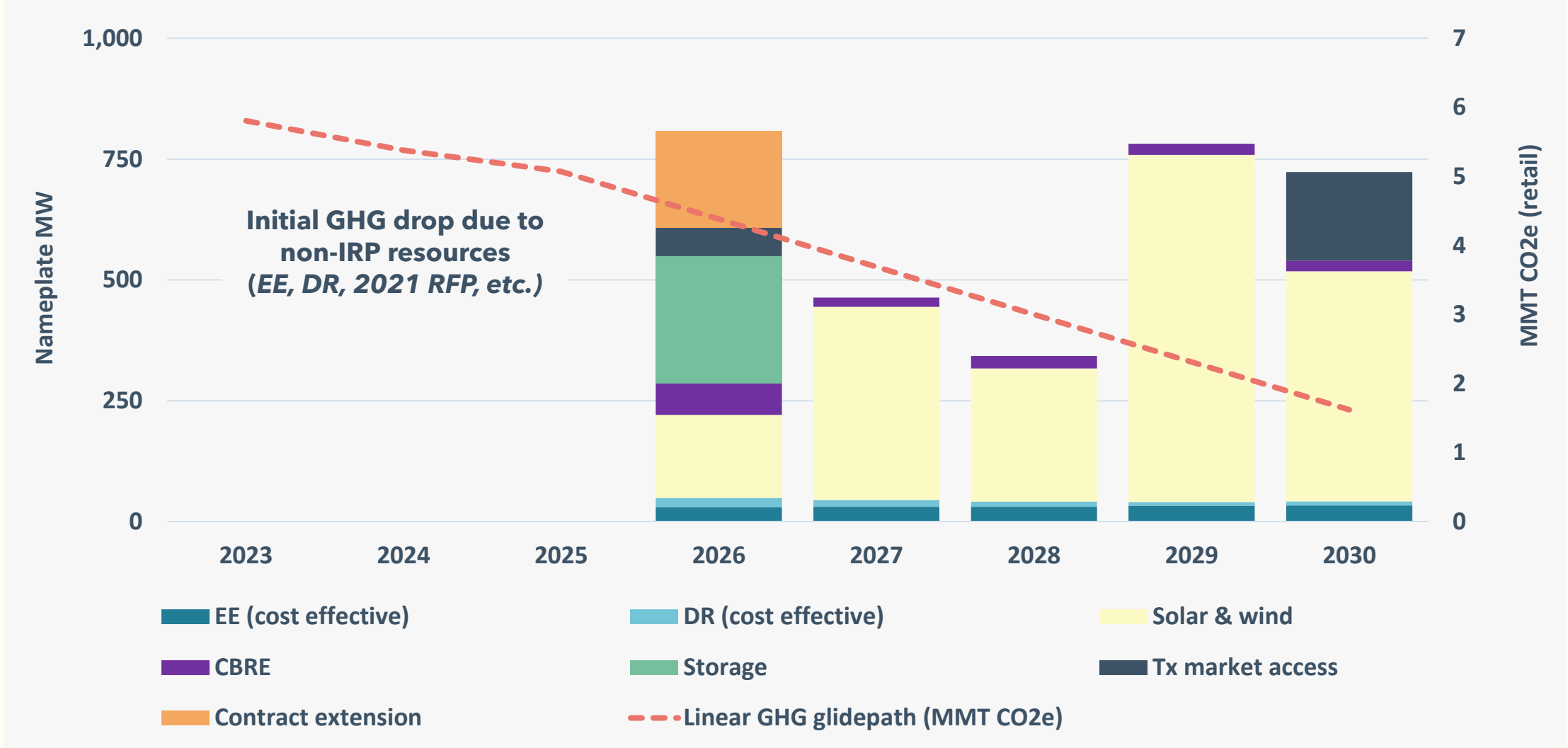
by 2026:
- 506 MW summer
- 429 MW winter

by 2030:
- *872 MWa*
- *~2500 MW*

Action Plan Elements

1. Customer sited solutions: energy efficiency & demand response
2. Community-based renewable energy procurement
3. Renewable energy procurement
4. Non-emitting capacity procurement
5. Transmission options

Resource Acquisition Path to 2030 - DRAFT



Conclusion

UM 2225 has generated **thorough guidelines** for PGE's inaugural combined CEP & IRP filing.

To meet our emissions reduction targets, we will need to **add resources at an unprecedented pace and scale**.

