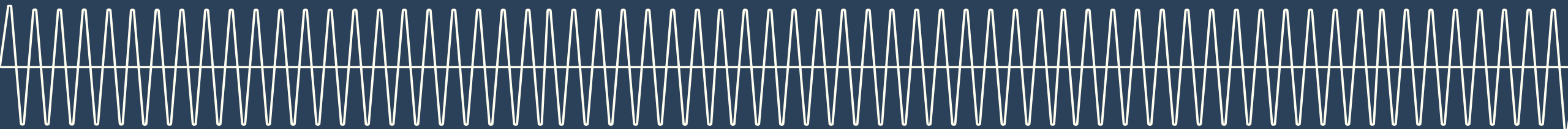


# PGE Distribution System Plan Partners Monthly Workshop # 14

**April 27, 2022**



# Waiting Room

One moment please, while we wait for people to join

Song by artist:

[Not our First Goat Rodeo - Yo Yo Ma | Stuart Duncan | Edgar Meyer | Chris Thile--- Nebbia](#)

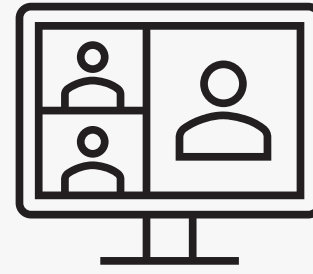
Please use the QR code to check-in:  
[Name and Organization](#)



# Meeting Logistics

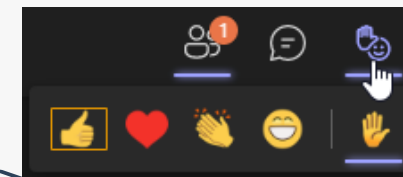
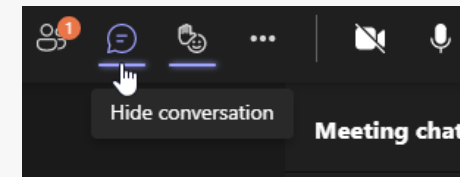
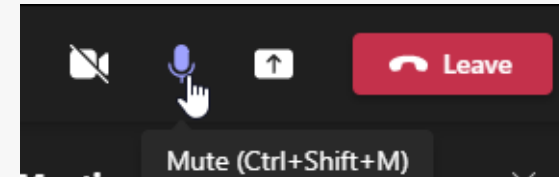
## Teams Meeting

- Please click the meeting link sent to your email or [Click here to join the meeting](#)
  - +1 971-277-2317 (dial this number into your phone for best results)
  - PW: 885 018 032#
- Please use **Microsoft Edge** or **Google Chrome** with Teams as it will give you the best experience



## During the presentation:

- All attendees will be muted; to unmute yourself via computer, click on the microphone that appears on the screen when you move your mouse
- To unmute yourself over the phone, **press \*6**
- If you call in using your phone in addition to joining via the online link, please make sure to **mute your computer audio**
- Use the chat feature to share your comments and questions.
- Raise your hand icon to let us know you have a question



# Quick Updates!

Please visit us at [www.portlandgeneral.com/dsp](http://www.portlandgeneral.com/dsp)

You can email us at: [DSP@pgn.com](mailto:DSP@pgn.com)

[Online Feedback Form](#)

DSP Mailing list: [Sign-up form](#) / [Opt-out form](#)

## Important dates in 2022:

- OPUC DSP-Part 2 Working Group dates
  - **Thursdays May 19, June 16 (1-4 pm)**
- PGE DSP Partner Meetings
  - **Wednesdays Jun 8, July 13, Aug 3 (9 am - 12 pm)**
- PGE DSP Community Workshops
  - **Wednesday May 4, May 25 (9 -11 am)**
- DSP Part 2 filing date
  - **Monday, Aug 15**

# Agenda

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9:00 – 9:15 am – **Opening Remarks** (15 min)

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9:15 – 9:35 am – **Distributed Energy Resources (DERs) & Water Heater Example** (20 min)

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9:35– 10:35 am – **DER Forecast – AdopDER Preliminary Updated Results** (60 min)

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10:35 – 10:45 am – Break (10 min)

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10:45 -11:20 am – **Reporting Lessons Learned from Community Workshops** (35 min)

---

11:20 -11:55 am – **Clean Energy Plan Update** (35 min)

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11:55 am – 12:00 pm – **Next Steps** (5 min)

---

# Operating Agreements

Establishing norms with our communities is foundational to building trust.

To create a **safe space**, we establish **common agreements** such as **respect** and **inclusivity**.

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

**Stay Engaged**

**Experience Discomfort**

**Speak your Truth**  
**(knowing it's only part of the truth)**

**Expect and Accept Non-closure**

**Share the Airtime. Step up, Step back.**



[The courageous conversations framework](#)  
By Glenn Singleton and Curtis Linton



# Distributed Energy Resources (DERs) & Water Heater Example

**Binh Lu**, Product Development, Senior Product Developer



# OBJECTIVE

Provide some basic education on water heater and demand response

Receive feedback on the proposed Smart Water Heater design





# SUMMARY: Smart Water Heater

## *Timing is right for grid-integrated water heater*

Recent legislation dictates connected water heaters in the marketplace, and PGE can apply our experiences in:

- Multifamily Water Heater integration,
- demonstration activities in the Smart Grid Testbed, and
- regional expertise to accelerate growth of energy efficiency and flexible load.

## Current Status:

- In development and proposal will be filed in PGE's Multiyear Plan (August 2022)
- Stakeholder engagement on pilot design

## Customer Need:

- Manage energy costs associated with Water Heating (2nd largest energy use in home)
- Overcome first costs (50% of Americans cannot afford a \$1,000 emergency<sup>1</sup>)
- Desire to be more sustainable (60% of residential PGE customers feel PGE offers clean energy options that meets their needs<sup>2</sup>)

## Estimated Impact:

- ~2,700 enrolled water heater annually
- ~0.35 MW - 1.2 MW annual flexible load potential
- **NOTE:** Numbers do not include enrollment from new construction segment and do not include heat pump water heaters w/mixing valves.

<sup>1</sup>Over Half of Americans Have Less Than 3 Months Worth of Savings by: Francisco Velasquez

<sup>2</sup>PGE Q4 2021 Customer Value Proposition and Brand Index research



# WATER HEATERS 101

	Electric Resistance Water Heaters (ERWHs)	Heat Pump Water Heaters (HPWHs)
<b>How does water get heated?</b>	Uses electric resistance elements	Uses heat pump technology.  Transfers heat from indoor air or exhaust airstreams to heat the water and produces cool, dry air as a by-product. Electric resistance elements are often included as a backup
<b>General market notes</b>	<ul style="list-style-type: none"> <li>• Mostly installed in existing home replacement situations</li> <li>• <b><i>More affordable</i></b> water heater solution but is <b><i>less efficient</i></b></li> </ul>	<ul style="list-style-type: none"> <li>• Mostly installed in new construction situations               <ul style="list-style-type: none"> <li>• Builders use HPWHs to meet code requirements and ETO's Energy Performance Scoring (EPS) rebates</li> </ul> </li> <li>• <b><i>Less affordable</i></b> water heater solution but is <b><i>more efficient</i></b></li> <li>• Best installed in garages or non-conditioned spaces due to the heat pump technology</li> </ul>
<b>Estimated avg. planned value load shift (per unit for 3 hours)</b>	Winter: 0.3 kW  Summer: 0.3 kW	Winter: 0.2 kW  Summer: 0.1 kW
<b>Avg. equipment &amp; installation costs</b>	50 gallons: \$1,300 - \$1,900 65 gallons: \$1,400 - \$2,000	50 gallons: \$2,200 - \$3,300 65 gallons: \$2,900 - \$3,900
<b>ENERGY STAR certification</b>	No	Yes
<b>Energy Trust of Oregon energy efficiency incentives available</b>	No	Yes (up to \$500)

# SINGLE FAMILY FLEXIBLE LOAD PROGRAMS



## Residential

### Behavioral

#### Peak Time Rebates (PTR):

Customers receive day ahead and day of notifications for events and are asked to shift their electrical energy use outside event hours

### Direct Load Control

#### Smart Thermostats:

PGE adjusts T-stat between 1-3 degrees during events

#### Electric Vehicle (EV) Chargers:

PGE stops charging EVs during events

### FUTURE

#### Smart Water Heater (SWH):

PGE adjust water heating to times when demand is low or high renewables generation.

Controls ensure hot water is available for participants

### Other

#### Time of Day (TOD):

Residential rate that incentivizes customers to shift their energy use toward off-peak hours

# SMART WATER HEATER PILOT DESIGN DECISIONS RECAP

Focus on replacement and new water heaters  
**not** retrofitting existing water heaters

Will allow grid-enabled heat pump water  
heaters **and** electric resistance water heaters  
participate in the pilot

# CUSTOMER JOURNEY DISCUSSION

## Objectives:

Avoid stranded grid-enabled water heaters

### Enrolled Customers

- Limited to customers that installed a grid-enabled (CTA-2045) water heater via a PGE associated installer will be automatically enrolled
- Installer must install a universal communications module (UCM) and confirm the LTE connection

### Enrolled Customers, Event Opt-Outs

- Specific dates

### Enrolled Customers, Pilot Opt-Outs

- Full pilot participation for that address

**NOTE:** *If home ownership is transferred, previously connected water heaters will be automatically enrolled the new homeowner into the pilot.*

### Non-Enrolled Customers

- Purchase and install a non-grid-enabled water heater.
- Used an installer that is not associated with PGE or install it yourself
- Decline the UCM installation

# Next Steps

Please contact Binh Lu, [binh.lu@pgn.com](mailto:binh.lu@pgn.com)

With feedback, and/or if interested in participating  
in design process

1

Incorporate  
today's  
feedback.

2

Hosting flexible  
load ad hoc  
session in May.

3

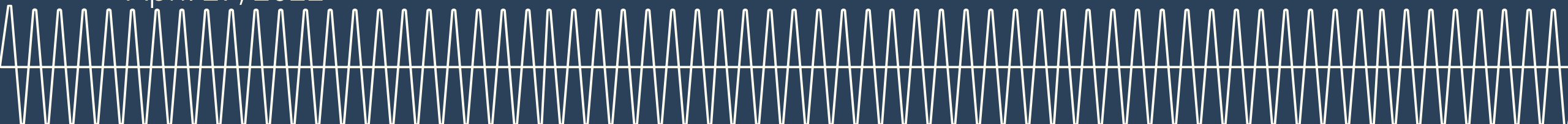
Return to provide  
design updates in  
June DSP meeting.



