UM 2005
Distribution System Planning
Staff Workshop 4
Stakeholder Feedback

October 21, 2020

Oregon Public Utility Commission

Today's Goals

- Shared understanding of scope and intent of Draft Guidelines
- Shared understanding of Staff's planned approach to addressing feedback over time
- Opportunity for parties to receive clarification on questions
- Opportunity for parties who do **not** plan to file written comments to provide feedback
- Opportunity for parties generally to provide feedback – Commission will seek to listen and collect comments, not respond at this time

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Agenda

Topic	Time
Welcome and Introductions	1:00 - 1:15
Overview of Draft Guidelines	1:15 - 1:45
Clarifying Questions	1:45 - 2:25
Break	2:25 - 2:30
Open Comments	2:30 - 3:25
Wrap up and Next Steps	3:25 - 3:30

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What's Next? UM 2005 Schedule

Oct. 21 – Workshop for stakeholder input

Oct. 29 – Written comments due

Dec. 1 – Revised Guidelines published

Dec. 15 – Guidelines presented to the Commission

Q4 2021 – First Utility DSP Plans filed

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Managing Feedback & Revisions

- The next five weeks – Guidelines finalization (Dec. 1)
- Next year – Utility Plan development
  - Quarterly stakeholder and technical forum, educational resources
  - Plan submission Q4 2021
- The next several years
  - Plan review by Commission late Q1 2022
  - Iterative and collaborative revision to Guidelines for 2023 and beyond

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Introduction to Guidelines includes…

- Purpose and Policy Context
- Goals and Guiding Principles (pg 4)
- Planning Interactions and Streamlining (pg 5)
    - Transportation Electrification Plan
    - Smart Grid Report
    - Annual Net Metering and Small Generator Reports
- Cost Recovery and Regulatory Development (pg 7)
- Vision for Planning Evolution (pg 8)

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Introduction - Guiding Principles

Principle	Does the requirement or activity…
Flexibility	Allow for plans to evolve as the state of the distribution system changes? Allow for variance among utilities? Accommodate changes over time in variables such as technology and costs?
Practicality	Deliver information that is usable by utilities and stakeholders? Appropriately weigh complexity and cost? Streamline regulatory efforts?
Efficiency	Achieve efficient integration of distributed energy resources (DERs) and accelerate decarbonization? Lead to more efficient operation of the distribution system?
Transparency	Yield results that improve insight? Deliver information needed to holistically understand long-term distribution system plans?
Inclusion	Meaningfully include a broader range of participants? Remove barriers to public participation to ensure all voices are heard in the decision-making process?

Appendix 1 - Draft Guidelines

Procedural Elements	Substantive Requirements
1 – Process and Timing	3.1 – Baseline Data and System Assessment
2 – Commission Action	3.2 – Load, Distributed Energy Resource (DER), and Electric Vehicle (EV) Forecasting
	3.3 – Hosting Capacity Analysis
	3.4 – Community Engagement Plan
	3.5 – Grid Needs Identification
	3.6 – Solution Identification
	3.7.1 – Near-Term Action Plan
	3.7.2 – Long-Term Distribution System Plan

Procedural Elements

1. Process and Timing

- Biennial filing with robust stakeholder engagement
- Staff recognizes the need to synchronize with the IRPs, invites feedback on timing of future filings

2. Commission Action

- Initial Plans will be reviewed for acceptance
- Future acknowledgement of Plans

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Baseline Data and System Assessment – 3.1

- Intent: Understanding current systems, investments and DER levels to serve as a benchmark
- Implementation: Consolidates related reporting of Smart Grid, TE, net metering and small generator reports. Describes physical assets and operations, current performance measures, control and communications systems, spending, DER systems interconnected, TE infrastructure summary, demand response performance
- Evolution: Aligned with Figure 1

Baseline Data and System Assessment – 3.1

Figure 1

Baseline Data and System Assessment	
Stage 3	Refine asset financial planning processes and strengthen relationships with DER planning and integration processes.
	Use software systems to proactively monitor and support operation of the distribution system and DERs.
Stage 2	Share asset financial planning processes and show relationships with DER forecasting and planning processes.
	Leverage remote sensing technologies to provide detailed insight on physical infrastructure to support efficient operation of the distribution system.
Stage 1	Identify the existing grid equipment inventory and financial data with locational granularity, and DER-related data.
	2021 · 2023-2027 · 2029 and beyond

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Load, DER, and EV Forecasting – 3.2

- Intent: Recognize importance of DER/EV adoption on load forecasting, and better account for this impact
- Implementation: Flexibility in methodology to apply a locational aspect, and granularity
- Evolution: Aligned with Figure 2

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Load, DER, and EV Forecasting – 3.2

Figure 2

Load, DER, and EV Forecasting			
Stage 3			Refine hybrid to allow more granular locational and temporal forecasts, aiming for consistent outputs across utilities.
Stage 2		Identify potential locational system benefit from strategic placement of DERs on the distribution grid.	
		Examine data to better understand opportunities for customer participation by energy-burdened households.	
		Leverage both top-down forecasts and bottom-up customer models to build forecasts (approaches may be specified).	
Stage 1	Allocate system-wide DER forecasts from utility IRP filings to greater locational granularity.		
	Document forecasting process and indicate existing and anticipated constraints on the distribution system.		
	2021	2023-2027	2029 and beyond

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Hosting Capacity Analysis – 3.3