We will likely be in a ***near-continuous procurement cycle*** going forward.

2030 emissions reduction targets can be met by technologies and resources that are **currently known and commercially available**.

PGE engaged in **robust planning**, analysis, stakeholder & community engagement to meet future energy & capacity needs while **balancing affordability and the reliability of the grid**.

We anticipate that **transmission constraints** will drive a **greater role for customer-sited resources** such as demand response, energy efficiency, and distributed solar/storage in this IRP/CEP compared to year's past.

It also underscores the ***need for both on- and off-system transmission solutions***.

Pathways to 2040 will require **further development of non-emitting resources** to meet the region's energy and capacity needs.

Questions & Comments

Reflections on CEP Engagement

Presenter: Samantha Thompson, Energy Equity Partner, Distribution Resource Planning

CEP Community Learning Lab # 6, February 16, 2023

CEP – Engagement Retrospective

Our strategy below outlines the implementation of our plan for community engagement across PGE's long term planning processes which is informed by three goals:

1. 

   Cultivate & maintain trusted & transparent relationships with community-based organizations (CBOs)/community serving organizations (CSOs), environmental justice (EJ) advocates & other individuals

2. 

   Build awareness, inform & provide learning opportunities to communities

3. 

   Collect feedback & evaluate progress

CEP – Engagement Retrospective

1

Cultivate and maintain trusted and transparent relationships with community-based organizations (CBOs)/community serving organizations (CSOs), environmental justice (EJ) advocates and other individuals

- Met with eight organizations and/or individuals since January 2023
- Explored collaboration and partnerships with new organizations (e.g., roadshow Learning Labs and Mural exercises, translated Mural from English to Spanish, and collected additional feedback)

CEP – Engagement Retrospective

2

Build awareness, inform and provide learning opportunities to communities

- Created a non-technical venue (Learning Labs) – conducted six two-hour workshops
- Established a dedicated CEP website and mailbox
- Published archived meeting materials and information on website
- Accessibility (e.g., enabled close caption, utilized Zoom, Mural, and translated documents into Spanish)

CEP & IRP – Engagement

External Public Meetings	# Meetings		
	Total as of Feb. 2023	Remaining until filing	Total
CEP Learning Lab	6	1	7
IRP Roundtable*	27	2	29

* IRP Roundtables started on March 2020

CEP Website screen-sample

Previous CEP meetings

Here you will find all information we've shared during the CEP proceedings – past meeting presentations, video recordings, supplemental materials and our final Clean Energy Plan report.

2022 CEP Community Learning Labs

Dec. 14, 2022 CEP Learning Lab 22-4

Agenda (full video 1 & video 2, ppt)

- Previous Clean Energy Plan (CEP) Learning Lab # 3 Recap (video, ppt)
- PGE's Approach to Community Benefit Indicators (CBIs) (video, ppt)
- Community Benefits Indicators (CBIs), **iCBI, rCBI, pCBI** in the IRP Modeling (video, ppt)
- Resilience Update & Potential Resilience Products (video, ppt)
- Previous Integrated Resource Planning (IRP) November Roundtable Recap(video, ppt)
- Next Steps & Closing Remarks (video, ppt)
- Learning Lab # 4 Survey