# DER Forecast – AdopDER Preliminary Updated Results

**Andy Eiden**, *he/him*, Distributed Resource Planning,  
Principal Planning & Strategy Analyst

April 27, 2022



# Objective

Review updated results from March 2022 refresh for the IRP

Update on progress for the disaggregated DER forecast for DSP Part II

Discuss format for providing granular DER forecast results for DSP Part II

Discuss equity data sets and process for including into DER potential study

# Past DER Forecast presentations

## IRP Roundtable

- December 10, 2020 - IRP Roundtable 20-8, presentation on DER forecasting study overview ([slides 15-30](#))
- August 25, 2021 - IRP Roundtable 21-7 ([slides 7-70](#))

## DSP Partner Monthly Meetings

- February 10, 2021 - DER Potential & Flex Load Assessment 101 ([slides 31-45](#) & [video](#))
- March 10, 2021 - DER and Flexible Load Study ([slides](#) & [video](#))
- April 14, 2021 - DER Potential & Flex Load Analysis - Phase 1 ([slides 12 -21](#) & [video](#))
- May 12, 2021 - DER Forecast: Final Draft Results ([slides 34-54](#) & [video](#))
- Jan 13, 2022 - DER Forecast Updates ([slides 41- 61](#) & [video](#))
- Mar 10, 2022 - AdopDER Model Overview - OPUC TWG ([slides](#))

# DER and Flex Load Study with DSP Part I

Reminder full report with detailed methodology and findings available on PGE DSP website

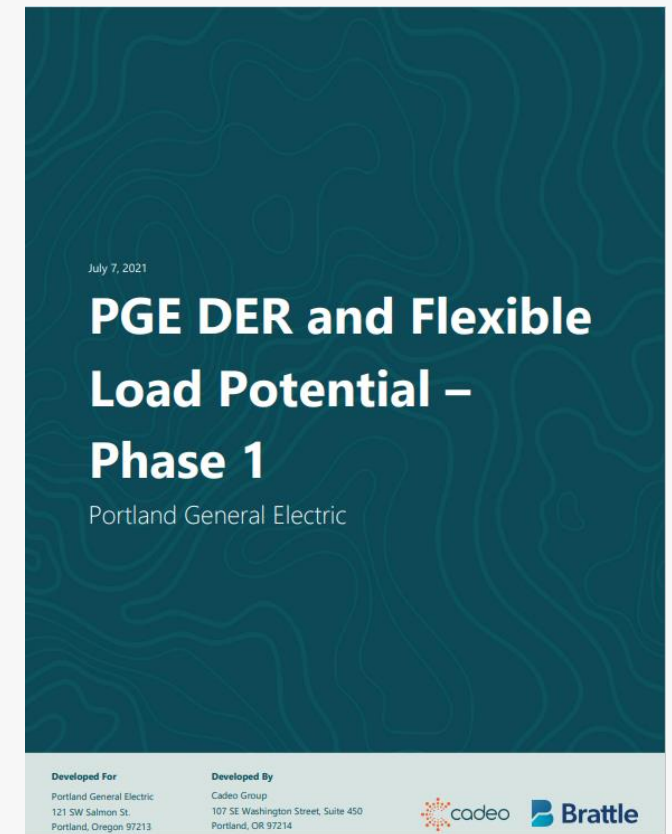
- Cadeo and Brattle led the study development
- National expertise in flexible load modeling and resource assessments

Study covers forecast of the following distributed energy resources (DERs)

- Demand response / flex loads
- Distributed rooftop PV
- Distributed battery storage
- Electric vehicles and charging needs

Full study available online as Appendix G to the DSP Part I, available at:

<https://portlandgeneral.com/about/who-we-are/resource-planning/distribution-system-planning>



# This study informs DER adoption for PGE DSP

Cadeo developed AdopDER model in 2020-2021 to simulate the load impacts from the co-adoption of 40+ distributed energy resources in PGE service area between 2021 and 2050

Examples



## Two project phases

### Phase 1

- **Service territory** technical, economic, achievable potential study for PGE IRP
- Measure feasibility varies by customer
- Adoption probability varies by DER and time, but not by premise

### Phase 2

- **Locational** technical, economic, achievable potential
- Measure feasibility varies by customer
- Adoption probability varies by DER, time, and premise

**We are here**

# Updates made since last model run

Updated new solar adoption - 2021 net metering was highest year ever

Updated with new DMV registration data

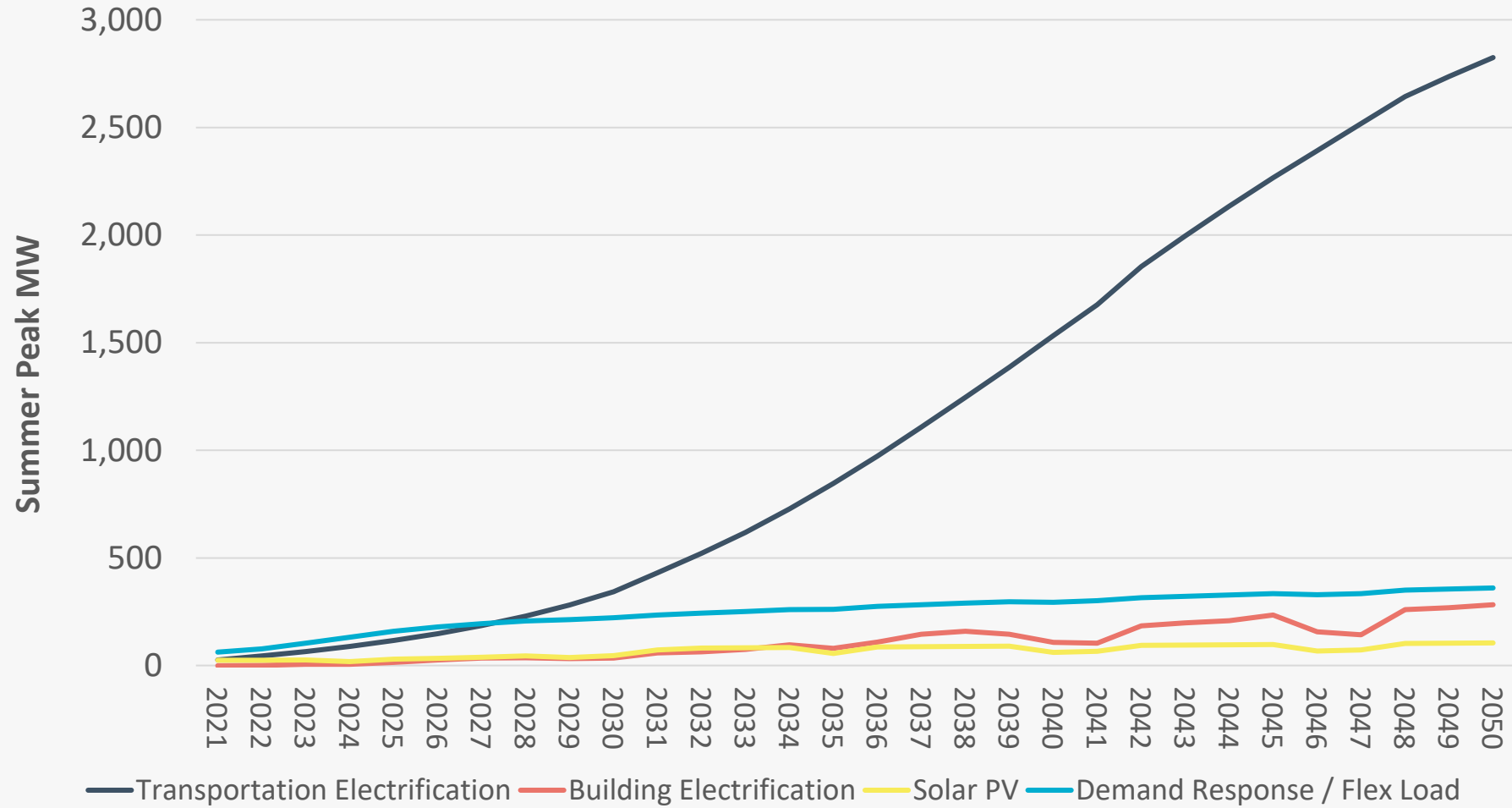
Added impacts of Oregon's adoption of CA Advanced Clean Trucks Rule

