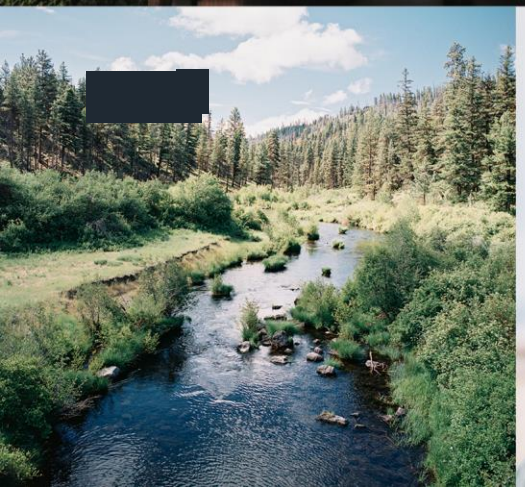


Distribution System Workshop

Distribution System Workshop # 3 | 25 – Oct 1, 2025

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**

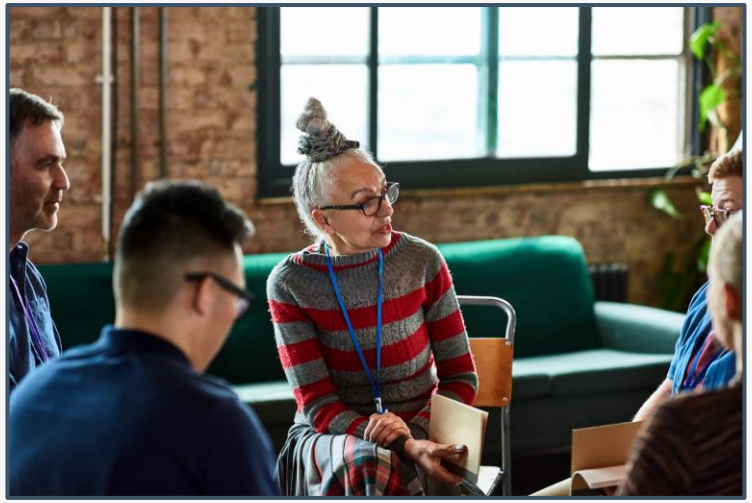
Stay Engaged

Be Willing To Experience Discomfort

Speak Your Truth Respectfully

Expect and Accept Non-closure

Share the Airtime



The courageous conversations framework
by Glenn Singleton and Curtis Linton

Agenda

10:00 - Welcome & Meeting Logistics

10:05 – 2024 DSP Second Round of Comments

11:00 - DSP Grid Needs Prioritization Methodology Update

11:55 –Next Steps & Adjourn

2024 DSP Second Round of Comments

Seemita Pal, Senior Principal Analyst

Distribution System Workshop # 3 | 25 – Oct 1st, 2025

Thank You for Your Feedback

- Public Utility Commission of Oregon (OPUC Staff)
- Energy Advocates
  - NW Energy Coalition (NWEC)
  - Green Energy Institute at Lewis & Clark Law School (GEI)
  - Oregon Solar + Storage Industries Association (OSSIA)
  - Climate Solutions
- Oregon Citizens' Utility Board (CUB)
- OSSIA

We value your feedback!

The information requests and formal set of comments indicate that our stakeholders are engaged, and we are grateful for that.

A Few Key Points

PGE's 2024 DSP complies with the Commission's current UM 2005 distribution system planning guidelines

We've addressed out-of-scope comments to support the development of future guidelines

ACTIONS | SERVICE LIST | **SCHEDULE** | Public Comments

Date/Time	Event	Description
10/28/2025 9:30:00 AM	PUBLIC MEETING **Location:** VIA ZOOM	Commission consideration of 2024 DSP at public meeting
10/21/2025	COMMENTS/RESPONSES DUE	Staff's Memo published
9/19/2025	COMMENTS/RESPONSES DUE	PGE Reply Comments due (2nd Round)
8/22/2025	COMMENTS/RESPONSES DUE	Staff and Stakeholder Comments due (2nd Round)
7/11/2025	COMMENTS/RESPONSES DUE	PGE Reply Comments published
6/13/2025	COMMENTS/RESPONSES DUE	Staff Comments published to the docket
5/1/2025	COMMENTS/RESPONSES DUE	Public Comment Period on 2024 DSP from 5/1/25 to 6/13/25.
4/17/2025	MISCELLANEOUS	PGE "office hours" for stakeholder questions and discussion
4/15/2025 9:30:00 AM	PUBLIC MEETING **Location:** ZOOM	Item No. RA1. PGE presentation of 2024 DSP to Commission at public meeting