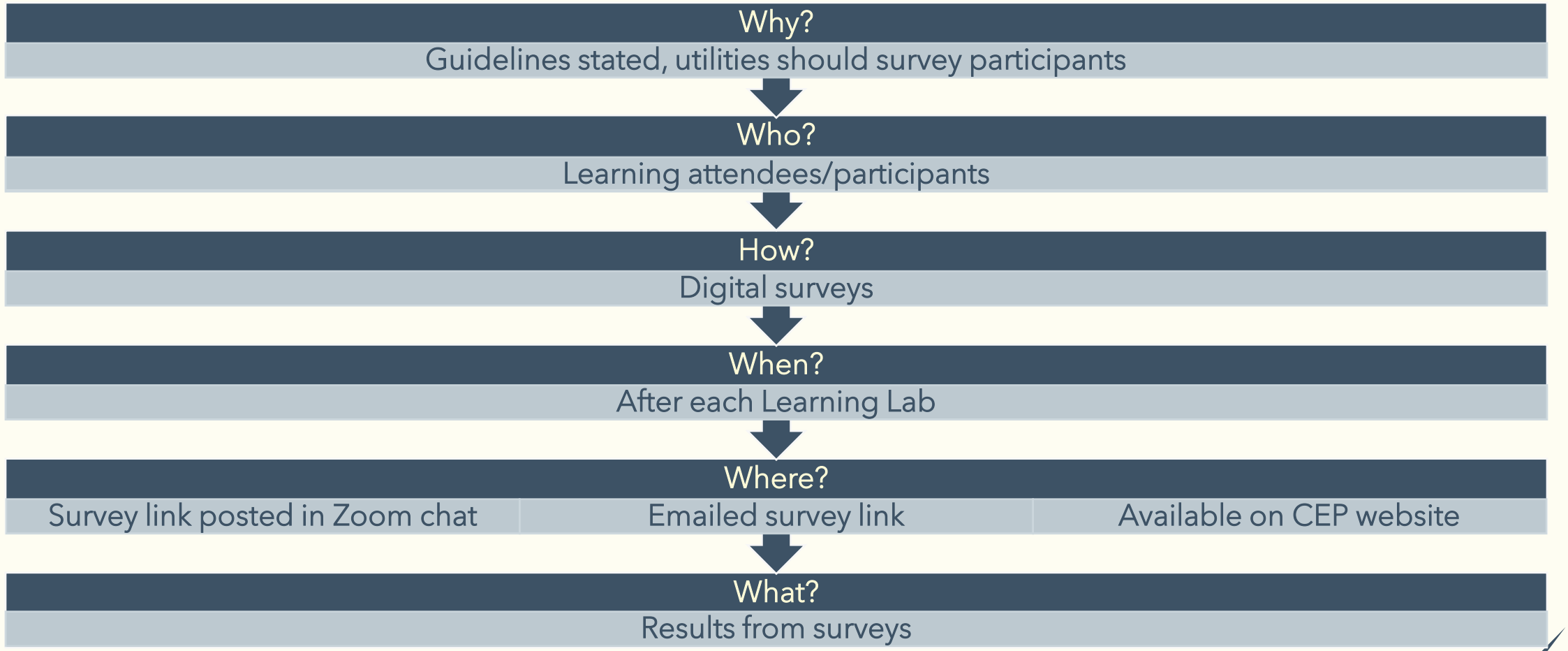
CEP – Engagement Retrospective

3

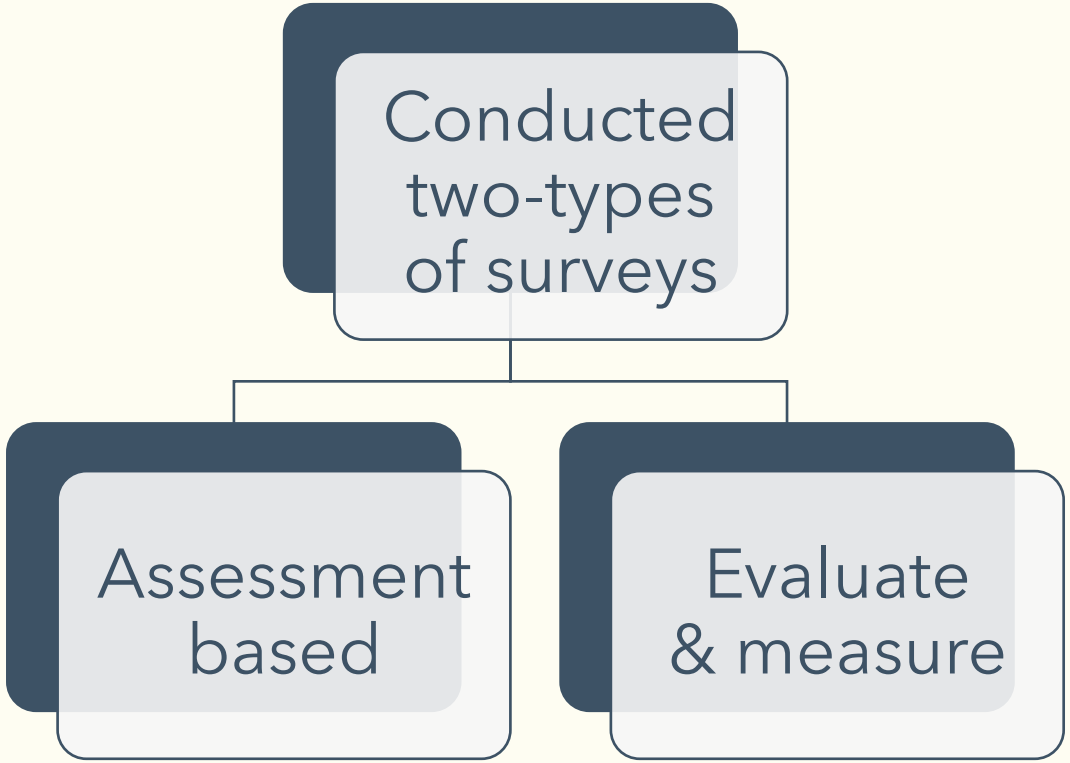
Collect feedback & evaluate progress

- Mural exercises
- Surveys
- Online feedback form
- Informal interviews

Survey Process Map



Survey Types



Survey Results to Evaluate & Measure

Questions	1 strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree
The objectives of the presentation were clearly stated & met	3.8
The presentation was well-organized & easy to follow	4.3
The information presented was relevant & useful	4.0
The content presented increased my knowledge of topic(s)	3.5

Metrics that Community recommended PGE using to understand & analyze Resilience & "Zone of Tolerance"

Mural board data themes

- Presence of community services
- Housing stability metrics
- Demographics
  - elders
  - children
  - medical need
  - income
  - affected by extreme weather
  - renters' vs owners
  - urban vs rural
  - individual household's vs community)
- Distribution system investments by EJ Communities
- Electrification programs
- Housing stock characteristics
- Access to back up power & transportation
- Heat island effect

PGE's Next Steps on Resilience & Zone of Tolerance