Added new programs and measures to the Flex Load / DR potential model

Made refinements to dGen methods with NREL support



# Long-run DER Forecast (2021-2050)

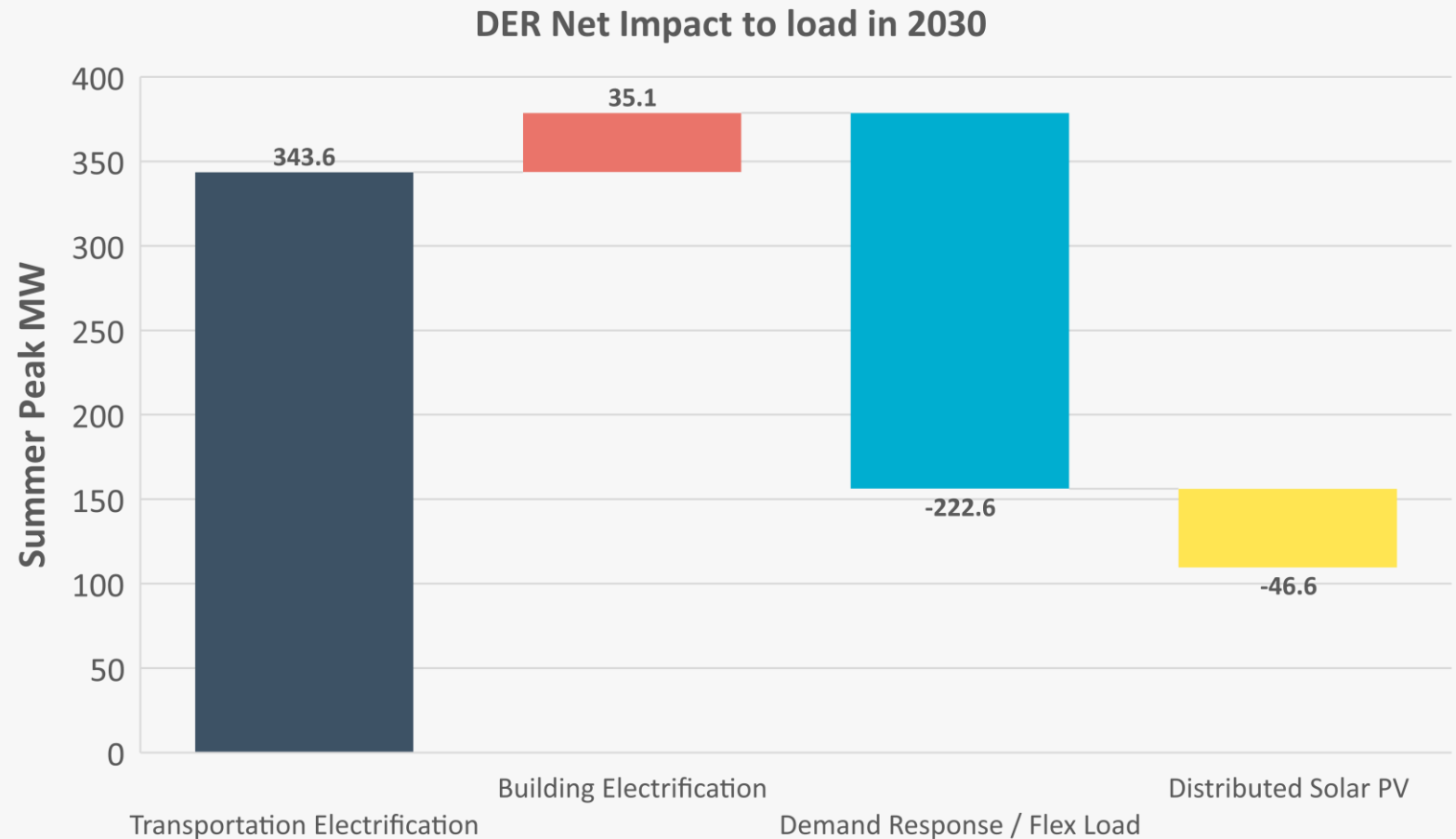


# DER net system peak impacts in 2030

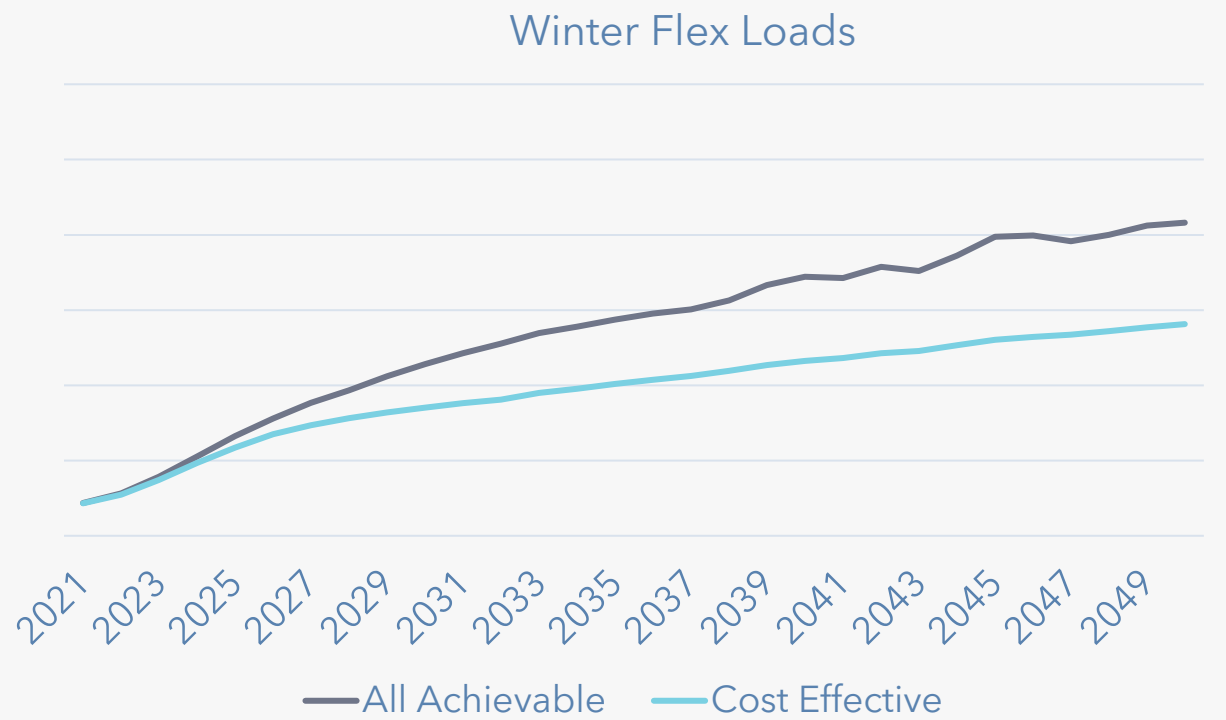
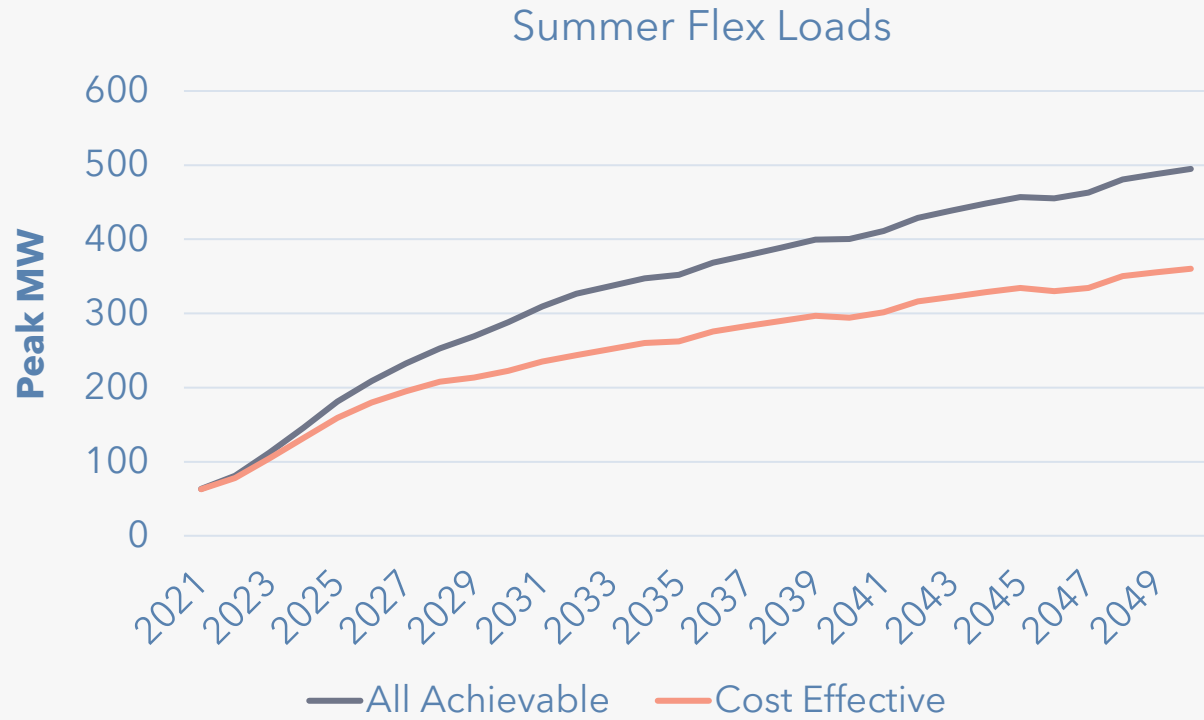
DER impacts come in multiple forms