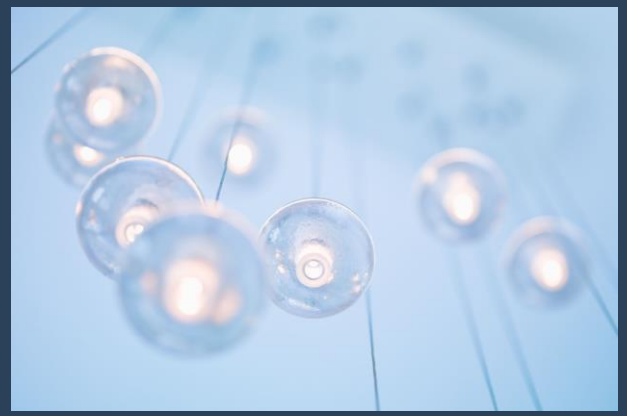
Themes of Comments

- Distribution Grid Needs
- Distribution Investment Prioritization
- Separate Proceedings for Planning and Rate Recovery
- Electrification
- Distributed Energy Resources
- Non-Wires Solution
- Limited Generation Feeders
- Further Information Requested

2024 DSP Comments

Theme 1:

Distribution Grid Needs



PGE's Grid Needs ranking is utilized by Distribution Planning to rank their distribution grid needs.

As customer needs and the regulatory environment evolve, PGE is iterating our approach for prioritizing distribution grid needs to be responsive and more effective.

PGE included the most current scoring matrix and calculations in Confidential Appendix.

The refinements to the ranking matrix will be discussed today.

2024 DSP Comments

Theme 2:

Distribution Investment Prioritization

Transmission and Distribution (T&D) projects are scored using a value framework for pre-qualification, ahead of any funding approval. Criteria used for value framework scoring are Safety, Environmental, Compliance, Customer Trust, Financial Impact/Reliability.

PGE develops various funding scenarios by categorizing projects appropriately.

PGE conducts a thorough evaluation of various investment scenarios to determine effective allocation of finite funds.

2024 DSP Comments

Theme 3:

Separate Proceedings for Planning and Rate Recovery

DSP	DSP ARM
PLANNING document • Provides insight into planning practices and forecasted outcomes • Shares information regarding the state of the distribution system, planning assumptions, grid needs and mitigating solutions • It is a snapshot at the time data is gathered/published; 2024 DSP was published in Dec. 2024	**LIMITED SCOPE TARRIFF filing** • Covers specific investments as described in the MOU signed by PGE, Staff, CUB and AWEC

2024 DSP Comments

Theme 4:

Electrification

PGE currently tracks electric service connections, some equipment upgrades, and participation in electrification programs (e.g., EV Smart Charging). PGE does not have access to retail natural gas usage information.

AdopDER is used to generate DER forecasts based on latest input data available at a regular cadence. PGE's Transportation Electrification Plan and associated Distributed Energy Resources (DER) forecasts are continuously refined to reflect actual adoption data as well as evolving policy and market conditions.

Current and future grid investments are aligned with actual adoption trends and documented system needs.

2024 DSP Comments

Theme 5:

Distributed Energy Resources

Stand-alone solar is included in the VPP

Rulemaking revisions for Small Scale Renewable (SSR) are currently ongoing in AR 674. We look forward to a thoughtful and constructive dialogue in AR 674.

VPP composition provided was illustrative; it will continue to evolve based on evolution of customer needs, technology capabilities, market and policy landscape.

Initial Benefit Cost Analysis (BCA) was developed to demonstrate what is possible and highlight the need to evolve our discussions on this topic. The methodology requires further development and investment. We are open to considering stakeholder recommendations as we iterate on it.

PGE plans to continue incorporating third-party vendors aggregating resources where it supports cost-effectiveness, expands participation, and complements our direct offerings.