PGE is evaluating community recommended metrics & to add to **energy equity matrix**
Currently energy equity matrix has six indicators

- Percentage average energy burden of income below 200% federal poverty line (FPL)
- Percentage of renters (housing status)
- Percentage of people of color (race)
- Percentage of multiple family and manufactured homes (housing type)
- Percentage of without internet
- Percentage of disability

PGE will use community feedback to identify **vulnerable communities** in its service area

PGE will continue using **heating island effect study** to locate the affected areas

Community thinking on Resilience Community Microgrid Hubs – Community Needs

Mural board themes

How would a microgrid benefit your community?

- Run medical equipment, communications
- Limit resource loss (i.e., food & meds)
- Increase energy reliability
- Access to power during major event outage
- Create jobs

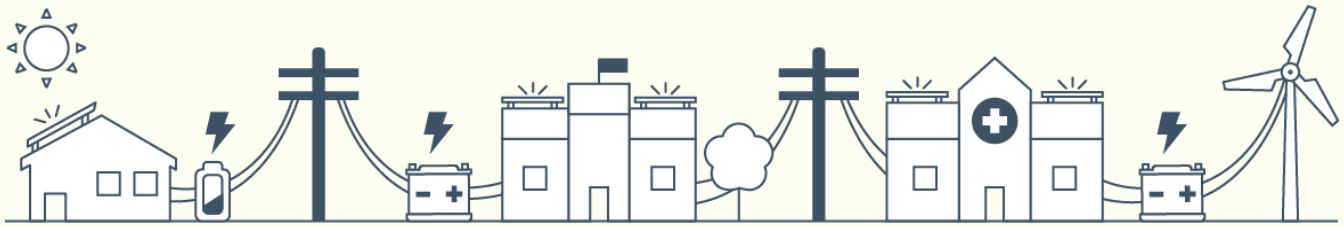
What critical facilities to power with microgrid?

- Hospitals & elder care homes
- Facilities working as emergency shelters (i.e., community centers, schools, libraries)
- Community resources and services providers (i.e., supply centers, grocery stores)