- Load growth
- Load shift (e.g., DR, pricing)
- Distributed generation

By 2030, flexible loads + solar PV offsets significant summer peak MW from TE



# Flexible Loads – Achievable potential



# Locational Adoption Results



# Hourly gross and net load impacts

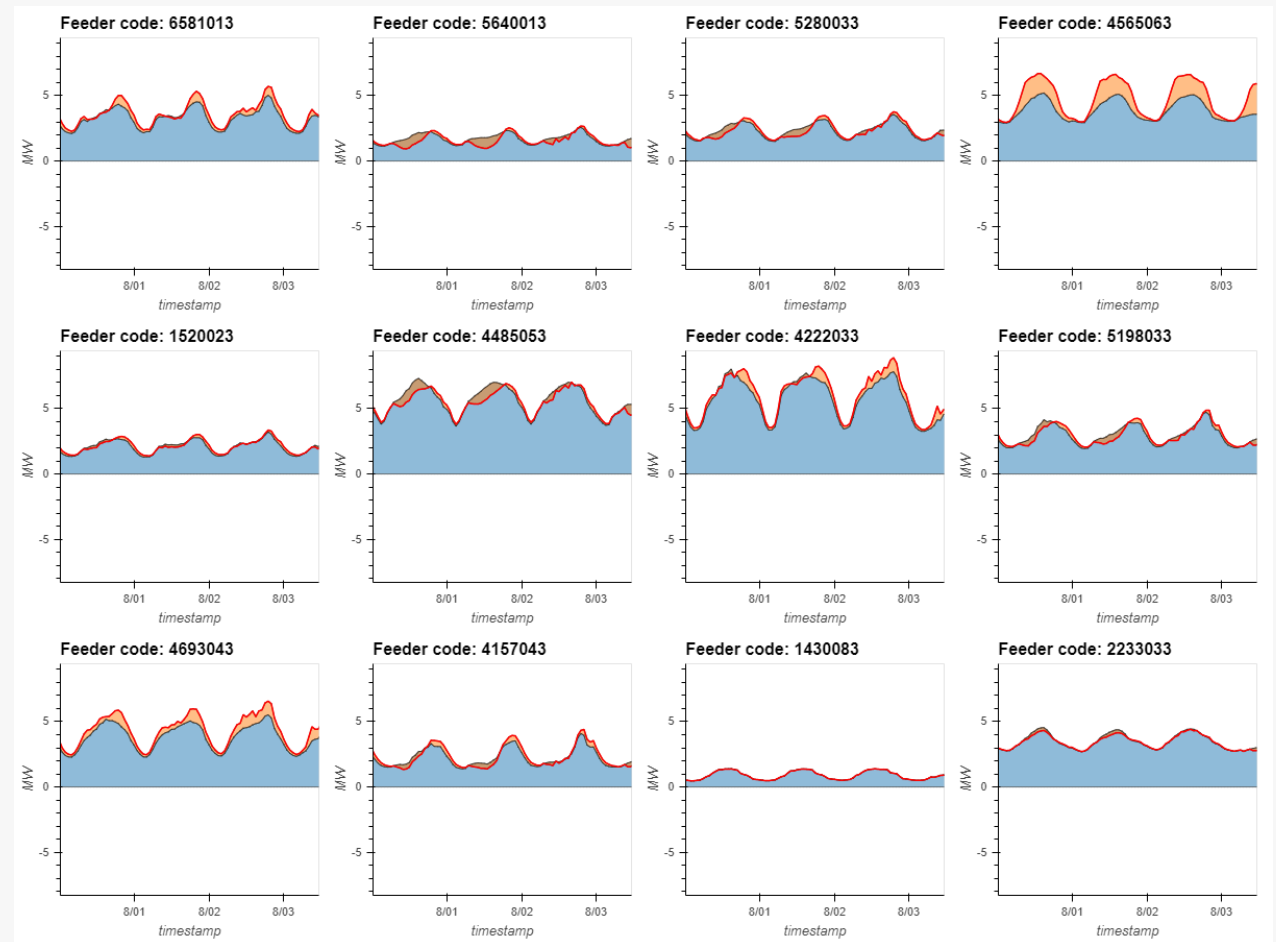
Sampled 2019 AMI data to develop feeder-level profiles

- 10% Sch 7 and Sch 32
- Full sample for Sch 83 up

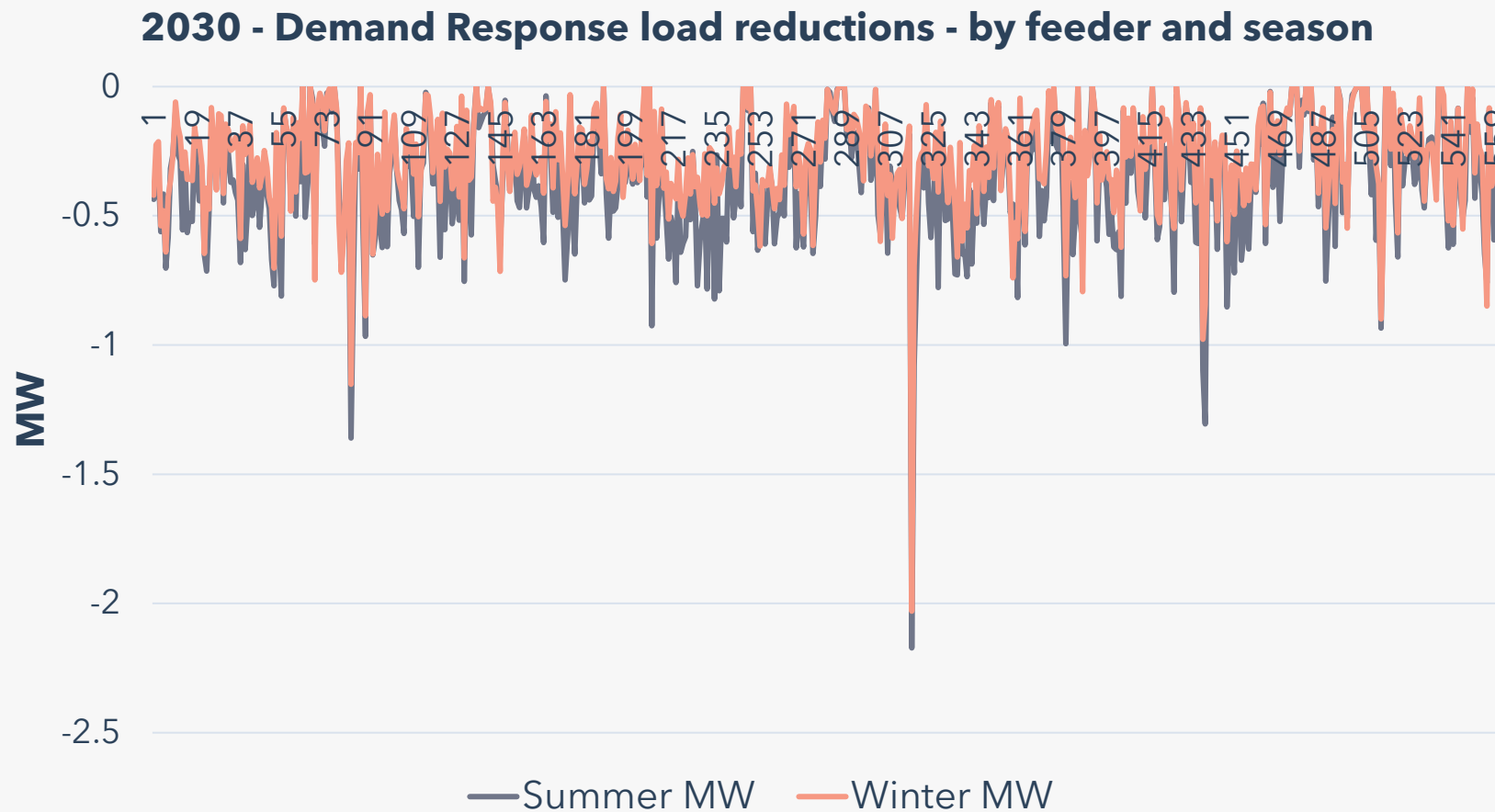
Estimated gross and net load for all feeders using weather-normalized forecasts

Normalized for the existing solar PV penetration from existing interconnection report and reconstituted gross load profile

New forecasts allow visibility to hourly trends as more DERs come onto system



# Feeder-Level DR Adoption Summary



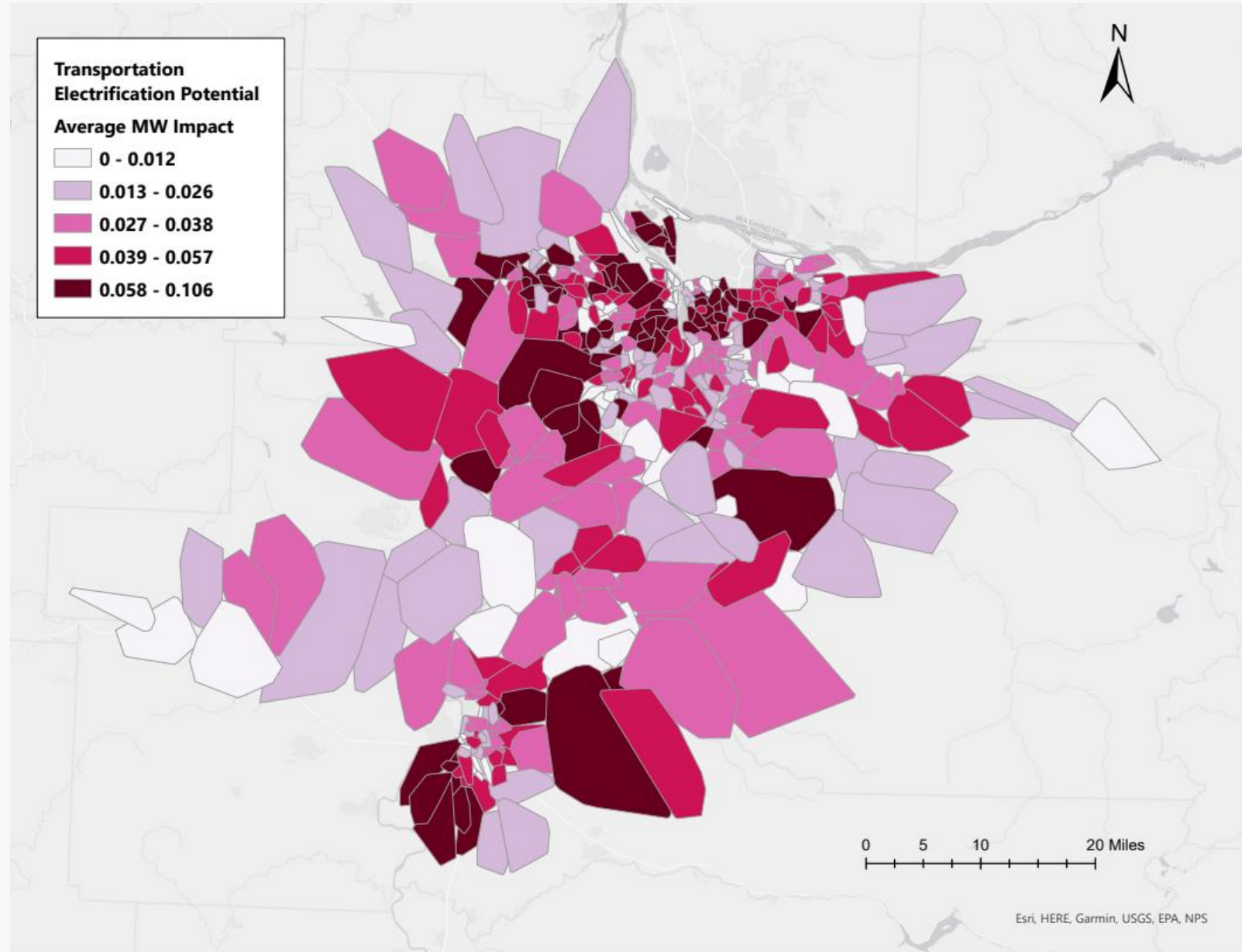


# TE Potential

Exploring various ways to integrate other DER types with the DER Readiness Map layers