2024 DSP Comments

Theme 6:

Non-Wires Solution

Non-wires solutions were considered in addressing the six grid needs that have been listed in the DSP. Summaries of those assessments are provided in the response.

While GETs are primarily discussed in the context of the transmission system, PGE also deploys similar technologies, such as AMI and FLISR, within the distribution system where it is cost-effective.

GETs: Grid Enhancing Technologies
AMI: Advanced Metering Infrastructure
FLISR: Fault Location, Isolation and Service Restoration

2024 DSP Comments

Theme 7:

Limited Generation Feeders

This Photo by Unknown Author is licensed under CC BY-SA

A list of previously constrained feeders and status of planned upgrades have been provided in document.

PGE's constrained feeder list is a dynamic list of feeders with a high generation-to-load ratio. The Net Metering Map is updated with information on a regular basis.

Refinements in the technical screening of behind the meter solar facilities that PGE identified in the UM 2099 proceedings were later incorporated in the Oregon Administrative Rules in AR 659. It led to steep reduction in the number of projects that required to install upgrades on limited generation feeders.

PGE Net Metering Map. Available at: Net Metering Map | Solar | PGE

2024 DSP Comments

Theme 8:

Further Information Requested by Staff

Staff requested information about RIDM framework, which is a new method of scoring that was not fully in place for prioritization of all distribution projects at the time when the 2024 DSP was developed.

RIDM is still being tested and refined before implementation can be completed.

We provided Staff an informal overview of the methodology on their request in advance of full adoption.

RIDM: Risk Informed Decision Making

Questions/ Comments

DSP Grid Needs Prioritization Methodology Update

Fatima Colorado, Distribution System Planning Manager

Distribution System Workshop # 3 | 25 – Oct 1, 2025

PGE An Oregon kind of energy.℠

Objectives

- Refresher on **“Ranking Matrix”** and **Grid Needs**
- Evolution of Grid Needs Prioritization
- Original Ranking Matrix
- List of Updates and Current Ranking Matrix

Grid Needs Assessment

Drivers

- Economic development
- Load growth/Forecasts
- Lumped load additions
- Modernization
- Policy regulatory requirements
- Safety
- Reliability performance