Microgrid Siting

- Close to vulnerable communities
- Located in friendly to all community members

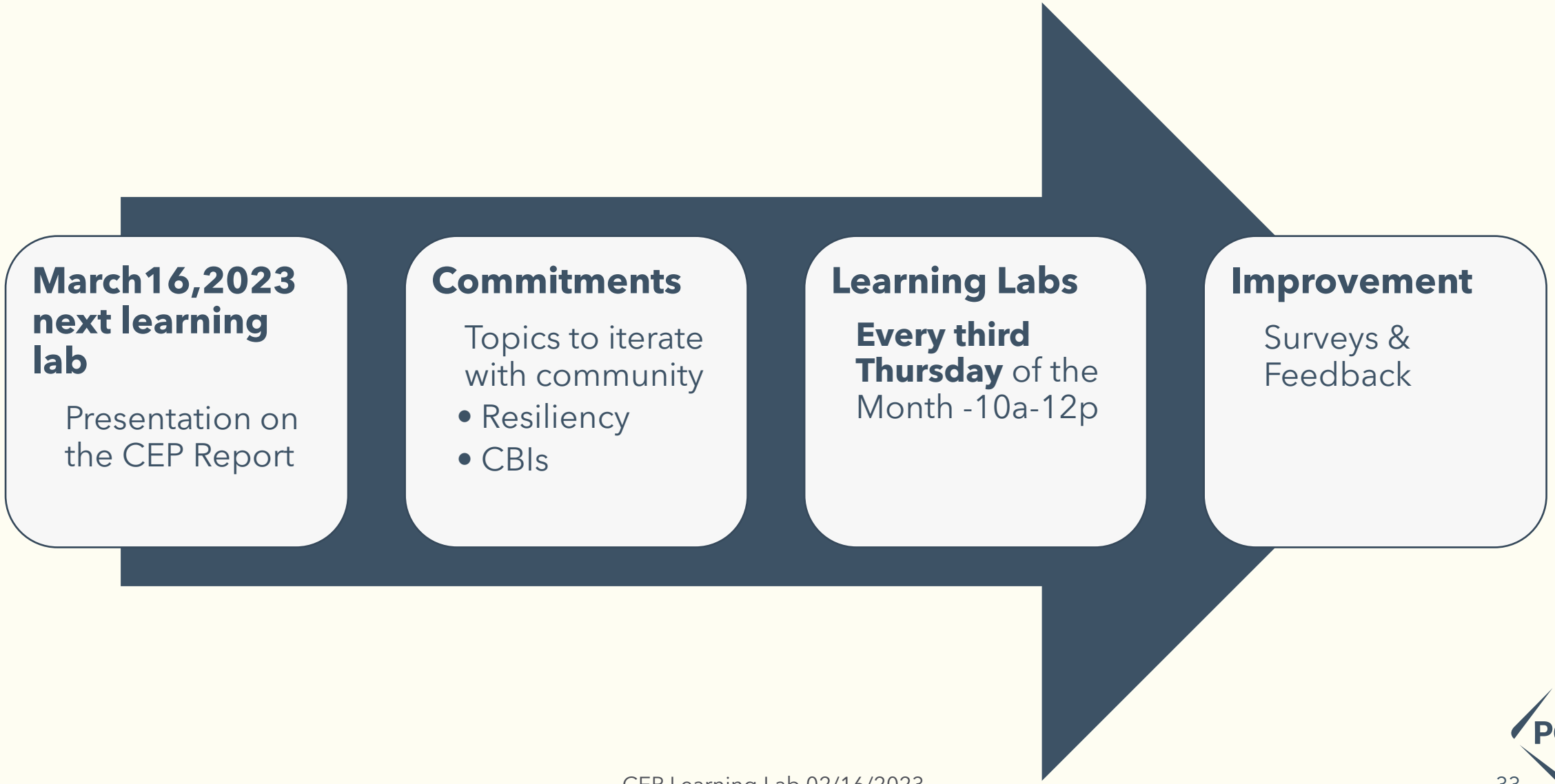
PGE's Next Steps on Potential Resilience Products



If PGE would execute on this potential resilience product – Resilience Community Microgrid Hubs

PGE will use the input received from community to start the product development process, including more working sessions with community