Data is still being reviewed and analyzed for disaggregated adoption results

Will present updated figures and maps in future meetings



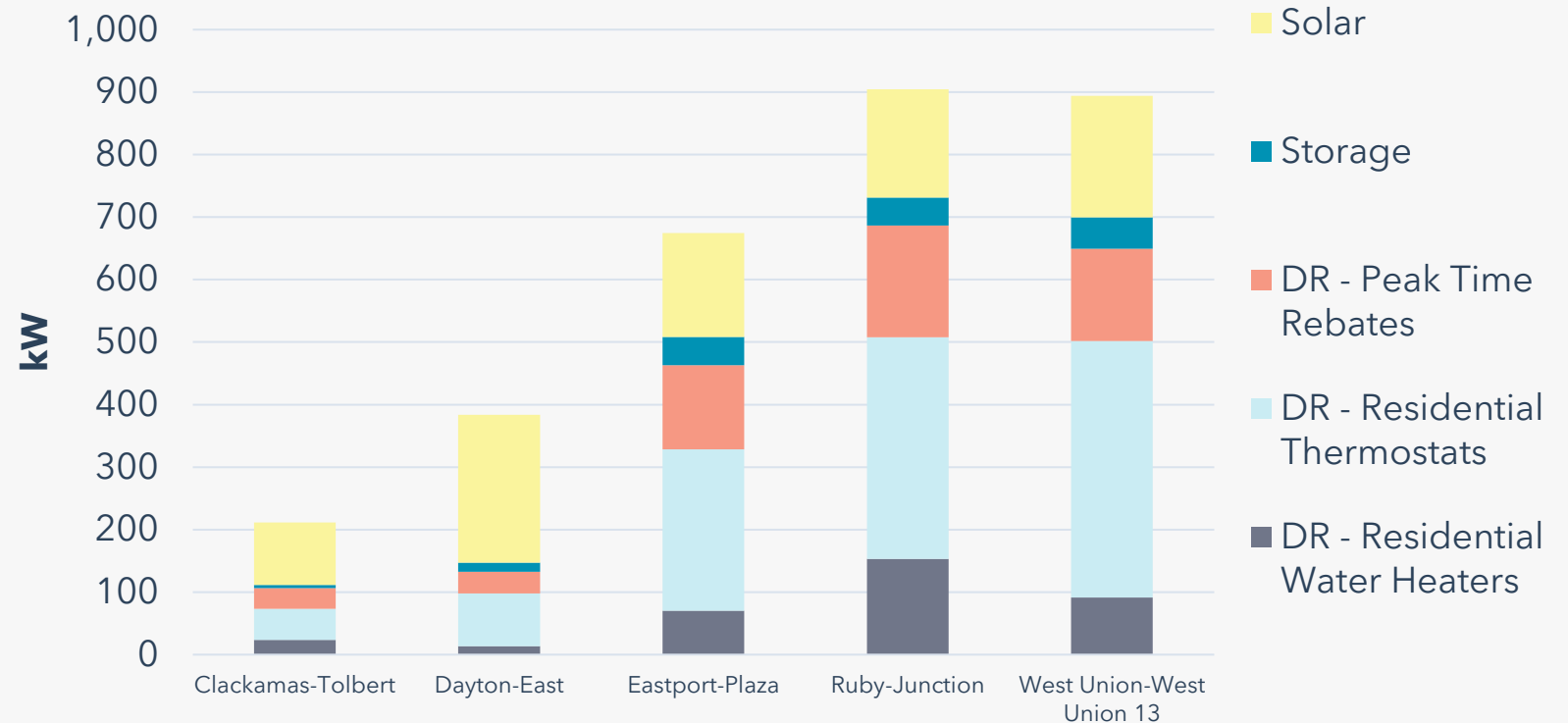
# Using AdopDER for Non-wire solutions

For DSP Part II we are assessing the DER potential to meet distribution grid needs

AdopDER informs the base case potential of DR, solar, and storage for mitigating load growth

Results used in conjunction with PGE customer programs and Energy Trust / external partners to develop NWS targets

**2025 Summer kW peak impacts - base case adoption in NWS pilot areas**



# Incorporating Equity Data Research

**Inputs:**

Customer  
Data

Demographic  
Data

Environmental  
data

Resiliency  
Data

**Process:**

Review data reliability & quality

Identify correlation between  
variables and select  
independent variables

Develop draft indices

Incorporate  
stakeholder  
feedback

**Output:**

Final variables and indices  
for incorporation into  
AdopDER

# Review of EJ Metrics and Data Sources

## Demographic variables

Variable	Data Source
Racial Composition	ACS
Homeownership	ACS
Households with Above Average, High, or Severe Energy	DOE LEAD
Education	ACS
PGE Pmt/Service Flag	PGE
Poverty level	ACS
Tribal Communities	ACS
Rural Communities	RUCA
Frontier Communities	ACS
Coastal Communities	ACS
Housing Type	ACS
Households with High Living Costs	ACS
Lack of Internet Access	ACS
Income Stress	ACS
Utility Burden	ACS
English Proficiency	ACS
Householder's Age	ACS
Health Insurance Stress	CDC 500 Cities
Eviction Rate	Princeton Eviction La
Electricity Burden	ACS
Gas Burden	ACS
Water Burden	ACS
Asthma	CDC 500 Cities

## Environmental variables

Variable	Data Source
Air Quality (AQI)	EPA OAR
Air quality (PM2.5);	EPA EJ Screen
Air quality (O3);	EPA EJ Screen
Air toxics cancer risk	NATA
Respiratory hazard index	NATA
Diesel PM	NATA
Proximity to Traffic (Air quality)	EPA EJ Screen
Proximity to Environmental Hazards	EPA EJ Screen
Superfund Proximity	EPA EJ Screen
RMP Facility Proximity	EPA EJ Screen
Hazardous Waste Proximity	EPA EJ Screen
Underground Storage Tanks (UST)	EPA EJ Screen
Wastewater Discharge	EPA EJ Screen

## Resiliency variables

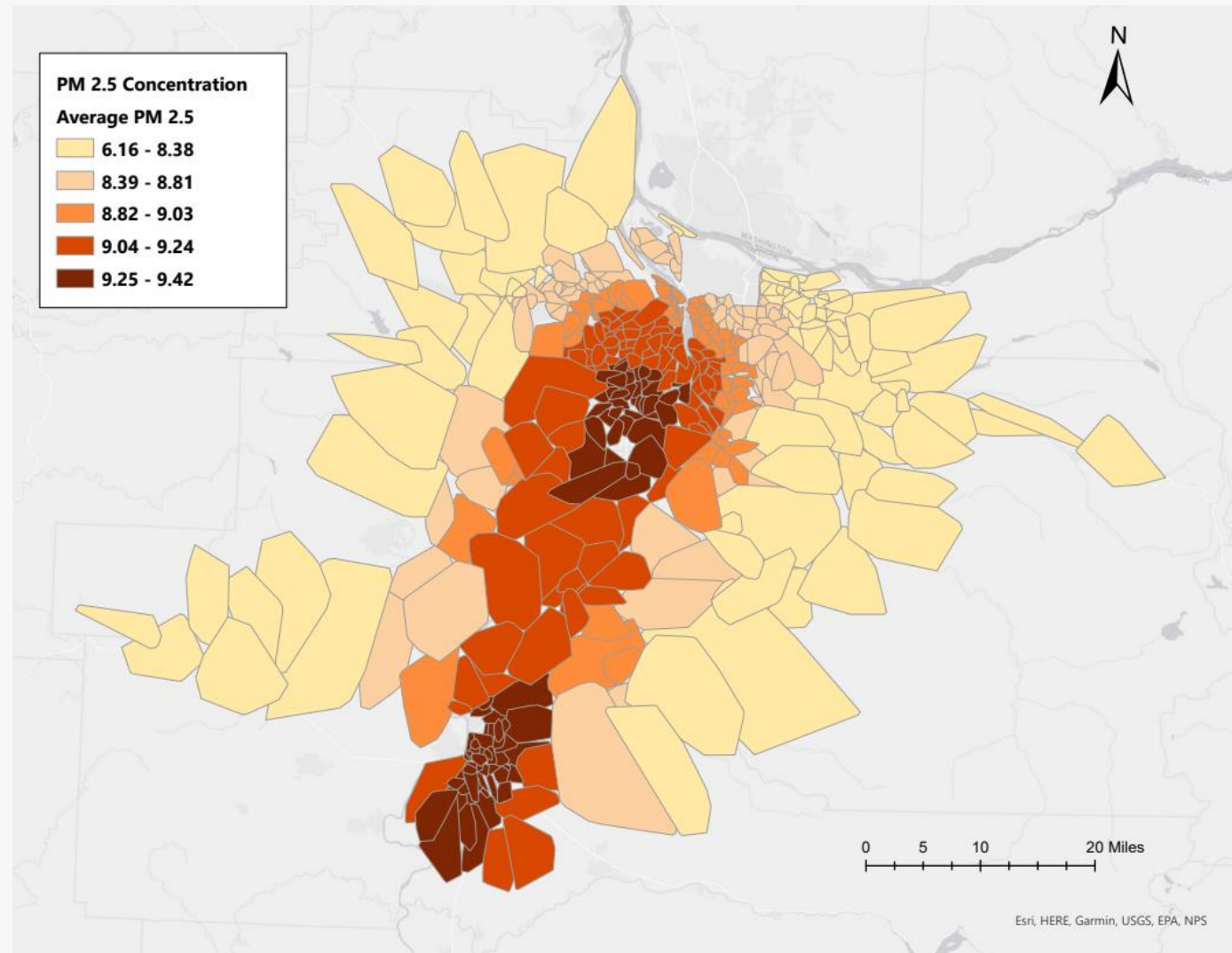
Variable	Data Source
Public Safety Power Shutoff Zone	PGE
Wildfire Risk	Oregon Department
Flood Risk	RLIS-FEMA
Seismic Risk	DOGAMI
CMI	PGE SAM
CELID24	PGE SAM
Loss of supply substation - count	PGE SAM
Loss of supply substation - hours	PGE SAM
Loss of supply transmission - count	PGE SAM
Loss of supply transmission - hours	PGE SAM
MED	PGE SAM
SAIFI	PGE SAM
SAIDI	PGE SAM
Sustained outages	PGE SAM

# Example – PM2.5

Particulate Matter – PM2.5 measurements come from EPA's EJScreen Tool, also used in Greenlink Equity Map

