Northwest Power & Conservation Council
Demand Resources Advisory Committee
December 2, 2024

Joe Walderman, NWPCC, began the meeting at 11:00. Kevin Smit, NWPCC, took roll.

DR Share-Out

PSE

Tom Smith, PSE, reported on a year's worth of residential/commercial DR programs including:

- Thermostat Programs, EV charger/telematics programs, residential batteries energy storage systems including Solar Edge and Tesla
- Incentivized and non-incentivized behavioral programs

He also discussed Commercial/Industrial programs including:

- Mix of automated and behavioral measures

Smith referenced a January 2025 launch of water heater demand response enablement

- Fulfilled through marketplace by delivering cellular-enabled CTA 2045 modules plus integrated controlled with other equipment

Smith reported that by the end of summer DR results saw:

- 50MW of nameplate capacity
- 70,000 people enrolled in opt in programs
- Highest performing days saw 15-minute intervals reaching 60MW, putting them on track
- Working with NEEA to develop Multifamily DR
- Working on more robust Time of Use (TOU) program

Challenges include:

- Lack of standardized approach to enroll in various programs or with various device types. Working on an all-in-one platform but right now the process is confusing for customers with multiple DERs
- Conflict between competing use cases
- Educating and earning customers trust

Idaho Power

Quentin Nesbitt, Idaho Power, reported:

- 320MW of DR in total
- Irrigation is largest program but total also includes C&I that ranges from 20KW up, depending on the customer
- Residential AC program in place

- Residential TOU with not a lot of participation as the program is new
- Fully implemented distribution voltage optimization program which is not included in the reported 320MW

Nesbitt said they are thinking of adding:

- Bring-your-own-thermostat program in 2025
- Expand C&I
- Automated option was added to C&I without much take-up
- Evaluating customer-owned batteries but is finding conflict with other programs

Nesbitt reported Idaho Power's IRP looks to add another 20MW in the coming years. He said challenges are

- Getting the value proposition right, "what is the true avoided cost of DR compared of building another resource"

PGE

Walderman reported that PGE's Flexile Load Multi-Year Plan shows 106MW with a variety of direct load control programs including:

- Battery pilot program
- Smart thermostat and peak rebate program that helped mitigate heatwave effects
- Developing virtual power plant
- ADMS

Angela Long, Rockcress, added that PGE is focusing on the virtual power plant, lining up resources and technology to support that effort. She said they have a goal of 2000MW of VPP with the majority looking like DR. She noted the ability to include smart invertors on solar, allowing them to use solar + storage as a DR resource.

Long said PGE is also working on the cost effectiveness of DR and how to use it as a grid resource.

BPA

Frank Brown, BPA, noted that it is hard for Bonneville to build a business case for sustained DR programs for business. He did report that BPA is using:

- Voltage reduction on a daily basis following prices for NW savings
- The 2021 Plan picked as much of this low-cost resource as possible
- The 2021 Plan also picked as much residential TOU product as possible

Brown stated that BPA's modeling found the same results. Because of this, BPA offered energy efficiency measures for their utility customers. He said they have spoken to customers about this since January 2024 have no takers yet. Brown remains confident about up-take but said there needs to be a way to measure savings.

Seattle City Light
Jennifer Finnigan, SCL, reported on:

- Two-year BYO Thermostat pilot with 3000 customers and seven events in 2024.
- 20% of those customers were multifamily

Planned programs include:

- Opt-in TOU in 2025
- Opt-out TOU in 2026
- Large C&I customer offering in 2025

She said SCL is pulling together a five-year strategy for DR in general starting next year. Finnigan said SCL did not need DR historically, but things are changing due to:

- Future loads due to electrification
- Volatile market prices
- Extended weather events

Finnigan said, as a hydro-based utility, they are seeing the most value in long events from four to eight hours and longer. She said being winter peaking also sets the utility apart.

Finnigan reported that SCL currently has:

- Less than 1MW of DR
- Targets from their most recent IRP calls for 19MW of DR and 7MW of TOU by 2033

Finnigan said SCL faces many challenges around this including:

- Limited understanding of DR by customers
- Limited understanding of DR within the utility
- Developing planning values to feed into the IRP that are accurate for SCL's case
- Coming up with funding, particularly after missing a grant
- Finding and retaining staff for this effort
- Finding the right value proposition

PacifiCorp
Laura James, PacifiPower & Rocky Mountain Power, first spoke of PacificPower's efforts including:

- DR programs in OR and WA
- C&I delivers largest capacity with a mix of manual and automated response
- Irrigation load control and residential (water heater and/or smart thermostat) are the second biggest
- Expect all to grow substantially over the years, despite cancelling residential in November as planning estimates were not bearing out.
- Introducing three programs target residential customers: Wattsmart Battery, CoolKeeper (load control switch on AC/HP compressors), EV charging program for frequency response.