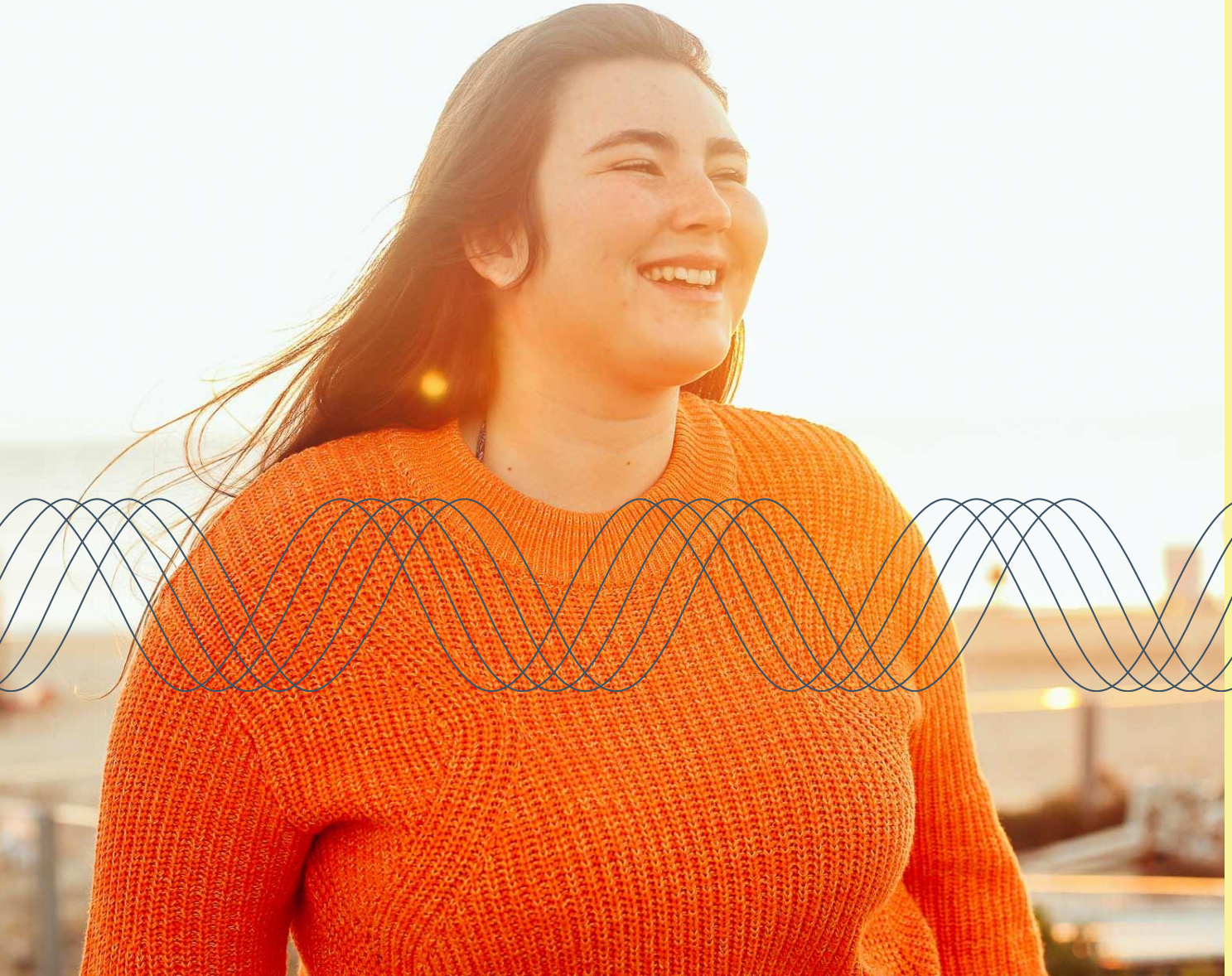
Next Steps


March16,2023 next learning lab
Presentation on the CEP Report
Commitments
Topics to iterate with community
• Resiliency
• CBIs
Learning Labs
Every third Thursday of the Month -10a-12p
Improvement
Surveys & Feedback

CBRE RFP

Shiraz Bengali, Senior Energy Supply Procurement Originator, Renewable Initiatives

February 16, 2023, CEP Community Learning Lab # 6



Objective:

RFP alignment with feedback

Next step in RFP process

RFP as part of the potential portfolio of acquisition options

	Wholesale solar + storage	Other non-emitting resources	Community resilience hubs	Oregon Community Solar Program	Rooftop solar	Rooftop solar + energy storage
Definition	Non-greenfield solar development at price bid into competitive solicitation	Dispatchable & non-emitting resources	Building level resiliency – meets VPP flex load need – aligned with capacity need of community sites Typically, solar + storage	3 MW green tariff; energy compensation mimics net energy metering	Solar offsets building load & exports energy to grid	Storage shifts generation + provides building resiliency
	Otherwise not served by programs Up to 20 MW				Utilizes net energy metering	
Procurement approach	Potential CBRE RFP		Potential program	State mandated, capped program	Market driven with incentives	Residential pilot + Energy Partner
Community Benefit potential	Workforce development			Bill savings		
	Improving grid in vulnerable communities		Community access hub during outages Critical facility resilience	Workforce development (community projects)	Asset investment	
						Building-level resilience

RFP structure would complement other acquisition processes for CBRE resources

- CBRE RFP will target up to 66 MW
- PGE is proposing an RFP for wholesale projects that qualify as CBRE.
- Through an RFP, communities can inform how projects should be prioritized.
- Developers can propose a variety of potential CBIs and ownership structures.
- This approach is nimble: if solicitation response is minimal, the RFP can be closed, modified, and re-issued.