Mapped PGE service points to census-tract and feeder to correlate data points

Next step: Continue analysis of overlapping variables for any correlations with each other and DER adoption forecasts



# Next steps

Complete Energy Efficiency disaggregation to substation

Write-up report section for DSP Part II - DER and load forecast section

Incorporate results into IRP modeling workflow - resource adequacy and portfolio optimization

Incorporate TE findings and analysis into TE Plan

Continue model refinements

Iterate with Community Workshops on Equity Metrics and incorporation of energy equity data for NWS concept proposals



# 10 Minute Break





# Reporting Lessons Learned from Community Workshops

**Shadia Duery**, she, her, ella, Distribution System Planning,  
Project Manager

4/27/2021



# Objectives

Revisit DSP Part 1 Community Engagement Plan

Explore DSP Part 2 Requirements that call for Community Engagement

Report on PGE approach to those requirements



# Empowered Communities at a Glance

Enabling equitable participation in the clean energy transition

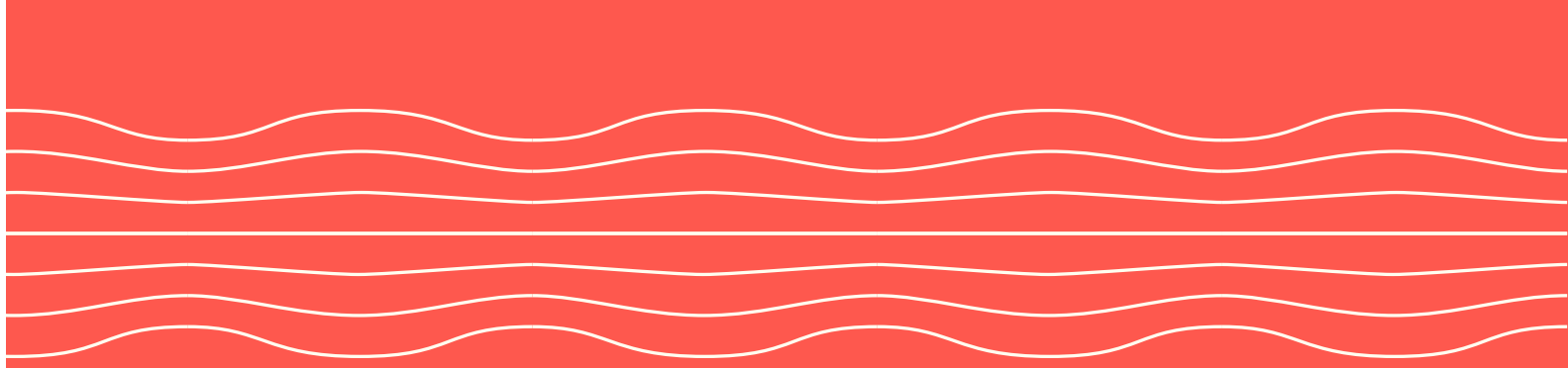
## Community Engagement

<b>Stage 3</b>	Utilities collaborate with CBOs and environmental justice communities so that community needs inform DSP project identification and implementation. "Community needs" could address energy burden, customer choice and resiliency.
	Reflecting UM 2005 outreach requirements, utility holds ongoing community stakeholder meetings during grid needs assessment, solution identification, and action planning.
<b>Stage 2</b>	Utilities and OPUC agree on community goals, project tracking and coordination activities.
	Conduct baseline study to increase detailed knowledge of service territory communities. Engage CBO experts to inform co-created community pilot(s).
	Consult with communities to understand identified needs and opportunities, then seek to co-develop solution options, documenting longer-term needs.
<b>Stage 1</b>	Hold four public pre-filing workshops with stakeholders on Plan development.
	Utilities create a collaborative environment among all interested partners and stakeholders. Utilities document community feedback and utility's responses.
	OPUC prepares accessible educational materials on DSP with consultation from CBOs and utilities.
	Prepare a draft community engagement plan as part of Plan.
	Utilities conduct focused community engagement for planned distribution projects.
	OPUC to host quarterly public workshop and technical forums after Plan filings.

2021 - 2022

2023 and beyond





Empowered Communities represents the company's efforts as an essential service provider to both engage and understand where our customers live, work, learn and play, as well as co-develop solutions with them that provide direct community benefits and access to clean energy.

PGE sees it as incumbent upon itself to pursue the twin goals of racial equity and decarbonization and ensure that the company addresses and acknowledges disparities and impacts within all the communities PGE serves.

# DSP Part 1: Empowering Communities



## **HUMAN-CENTERED DESIGN AND PLANNING:**

PGE acknowledges the harm the resulting from historic inequity and seeks to engage environmental justice communities to better understand how best to address and overcome disparities in our electricity system.



## **COMMUNITY ENGAGEMENT PLAN:**

PGE seeks to advance beyond its current stage of DEI maturity to advocate and implement best practices that will aid in accomplishing community-defined goals, objectives and desired outcomes.



## **LEARNINGS TO APPLY TO PART 2:**

Through application of an equity lens PGE has identified gaps and impacts that it may now address along the spectrum of engagement to build trust and co-develop solutions that meet community needs

# Spectrum of Community Engagement to Ownership

- A human-centered approach requires a **long-term orientation**
- PGE aims to engage our communities and build relationships that move to the right on the spectrum

	0	1	2	3	4	5
Stance toward community	Ignore	Inform	Consult	Involve	Collaborate	Defer to
Impact	Marginalization	Placation	Tokenization	Voice	Delegated power	Community ownership
Community engagement goals	Deny access to decision-making processes	Provide the community with relevant information	Gather input from the community	Ensure community needs and assets are integrated into process and inform planning	Ensure community capacity to play a leadership role in implementation of decisions	Foster democratic participation and equity through community-driven decision-making; bridge divide between community and governance
Message to community	Your voice, needs and interests do not matter	We will keep you informed	We care what you think	You are making us think (and therefore act) differently about the issue	Your leadership and expertise are critical to how we address the issue	It's time to unlock collective power and capacity for transformative solutions

# DSP Part 2 Focus Areas

Focus Area	Goals	Objectives	Outcomes
<b>Develop Competency</b>	Build skills and resources that help PGE address our gap in competency in community engagement and operationalizing equity	In NWA, Part 2, ensure frequent communication, feedback loops, follow-thru, early and often engagement and transparent report outs.	Build durable, long-lasting, and mutually beneficial relationships with community partners and after relationship is cultivated, work towards partnership with community-based organizations (CBOs) representing environmental justice communities.
<b>Activate CBO Participation</b>	Center meaningful participation of environmental justice communities	In NWA, Part 2, advocate for representation on House Bill 2021 Community Benefit and Impact Advisory Group (CBIAG), build CBO capacity/resources via financial assistance, and pursue direct community engagement as a complement to CBO partnership	Members of environmental justice communities are able to contribute and be involved in a meaningful way
<b>Unlock Demographic Data</b>	Rely upon a diversity of data (GARE Racial Equity Tool, Step #2) and diversity of research (including both quantitative and qualitative)	Ensure engagement is informed by data and tailored to the needs and interests of affected communities.	Understand community energy needs, desires, barriers and interest in clean energy planning and projects and where opportunities exist.



# DSP Part 2

## Requirements that call for community engagement

- Development of a community needs assessment process
- Co-creating NWS with community
- Reviewing Needs and investments with community

## Our approach to addressing these requirements

- Use the practices outlined in the Community Engagement Plan
- Engage CBOs in the development of NWS & learn together:
  - What it means to co-create
  - What equity means to CBOs and how it applies to the energy space
  - How to define community needs

# Where Are We?

---

## Community Workshops

**Dates and times:** March 16, April 7, May 4 & May 25 from 9-11 am

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**Topics to discuss:** Equity Data, Community Needs, NWS Pilot Projects

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**Audience:** Community Based Organizations (CBOs), municipalities, and city gov

---

## CBO Engagement

Clean Energy Project & Energy Trust of Oregon (ETO) Working Together Grant

---

Co-development of Community Workshops

---

## Adding Capacity

Community Engagement & Diversity Equity and Inclusion (DEI) roles:

- **Samantha Thompson**, Energy Equity Partner
  - **Walle Brown**, Principal Diversity Consultant
-

# Community Workshop Goals

For stakeholder groups to better understand the technical DSP workspace

- Understand, Advise, Advocate

For PGE to have more effective processes

- Utilizing most effective methods
- Finding most effective tools

For PGE to conduct Community Needs Assessment

- Integrate equity with grid needs
- Better partnerships



# Community Workshop Attendees

Organization	Area of Focus - Mission/Values
<b>PGE*</b>	Utility - Contribute to the people, cultures, and communities it serves - all while continuing to provide safe, reliable and affordable energy
<b>Community Energy Project (CEP)**</b>	Education, home & energy repairs, EE solutions - Everyone deserves a safe, healthy, efficient home, regardless of income.
<b>ICF**</b>	Management Consulting - Building a safe and prosperous world for all
<b>NW Energy Coalition</b>	Decarbonized and equitable energy system - Coalition of human, environmental, utilities, and businesses across NW states
<b>Multnomah County Office of Sustainability</b>	Sustainability - Connection between healthy planet and healthy people, achieving social, economic, and environmental justice
<b>Coalition of Communities of Color</b>	Multi-focus including racial justice, decolonizing research, EJ - Right to research, right to know, right to be seen, right to be heard
<b>Verde</b>	Environmental investments - Building environmental wealth thru social enterprise, outreach, advocacy
<b>Unite Oregon</b>	Justice - HUG-led, build a unified intercultural movement for justice
<b>Spark NW</b>	
<b>Metro Climate Action Team (MCAT)</b>	Community of experienced volunteers working within OLCV to steward significant greenhouse gas reduction policy into law in Oregon
<b>Oregon Public Utility Commission (OPUC)</b>	Chief electric, gas and telephone utility regulatory agency of the government of the U.S. state of Oregon. It sets rates and establishes rules of operation for the state's investor-owned utility companies
<b>Citizen</b>	



# Topics Covered in Community Workshops





# Electric Utility Planning



**Keep the lights  
on 24/7/365**

**Safe operations**



**WHY IT  
MATTERS**



**Keep bills low**

**Electrify  
transportation**



PGE Distribution System Plan (DSP) Part 1 (October 2021):