- Launching a pilot for community-scale batteries for community-resiliency hubs

For Rocky Mountain Power James listed:

- Irrigation as the biggest program with 150-200MW at its peak.
- Roll out C&I and Residential programs in 2026

James expects new targets in early 2025, saying the process produces higher targets that program managers think are achievable. She said most capacity is used for frequency response and contingency reserve capacity, which is different than the rest of the region. James explained that all programs provide resources at the BA level, but pointed to efforts to build distribution-level use cases so they can call smaller, localized subgroups.

Tacoma Power

Cam LeHouiller, Tacoma Power, updated that:

- Grid-integrated water heater pilot project with external controllers and 250 customers is ending.
- Achievable results were tracked and felt positive about using CTA2045 in the future

LeHouiller said a DR potential assessment found four areas of interest for pilots including:

- Industrial on-call load curtailment
- Voluntary peak time rebate
- BYO Thermostat program
- EV managed charging specifically for fleet customers

LeHouiller reported identifying:

- 50MW of achievable flexible winter load
- 46MW of achievable summer flexible loads

High level goals include:

- 2MW by the end of 2026 including an industrial interruptible customer
- DR of 10MW for completion by 2046

LeHoullier said Tacoma is focused on affordability to avoid rate increases that would burden customers.

Clark PUD

Zeecha Van Hoose, Clark PUD, shared:

- Managed EV charger pilot targeting 800 EVs
- Industrial DR pilot that ran through 2024 with almost 10MW of callable load that did six days of calls with good participation

NW Natural

Haixiao Huang, NW Natural, was excited to share:

- Residential BYO Thermostat program that will launch in a week or so
- Creating synergies and encouraging communication between electric and gas efforts

Walderman asked the group to share data about how to incorporate TOU rates and any load shapes with him via email. He ended the meeting at 12:05.

Attendees via Zoom Webinar

Joe Walderman	NWPCC
Kevin Smit	NWPCC
Annika Roberts	NWPCC
Chad Madron	NWPCC
Ahlmaz Negash	Tacoma Power
Andrew Grant	Cadmus
Angela Long	Rockcress
Aaron James	NEEA
Blake Scherer	Benton PUD
Bonnie Watson	BPA
Brenda Hunt	NEEA
Brian Dekiep	NWPCC
Cam LeHouiller	Tacoma Power
Christina Steinhoff	NEEA
Christy Intihar	BC Hydro
Cindy Wright	SCL
David Moody	BPA
Ehren Foss	Carbon Direct
Elizabeth Osborne	NWPCC
Emily Buzek	Energy Hub
Frank Brown	BPA
Fred Heutte	NW Energy Coalition
Haixiao Huang	NW Natural
Hayden Reeve	PNNL
Heather Nicholson	Orcas Power & Light
Jameson Brouwer	independent
Jason Ward	Breaker Authority
Jeff Harris	NEEA
Jeff Tripp	PSE
Jennifer Finnigan	SCL
Jennifer Snyder	WA UTC
Josh Mitchell	Cheland PUD
Kei Fujisawa	Rep Kim Schrier Office
Kitty Wang	Energy Solution
Kyle Billeci	PGE
Lakin Garth	Sepa Power
Laura James	PacifiCorp
Malcolm Ainspan	NRG
Mark Jerome	CLEAResult
Mary Kulas	PPC
Michael Swanson	CLEAResult
Mike Kowalick	EDO Energy
Misty Earlsman	Student
Naor Deleanu	Olivine
Nathaniel Nichol	independent
Nick Gemperle	PSE
Nick Sayen	OR PUC
Nicolas Garcia	WPUDA
Nolan Kelly	BPA
Nora Hawkins	WA Dept of Commerce
Paul Koenig	WA UTC
Peter Kernan	OR PUC
Poppy Storm	2050 Institute
Quentin Nesbitt	Idaho Power
Rick Knori	LV Energy
Rob Del Mar	ODOE
Roberto Noguera	CEC
Robin Maslowski	Trillium Energy
Sadie Bender	PNNL
Sarah Widder	Resource Innovations
Scott Reeves	Resource-Innovations
Shelly Carlton	Energy Trust
Shivani Subramaniam	WA Dept of Com
Suzanne Frew	Snohomish PUD
Talia Mirel	WA Dept of Com
Ted Light	Lighthouse Energy
Tom Eckhart	UCONS
Tom Smith	PSE
Troid Edwards	Olivine
Wesley Franks	WA UTC
Zeecha Van Hoose	Clark PUD