- Specific resources and/or CBIs can be directed through tariffed programs.
- Existing programs – such as community solar, rooftop solar, and the residential battery pilot – provide CBRE resources.
  These programs contribute to CBRE delivery.
- PGE will continue to work with communities to develop programs that meet specific resource preferences.

How an RFP aligns with feedback we've heard

Ability for communities & PGE to co-develop scoring criteria, which is how an RFP process differentiates and, ultimately, selects projects to acquire.

Wholesale CBREs could support a subset of CBIs, such as

- workforce development
- flexible project ownership structures
- grid resiliency
- additional CBIs can be proposed as part of the bid process

How is PGE planning on using feedback?

Community RFP

Questions & Comments

Community Benefit Indicators (CBIs) Update

Presenter: Andy Eiden, Principal Strategy and Planning Analyst, Strategic Program Planning

CEP Community Learning Lab # 6, February 16, 2023

Top Four CBIs Prioritized by Community

Community Benefit Indicators

Non-energy

- Reduction in number of customers suffering from high energy burden
- Meaningful bilateral engagement between utilities and tribes
- Low income & vulnerable communities have access to an increasing number of renewable or non-emitting distributed generation resources

Energy

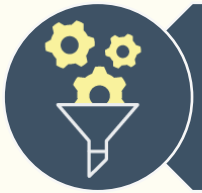
Improve efficiency of housing stock in utility service territory, including low-income housing

How is PGE planning on using this feedback

Design & implement interim CBIs leveraging Attachment A of CEP guidelines & identified through engagements efforts

Continue these conversations through Community Learning Labs

PGE reviewed existing literature for identified CBIs & will share details on findings for Reduction of Energy Burden & Weatherization



Evolve & change the work over the next few years
Analyze these community benefits & consider ways to incorporate them in resource optimization process

iCBIs for Metrics & Tracking

Improved Access to Reliable, Clean Energy

CBI 1: Improve participation in clean energy programs by EJ communities

Metric	Description
Metric 1A: Distributed energy resource (DER) program participation rates for EJ communities	Rate of improvement in customer participation in customer programs (DR, solar/storage, EE, CBRE) compared to baseline
Metric 1B: Allocation of budget and/or savings goal within DER programs for EJ communities	Increase in share of budget and/or savings goal in customer programs (DR, solar/storage, EE, CBRE) compared to baseline

Draft indicators and metrics – subject to change

Reduction of Energy Burden

CBI 2: Increase energy affordability for target communities

Metric	Description
Metric 2A: Customers experiencing electricity bill burden	Reduction in electricity bill burden over time for low-income and EJ communities compared to baseline
Metric 2B: Customer arrearages for customers in EJ communities	Reduction in number of customers in arrearages in EJ communities compared to baseline
Metric 2C: Number of customer disconnections for non-payment in EJ communities	Reduction in number of customer disconnections for non-payment in EJ communities compared to baseline

Draft indicators and metrics – subject to change

Improved Grid Resiliency

CBI 3: Improved grid resiliency

Metric	Description
Metric 3A: Frequency and duration of outages, including long-duration outages	Reduce frequency and duration of outages for EJ communities
Metric 3B: % of customers with access to emergency power in EJ communities	Improve access to emergency backup power across customers; Increase number of customers in EJ communities with access to emergency backup power

Draft indicators and metrics – subject to change

Jobs and Economic Impact

CBI 4: Increased access to jobs/economic impact

Metric	Description
Metric 4A: # of clean energy jobs related to CBRE goals and % held by members of EJ communities	Increase number of clean energy jobs through future CBRE program and procurement activities
Metric 4B: Support workforce training opportunities for EJ communities	Participate in diverse workforce development initiatives

Draft indicators and metrics – subject to change

Environmental Outcomes

CBI 5: Environment

Metric	Description
Metric 5A: Reduced GHG emissions	Reductions in annual GHG emissions to serve retail load