[https://assets.ctfassets.net/416ywc1laqmd/i9dxBweWPkS2CtZQ2ISVg/b9472bf8bdab44cc95bbb39938200859/DSP\\_2021\\_Report\\_Full.pdf](https://assets.ctfassets.net/416ywc1laqmd/i9dxBweWPkS2CtZQ2ISVg/b9472bf8bdab44cc95bbb39938200859/DSP_2021_Report_Full.pdf)

# Community Touchpoints



**Customers  
/ Community  
Needs**

**Affordability  
Reliability  
Neighborhood  
Impact**



**Grid Needs**

**Safety  
Physical needs  
Reliability**



**Identify  
Possible  
Burden +  
Mitigations**

**How the grid  
and community  
are best served**

**Co-create a Distribution System Plan (DSP)**

# Environmental Justice

**Equal protection from environmental and health hazards and meaningful public participation in decisions that affect the environment in which people live, work, learn, practice spirituality and play. - Oregon House Bill 2021**

**Prevent Harm  
(Who is Burdened?)**

**Provide Benefit  
(Who Benefits?)**

**Inclusive and Accountable  
Decision-Making  
(Who is at the Table?)**

Source: House Bill 2021- <https://olis.oregonlegislature.gov/liz/2021R1/Measures/Overview/HB2021>



# Co-creating Energy Equity

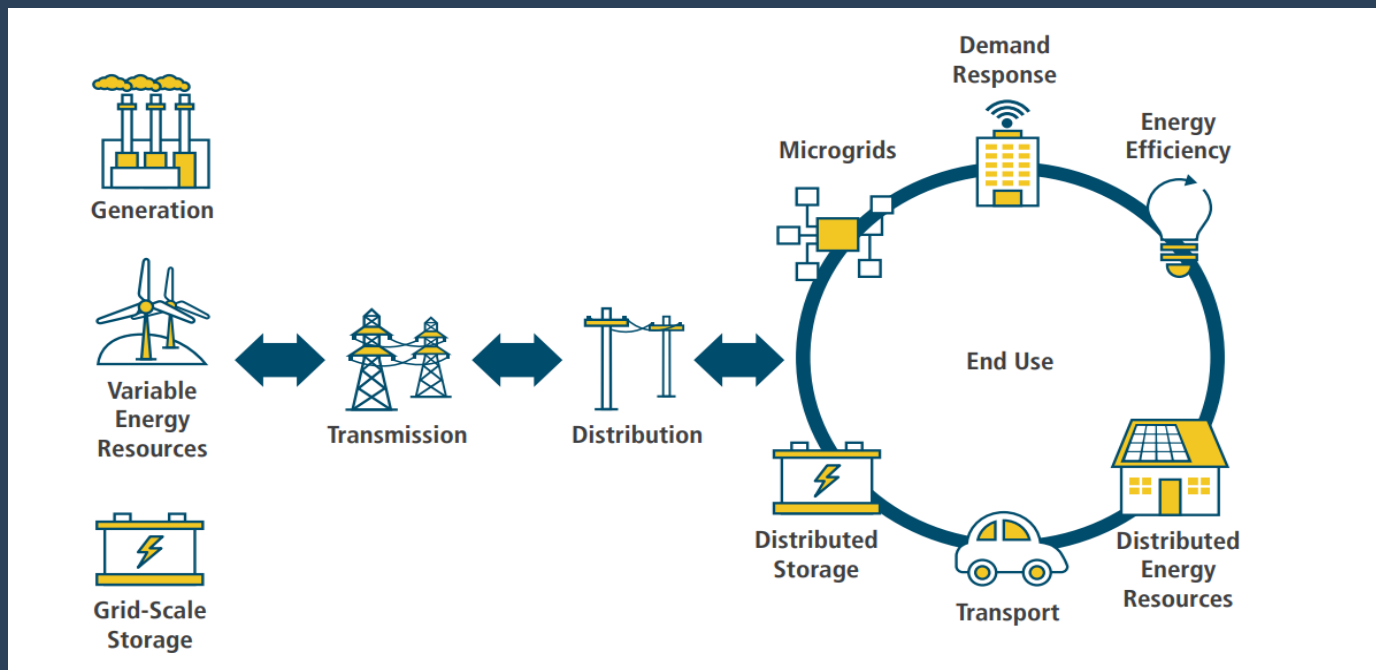
**Equity** refers to the fair treatment,  
**access**, **opportunity**, and  
**advancement for all people.**

- Department of Energy & Environment (DOEE)

# Modern Electric Grid



**From one-way power flow - large generation facilities to end users/customers**



**To two-way power flow - end users/customers can also generate power and/or interact with the electric grid**

# Distributed Energy Resources (DERs)



# Workshops 1 & 2 Takeaways



**COMMUNITY BENEFITS**



**FUNDING / FINANCIAL NEEDS**



**RENTERS VS OWNERS' NEEDS**



**EDUCATION / AWARENESS**



**TRANSPARENCY**



**COMMUNITY INVOLVEMENT**



**OUTCOMES**



**TRUST**

# Community Benefits

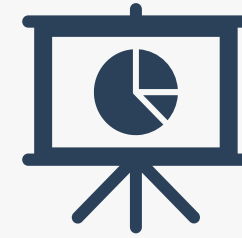


Human well-being is fundamental to energy equity and must be reflected in solutions

CBOs want EJ communities to benefit from the energy transition

- Opportunities for workforce
- Economic development

# Renter vs Owners' Needs



## Distinctions between building owners & tenants

- decision-making power
- cost burden (cost pass-throughs)

# Outcomes



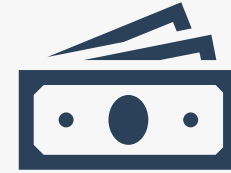
Clear communication of goals

Collaboration that leads to actions & benefits for the community

For example, planning with an equity lens to help support environmental justice (EJ) communities' needs.

How community feedback will translate into action by PGE

# Funding & Financial Needs



## Financial barrier to participate in PGE

- Meetings/ workshops (CBOs)
- Programs
  - In upfront costs
  - Balancing other financial needs, and
  - Realizing program benefits to cover costs
- To offer new options to their constituents through incentives, rebates, and programs



# Transparency



## PGE's

- Processes
- Responsibilities
- Budget
- Activities
- Rates
- Decisions, etc.

## Customers' electric bills

i.e. How customer/DER data will be used, and privacy maintained

# Education / Awareness



## Distribution System Planning

- Processes
- Resilience
- New technologies
- Ways to work together

CBOs want to learn more about conservation programs

- Rebates
- Incentives
- Grants
- Tax credits

New technologies, how to use them, & PGE's programs

# Trust

A lack of trust was identified as a key barrier to DER participation, given the historical relationship with utilities to prioritize customers' best interests.

# Community Workshop # 3

Integrating all the knowledge built from previous workshops

- **Step 1:** Identify a grid need that an NWS could solve (in a location)
- **Step 2:** Identify the community energy needs of the location
- **Step 3:** Conduct a DER stacking exercise to solve the identified community energy needs and grid need

# Next steps – Continue exploring

What it means to co-create

What equity means to CBOs and how it applies to the energy space

How to define community needs

**Please contact  
Shadia Duery,  
[shadia.duery@pgn.com](mailto:shadia.duery@pgn.com)**

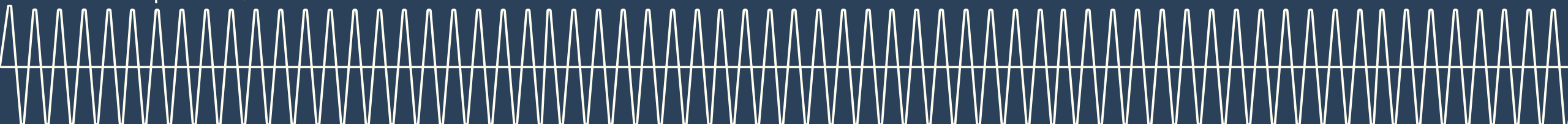
With feedback and/or  
for more information

# Clean Energy Plan Update

**Sam Newman**, *he/him*, Resource & Regulatory Strategy

**Dr. Steve Nakana**, *he/him*, Manager, Community Outreach

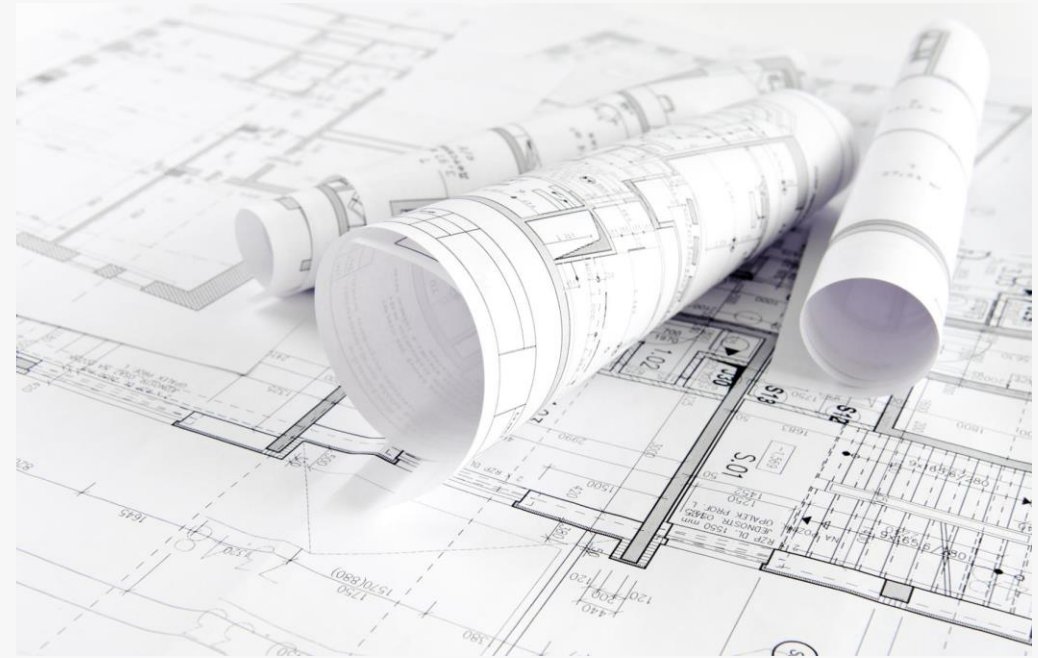
April 27, 2022



# Objective

Give participants information and request feedback on:

- Scope of Clean Energy Plan and DSP connections
- PGE's Conceptual Framework for CEP community engagement and CBIAG formation
- Upcoming opportunities to learn more and participate



# DSP Outputs will inform Clean Energy Plan

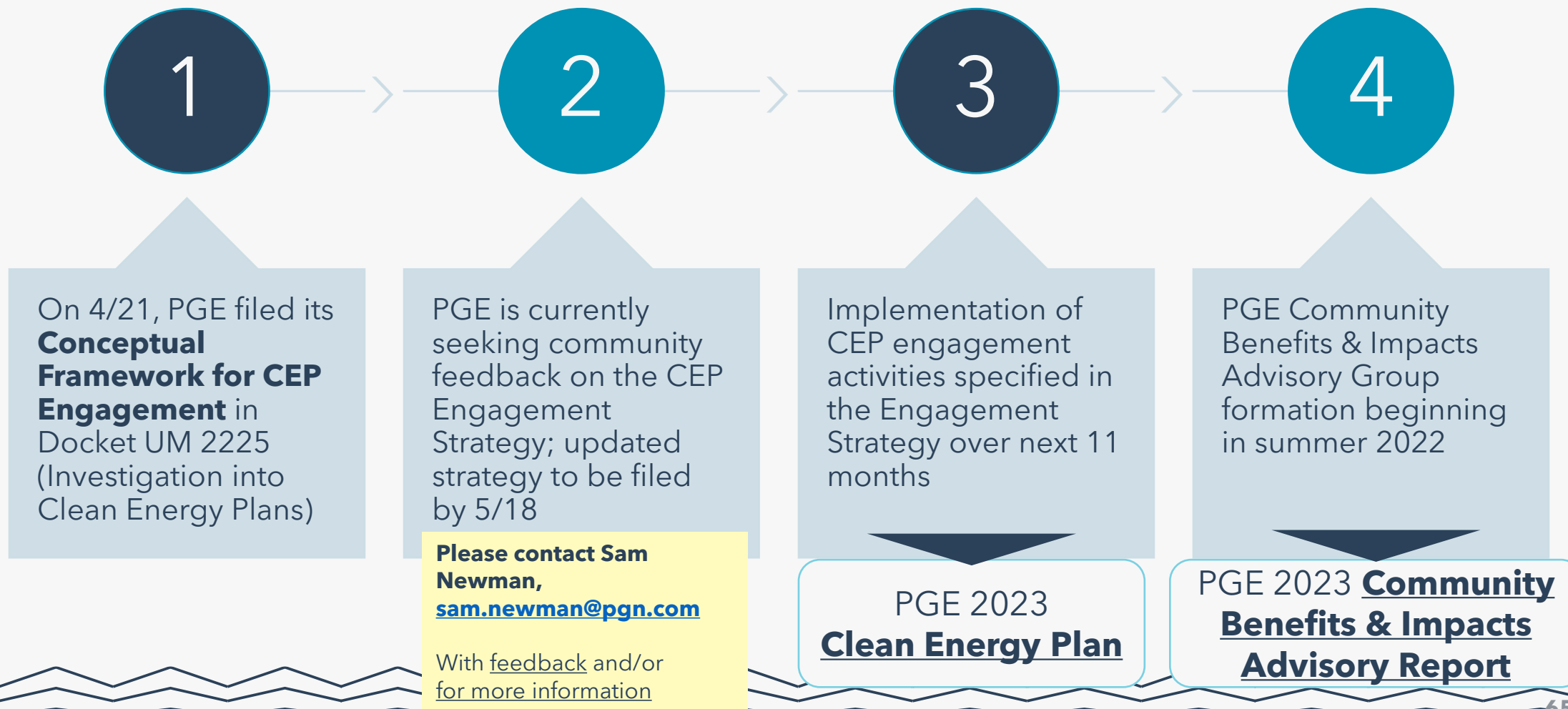
HB 2021 (Clean Energy for All Act) passed in 2021 establishes new Clean Energy Plans (CEP). Plans will include:

- Clean energy targets of 80% below baseline emissions by 2030, 90% by 2035, 100% by 2040
- Annual goals to make progress toward targets
- Risk-based examination of resiliency opportunities
- Examination of offsetting fossil fuel energy with community-based renewable energy
- Demonstration of continual progress
- Result in an affordable, reliable and clean electric system

PGE intends to align our first CEP with IRP Filing in March 2023



# CEP Development Timeline



# Conceptual Framework Approach

Framework builds on experience with DSP Partnership and Community workshops, plus IRP Roundtables and other best practices

Integration of equity lens as a process and an outcome

Community resiliency focus

- Particularly applicable related to CEP consideration of resiliency and community-based renewable energy opportunities

Human-centered approach

Results-based accountability

# Applying the Framework to CEP Engagement

*This draft strategy is presented as the starting point for community input*

## **Engagement Strategies:**

1. Apply the Community Engagement Framework
2. Leverage existing venues and work
3. Listen to community members' engagement priorities
4. Compensate partners for their time and expertise

## **Engagement Outcomes:**

1. Co-develop approach to community lens topics (resiliency, community-based renewables, non-energy benefits)
  - OPUC Process in UM 2225
  - Build on DSP Partnership and Community work already in progress
2. Provide meaningful opportunities to review interim results and contribute to analytical methodologies
  - IRP Roundtables
  - DSP Partner meetings
3. Transparent development of CEP scope, contents, and document
  - Broad approach including IRP roundtable and similar venues
  - Engage CBIAG to inform plan

# Community Benefit & Impact Advisory Group (CBIAG) Launch Approach

PGE will be developing a proposal for CBIAG formation

- Proposal will be guided by the Conceptual Framework

Proposed areas of CBIAG focus:

- Review and consult on PGE's biennial Community Benefits & Impacts report development.
- Advise on community priorities and community engagement needs for PGE system plans, specifically the IRP, DSP, and CEP. Focus would be on future (>2023) planning cycles
- Inform community engagement plans across other PGE topics

Look to group members to help develop and structure the CBIAG

# Takeaways and Next Steps

The Clean Energy Plan will build on DSP work to develop a roadmap to HB 2021 goals

The PGE CBIAG will shape PGE's future approach to public engagement and understanding of community priorities

We are actively seeking input on CEP engagement and CBIAG formation:

**Please contact Sam Newman,**  
[sam.newman@pgn.com](mailto:sam.newman@pgn.com)

With feedback and/or  
for more information

# Next Steps

# DRAFT Agenda for 2022

## June 8

- DSP Updates:
  - Community Engagement
  - Product Development
  - Work Force Development
- Current & Future Grid Needs Identification Process
- NWS

## July 13

- DSP Updates
- DER Forecasting & Adoption
- Current & Future Grid Needs Identification Process
- NWS
- Community Engagement

## Aug 3

- Presenting DSP Part 2 Report content before filing

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

**You can reach us at:**

**[DSP@PGN.com](mailto:DSP@PGN.com)**





# Appendix



# DSP Part Two Framing

**Angela Long**, Distributed Resources Planning, Manager



# DSP Part Two Requirements Summary

**Due August 15, 2022**

## Forecasting of Load Growth, EV/DER Adoption

- Describe **current state for Load Forecast** - process, tools, data
- DER/EV:
  - Forecast methodology and geographic allocation
  - **Adoption by substation** - high/med/low scenarios
  - Forecast of load growth and adoption




## Grid Needs Analysis

- Document process to assess grid adequacy and identify grid needs
- Discuss criteria used to assess reliability and risk - methods and modeling tools used
- **Present prioritized constraints publicly**, including prioritization criteria and timeline to resolve constraints



## Solution Identification

- Document process for identifying the range of solutions to address grid needs
- **For each need, describe the data used to support investment decisions**
- For large projects, describe process for engaging communities and getting input
- **Propose 2 NWS pilot projects**



## Near-term Action Plan (2-4yrs)

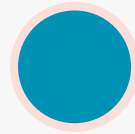
- Provide 2-4 yr. plan to address grid needs
- **Disclose planned spending, timeline and recovery mechanism**
- Discuss relationship between planned investments
- Discuss pilots being conducted to enhance the grid

# Goals of DSP Part Two



## Community Engagement

- Two-way flow of information
- Co-created education material
- Continued partnerships with community experts



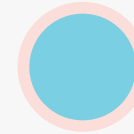
## Metrics & Data

- Resilience metrics for customer and utility
- Socio-economics & Demographics
- Cost-benefit analysis



## DER Resource Planning

- Climate risk modeling
- Decarbonization
- NWS, Locational
- DEI/Equity
- Estimated impacts of electrification adoption



## Portfolio Analysis

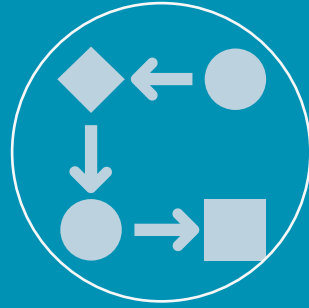
- Cost-effective DER
- Environmental and social justice community
- Resilience/Outage
- High DER adoption

# High Level - Project Timeline



**Planning:**  
Developing the approach to address Part 2 requirements

Oct - Dec 2021



**Executing:**  
Co-creating an inclusive Distribution Planning process

Jan - May 2022



**Reporting:**  
Documenting the process changes and the plan to enact them

Jun - Aug 2022



Filing DSP Part 2

Aug 15, 2022



# Engaging Our Communities

Our objective is to foster **procedural equity and ensure diversity of voice** in the DSP planning process.

To accomplish this, we will continue to partner with Community-based Organizations (**CBOs**) and **other organizations that have longstanding relationships and establish trust in environmental justice communities** to:

- Co-develop solutions for NWA pilot projects
- Co-create community workshops to identify community energy needs, desires, barriers and interest in clean energy planning and projects
- Co-develop community education around key DSP practices and relevant energy related concepts

# Identifying Grid Needs for NWS Pilots