Enhance **safety**

Increase **reliability**

Meet **customer needs**

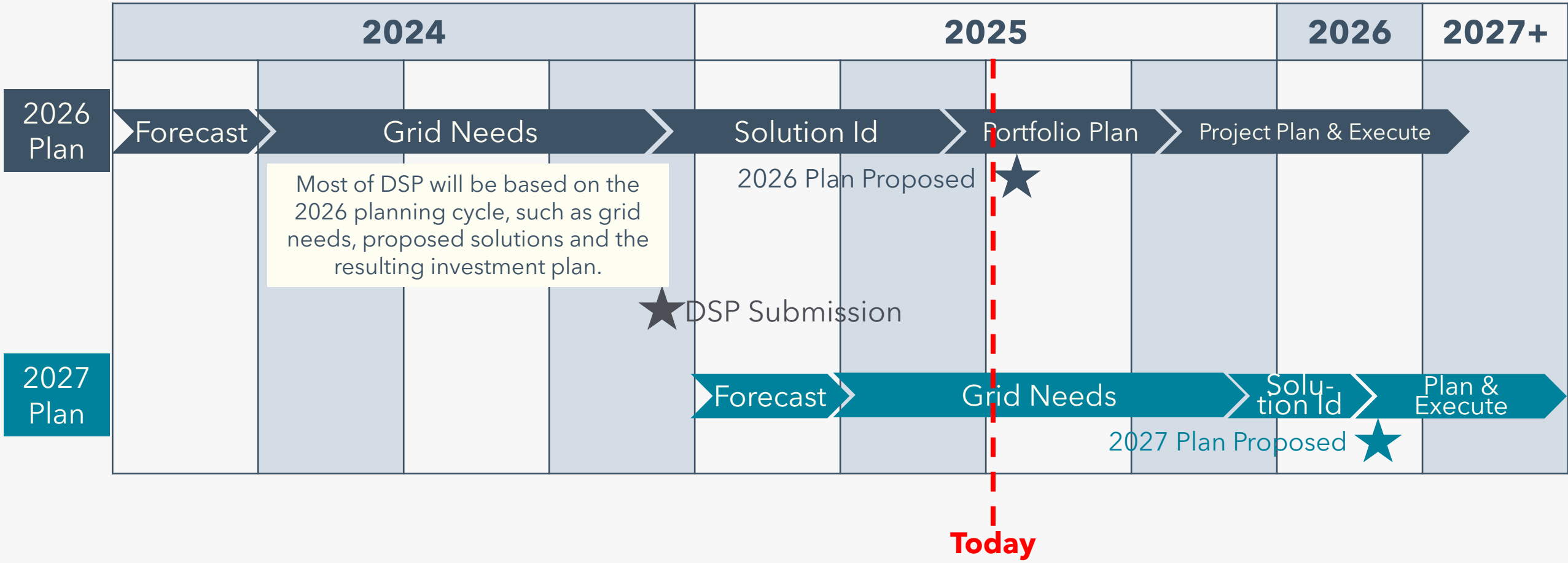
Meet **standards/requirements**

Recommend best **solutions**

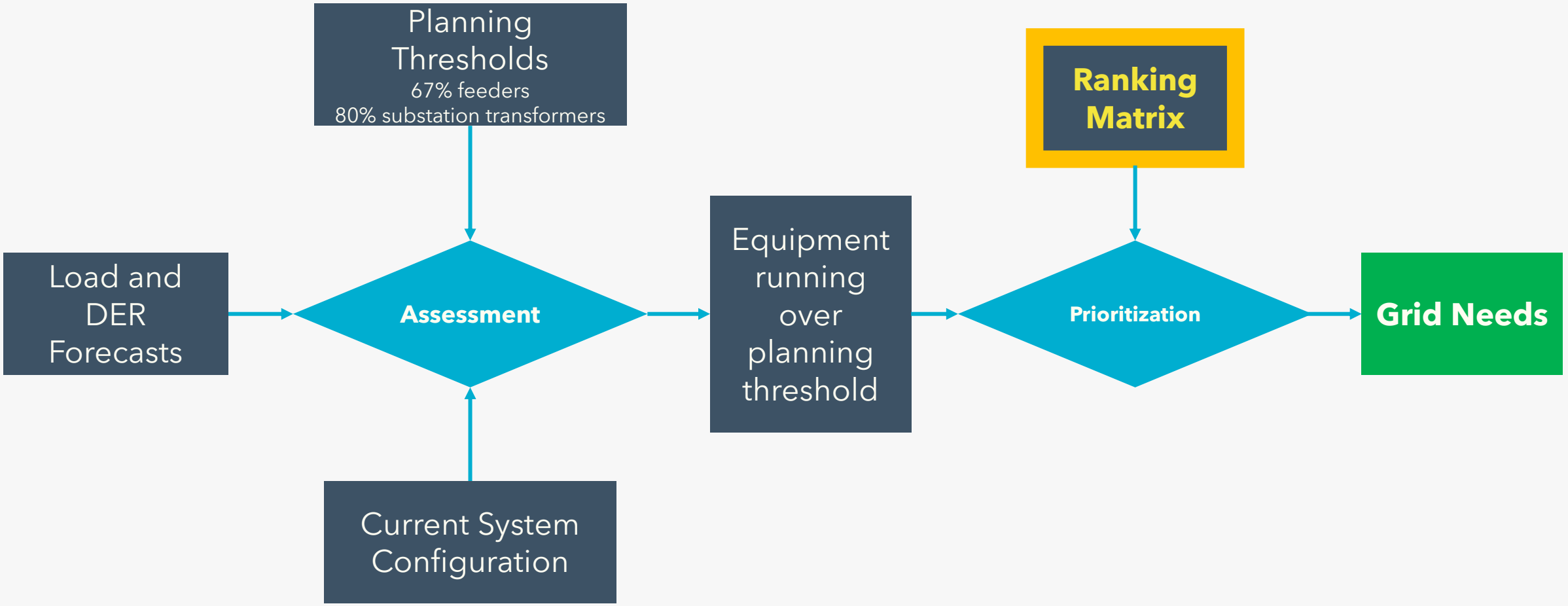
Reduce risk (likelihood x consequence)