Draft indicators and metrics – subject to change

Improved Efficiency of Housing Stock

CBI 6: Improve efficiency of housing stock in utility service territory, including low-income housing

Metric	Description
Metric 6A: Amount of residential energy efficiency achieved in target communities	Increase efficiency of housing stock in residential sector, including low-income housing, through increased coordination with Energy Trust and other local and state market actors
Metric 6B: Work w/ OHCS, CAAs, Energy Trust and other weatherization/EE implementors to encourage equitable distribution of benefits from EE programs in PGE service area	Participate in working groups to support effective and equitable distribution of weatherization and EE benefits

Draft indicators and metrics – subject to change

Next Steps

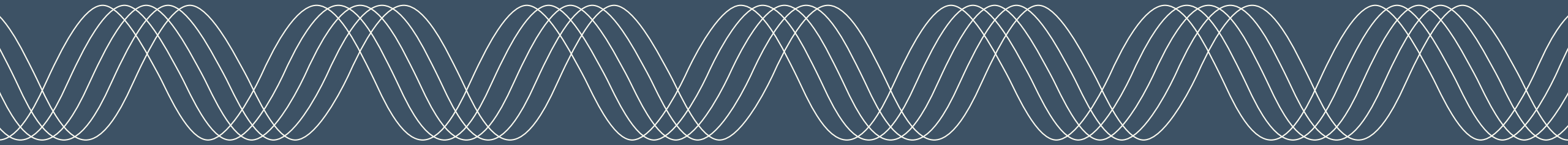
Develop quantitative tracking metrics based on the preferred portfolio & action plan

Iterate with community partners to reflect CBIs in program & procurement scoring metrics

Engage with the CBIAG & continue sharing our approach in Community Learning labs to gather feedback

Questions & Comments

Next Steps & Closing Remarks



Next Steps and Closing Remarks

Please share your feedback via our survey

Next CEP Learning Lab will be **Thursday, March 16 from 10:00am – 12:00pm**

Please visit our new CEP website at Clean Energy Planning (CEP) | Portland General Electric

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

Let's meet the future together.

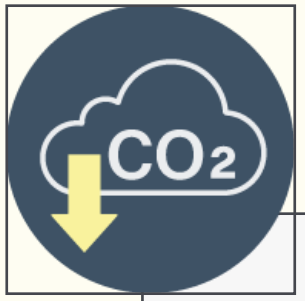
Acronym Key

Acronym	
IRP	Integrated Resource Plan
CBIAG	Community Benefits and Impacts Advisory Group
CEP	Clean Energy Plan
IRP	Integrated Resource Plan
DSP	Distribution System Plan
NWS	Non-wires Solution
CBRE	Community Based Renewable Energy
CBI	Community Benefit Indicator
iCBI	Informational CBI
rCBI	Resource CBI
pCBI	Portfolio CBI
RFP	Request for Proposal
CBO	Community Based Organizations
CSO	Community Service Organizations

Appendix

Community Feedback on CBREs

Community Feedback – CBRE



Considerations

- Give a higher priority to CBREs that:
  - Solve for resilience
  - Reduce GHG emissions
- Clean energy should not displace the carbon sequestration benefits of vegetated (natural resource) land, or displace farmland nor potential local food nor timber land

Community Feedback – CBRE

Funding

- Align with other agencies working in similar issues (i.e., **ODOE Community Renewable Energy Grant** program), understand which projects have been identified & *prioritize procurement of those projects*
- Consider innovative community aligned financing / funding models. Perhaps utility financed models
- Consider filling "gaps" in policy--where federal/state dollars are directed at a problem, find the opportunities that do not have that financial support
- Consider "Stacking" the value of these resources when they support multiple objectives & policy requirements

Community Feedback – CBRE

Benefits

- What role can utility play in helping get CBREs off the ground? With a special focus on those with high impact for EJ communities, like high resiliency value, high community wealth building value, tribal community investment, etc.

- Low income & BIPOC ownership of CBRE
- How do these resources support BIPOC/LI wealth building & align with other non-energy policies / goals

- The RFP should move through the neighborhood or rural community planning organizations, so it is community oriented
- Community involvement would allow a higher sense on responsibility such as on conservation

Community Feedback – CBRE

Concerns

- RFP could favor companies with capital over community-focused enterprises
- Utility will consider these community assets to be too expensive, rather than valuing the benefits they bring to community
  - How can the utility address this bias?