Improve **customer experience**

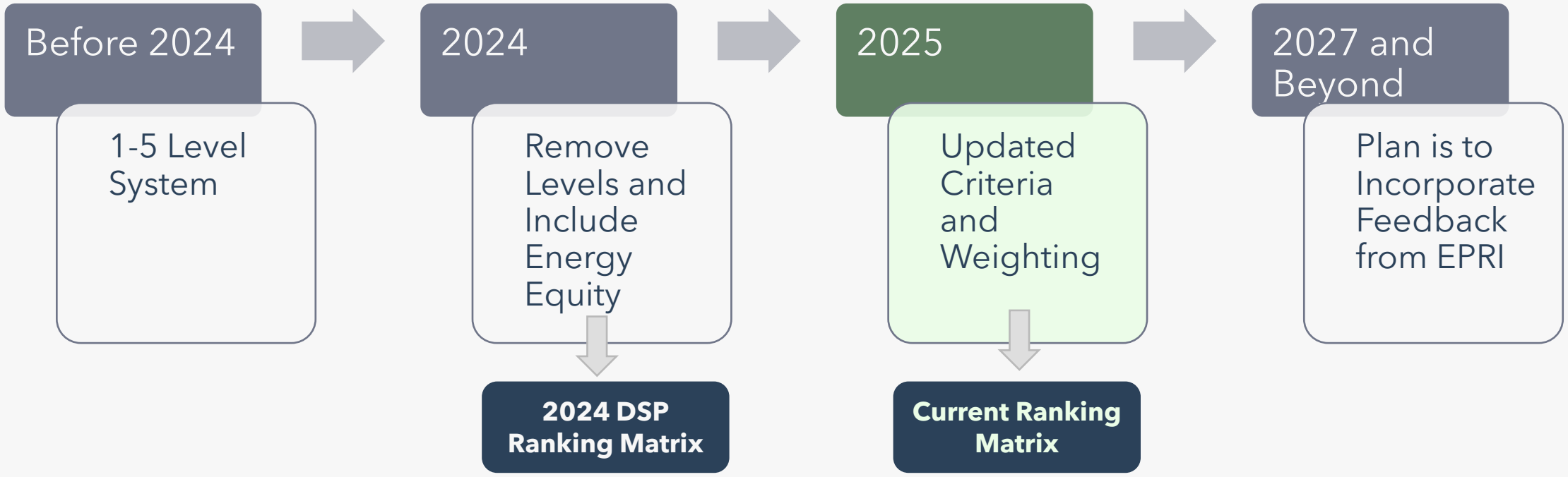
Investment Timeline: A 3-year Cycle



Grid Needs Analysis



Evolution of Ranking Matrix for Distribution Grid Needs



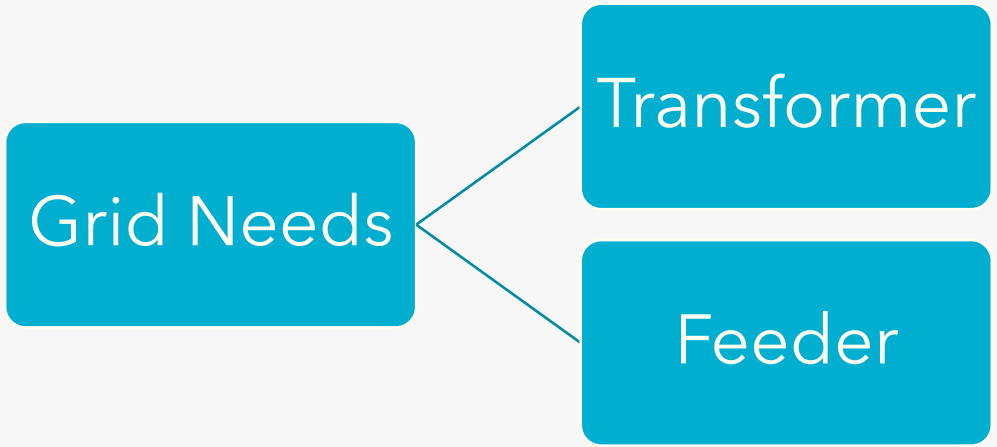
2024 DSP Ranking Matrix

#	Prioritization Criteria	Max Possible Score	Weighting
1	Addresses safety concern	20	15.5%
2	Must do for customer commitment	20	15.5%
3	Compliance-driver or mitigates transmission constraint	15	11.6%
4	Precursor to mitigating other grid needs	15	11.6%
5	Frees up or mitigates mobile/temporary equipment	15	11.6%
6	Equity index metric	5	3.9%
7	Feeder % loading of seasonal limit (N-0)	4	3.1%
8	Transformer % loading of load beyond nameplate ratings LBNR (N-0)	4	3.1%
9	Existing total asset and geo risk (substation)	4	3.1%
10	Existing CMI impact (substation)	4	3.1%

2024 DSP Ranking Matrix –contd.

#	Prioritization Criteria	Max Possible Score	Weighting
11	Existing total asset and geo risk (feeder)	4	3.1%
12	Existing CMI impact (feeder)	4	3.1%
13	Known load growth impact to equipment	4	3.1%
14	Substation SCADA	3	2.3%
15	Multiple feeders or transformers exceed criteria	3	2.3%
16	Overload or voltage issue for N-1 condition (feeder)	1	0.8%
17	Overload or voltage issue for N-1 condition (transformer)	1	0.8%
18	Distribution transformer utilization index	1	0.8%
19	Distribution feeder utilization index	1	0.8%
20	Make substation DG ready	1	0.8%

Update 1: Categorization and Separate Consideration of Grid Needs



2024 DSP grid needs ranking matrix grouped together all constraints at one substation, which put too much weight on one substation.

Current grid needs ranking matrix decouples substation and feeder grid needs. It enables identification and ranking of smaller, less capital-intensive projects, like reconductors, against one another.

Update 2: Decoupling of Transmission Grid Need

2024 DSP grid needs ranking matrix included a criteria mitigates transmission constraint'.

In **current** grid needs ranking matrix mitigation of transmission grid need was removed. It was determined that including a transmission constraint in the Distribution Grid Needs Ranking Matrix could lead to potential double counting given transmission planning has their own grid needs that they prioritize separately.

Update 3: Adding Customer Impact

2024 DSP grid needs ranking matrix did not include a criteria that included customer number impact

In **current** grid needs ranking matrix incudes a criteria that adds customer impact regarding the asset/s being replaced.

Update 4: Including 5-year Forecast

2024 DSP grid needs ranking matrix did not included a criteria that included 5-year forecast

In **current** grid needs ranking matrix incudes a criteria that adds a 5-year forecast as to not only prioritize the current needs but the future forecasted DER and load forecast.

Current Ranking Matrix (Transformer)

#	Title	Max Total	Peak Importance
1	Addresses Safety Concern	20	15.20%
2	Must Do for Customer Energization	20	15.20%
3	Precursor to mitigating other grid needs	20	15.20%
4	Frees up or mitigates mobile/temporary equipment or configuration	15	11.40%
5	Transformer % Loading of LBNR (N-0)	10	7.60%
6	5-YEAR OUTLOOK: Transformer % Loading of LBNR (N-0)	10	7.60%
7	Xfmrs Substation Configuration for Those Exceeding Planning Criterion	6	4.50%
8	Grid Needs Has Compliance Driver	5	3.80%
9	Equity Index Metric - 1-5	5	3.80%
10	Existing Total Risk (Substation)	4	3.00%
11	Existing CMI Impact (Substation)	4	3.00%
12	Number of Customers Served by XFMR	3	2.30%
13	Substation SCADA	3	2.30%
14	Is Substation DER-constrained (or Generation-Limited)	3	2.30%
15	Overload or Voltage Issue for a N-1 condition (Transformer)	2	1.50%
16	Distribution Xfmr Utilization Index	2	1.50%

Current Ranking Matrix (Feeder)

#	Title	Max Total	Peak Importance
1	Must Do for Customer Energization	20	22.0%
2	Feeder % Loading of Seasonal Limit (N-0)	10	11.0%
3	Transformer % Loading of LBNR (N-0) ONLY IF RECONDUCTOR PROJECT OFFLOADS A XFMR	10	11.0%
4	5-YEAR OUTLOOK: Feeder % Loading of Seasonal Limit (N-0)	10	11.0%
5	5-YEAR OUTLOOK: Transformer % Loading of LBNR (N-0) ONLY IF RECONDUCTOR PROJECT OFFLOADS A XFMR	10	11.0%
6	Reconductor Mitigates Overload or Voltage Issue for a N-1 condition (Feeder)	6	6.6%
7	Grid Needs Has Compliance Driver	5	5.5%
8	Equity Index Metric - 1-5	5	5.5%
9	CMI Impact (Feeder)	4	4.4%
10	Critical Customers Index	3	3.3%
11	Number of Customers Impacted (Downstream of Start of Loading Constraint)	3	3.3%
12	Length of Reconductor	3	3.3%
13	Distribution Feeder Utilization Index	2	2.2%

Prioritized List of Grid Needs for 2026 Plan

Priority*	PGE location	Grid need	Project	Resubmitted Project	Total
1	Happy Valley	Load Growth in Pleasant Valley	Happy Valley Project	Project Resubmitted	**43**
2	Evergreen	Industrial load growth and N-1 in Hillsboro	Evergreen	No	**48**
3	Tualatin	Industrial load growth in Tualatin	Quartz Project	No	**31**
4	Station E	Load growth in NW Portland and Aging assets	Station E Rebuild	Project Resubmitted	**31**
5	Glencullen	Aging Asset	Glencullen Rebuild	Project Resubmitted	**25**
6	Holgate	Aging Asset	Holgare Rebuild	Project Resubmitted	**22**
7	Swan Island	Load growth	Swan Island Feeder extension	Project Resubmitted	**21**
8	Various Locations	Generation Limited feeders	Generation Limited feeders Program	No (more to last)	**NA**
9	Barnes- Sunnyside	Load growth	Barnes- Sunnyside Reconductor	No	**19.8**
10	Fairmount – Mission	Load growth	Fairmount – Mission	No	**18.9**
11	Canyon	Aging Assets and N-1	Marquam-Canyon Ties	No	**11**
12	Meridian-13	Load growth	Meridian-13 Reconductor	No	**10.3**

Note: "Total" column shows the scoring based on the current ranking matrix that is utilized for prioritizing grid needs

Conclusion

PGE's Grid Needs ranking is utilized to rank the distribution grid needs.

Grid needs are not static. Projects can be added as soon as needs are determined and criticality can be assessed. Projects can be paused based on customer inputs, changes in priorities etc.

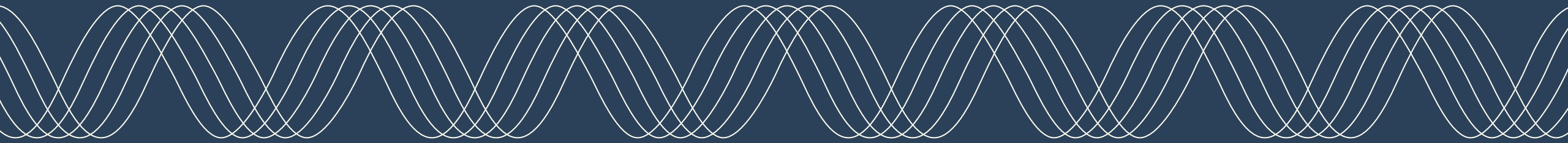
As customer needs and the regulatory environment evolve, PGE is iterating our approach for prioritizing distribution grid needs to be responsive and more effective.

In 2024 DSP, PGE provided the latest version of the ranking matrix at that time. At present we have an updated version which incorporates recent learnings and necessary updates.

PGE is working with EPRI on evaluation of the current ranking matrix. Any recommendations from EPRI will be considered for incorporation in the future.

Questions/ Comments

Next Steps and Closing Remarks



Next Steps & Closing Remarks

- PGE | DSP Office Hours | 10/09/25 | 12-1p | Zoom
- PGE DSP Docket UM 2197 Procedural Schedule
  - Staff's Memo Published | 10/21/25
  - Commission Consideration of 2024 DSP at Public Meeting | 10/28/25 (@ 9:30 am)

Meeting materials and recording will be posted to our Plan's Engagement webpage at Plans Engagement | Portland General Electric

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

Thank You for your participation in our plans

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kind of energy