- Intent: Identify areas in which it is hard to interconnect (short term), plan for HCA (medium term)
- Implementation: Includes opportunity to accelerate testing/deployment of HCA through pilot or demonstration
- Evolution: Aligned with Figure 3

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Hosting Capacity Analysis – 3.3

Figure 3

Hosting Capacity Analysis	
Stage 3	Comprehensive hosting capacity considering both distribution and transmission.
	Increased level of detail regarding distribution constraints, asset performance, and DER performance metrics. Address emerging technology development.
	Maps indicate node/section-level hosting capacity.
	Update and publish hosting capacity maps and datasets sufficiently accurate and frequent to streamline interconnection.
	Conduct system-wide hosting capacity evaluations as a planning use case to guide DSP investments.
Stage 2	If determined through Docket UM 2111, conduct hosting capacity analysis as an interconnection use case; publish hosting capacity maps with greater detail over time. Update areas with greater/faster DER adoption more frequently.
	Include distribution-level impacts to the substation and transmission system.
	Conduct hosting capacity evaluations to inform distribution system investment plans, and to enhance distribution system visibility when determining locations for future DER.
Stage 1	Conduct a system evaluation to identify areas of limited DER growth.
	Provide a plan to conduct hosting capacity evaluations in the near-term considering both the planning use case for DSP investments, and interconnection use case. Plan may address alternate tool options that may provide more approachable and instructive data for communities.

	2021	2023-2027	2029 and beyond

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Community Engagement Plan – 3.4

- Intent: Encourage community-centered needs and opportunities in utility Plan development and projects implementation
- Implementation: Requires workshops for Plan development, and Community Engagement Plan focused on project engagement, documentation and data development
- Evolution: Move towards planning process in which community needs and opportunities inform investment and implementation through co-created solutions

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Community Engagement Plan – 3.4

Figure 4

Community Engagement			
Stage 3			Utilities collaborate with community-based organizations and environmental justice communities so that community needs inform DSP project identification and implementation. "Community needs" could address energy burden, customer choice and resiliency.
Stage 2		Reflecting UM 2005 outreach requirements, utility holds ongoing community stakeholder meetings during grid needs assessment, solution identification, and action planning.	
		Utilities and OPUC agree on community goals, project tracking and coordination activities.	
		Conduct baseline study to increase detailed knowledge of service territory communities. Utilize paid 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.	
Stage 1	Hold two 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	2023-2027	2029 and beyond

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Grid Needs Identification – 3.5

- Intent: Identify the technical requirements that must be addressed to ensure a safe, reliable and resilient system
- Implementation: Includes pilot grid needs assessment process with input and expertise from community-based organizations (CBOs)
- Evolution: Aligned with Figure 5

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Grid Needs Identification – 3.5

Figure 5

Grid Needs Identification			
Stage 3			Identify grid needs and present a summary of prioritized grid constraints, utilizing prioritization criteria such as community priorities, equity analysis, constraints on DER adoption, and evolving public policy goals.
			Provide new datasets and analysis responsive to OPUC, community inputs and policy evolution.
Stage 2		Develop robust “future state” data needs, including inputs in the following categories:	
		Perform equity analysis overlaying customer geographic and socio-economic data relative to system reliability and customer options. Make findings publicly available.	
		Needs identification includes results of community needs assessments, DER forecasting, and equity analysis.	
		Identify grid modernization needs and present a summary of prioritized grid constraints and opportunities publicly.	
Stage 1	Pilot grid needs assessment with CBO expertise to increase learnings about community needs within service territory.		
	Present summary of prioritized grid constraints publicly, including criteria used for prioritization.		
	Document process and criteria used to identify grid adequacy and needs. Discuss criteria used to assess reliability and risk, and methods and modeling tools used to identify needs.		
	2021	2023-2027	2029 and beyond

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Solution Identification – 3.6

- Intent: Transparently identify proposed solutions to address grid needs
- Implementation: Includes two proposals for pilots of non-wire solutions
- Evolution: Aligned with Figure 6

Solution Identification – 3.6

Figure 6

Solution Identification			
Stage 3			Co-develop solutions with communities and community-based organizations.
			Streamline and refine non-wires solutions and aggregations of non-wires solutions to defer distribution system upgrades.
Stage 2		In assessing options for distribution system pilots, projects, engage community organizing experts to gain input from potentially impacted communities.	
		Prior to filing, publicly present data used to identify distribution system investments, and understand data most useful to stakeholders.	
		Co-develop solutions with communities and community-based organizations.	
		Utilize non-wires solutions to defer distribution system upgrades. Includes harnessing DERs for voltage support and frequency event support.	
Stage 1	Make detailed datasets publicly available and host a listening session/workshop describing data used in investment decisions. Stakeholders provide feedback on what data would be useful to them. OPUC determines if additional datasets are necessary and may direct utilities to submit them in the next Distribution System Plan filing.		
	Provide summary and description of data used in distribution system investment decisions such as: feeder level details (e.g., customer types on feeder, loading information), DER forecasts and adoption.		
	Document the process to the range of possible solutions to address grid needs. For larger projects, engage with communities early in solution identification. Facilitate discussion of proposed investments that allow for mutual understanding of the value and risks associated with resource investment options.		
	2021	2023-2027	2029 and beyond

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Near-Term Action Plan – 3.7.1

- Intent: Present proposed solutions to address grid needs, as well as other investments. Details projected spending, timeline and anticipated cost recovery mechanism in 2-4 year Action Plan
- Implementation: Includes documentation of current innovations and pilots to improve and enhance the grid
- Evolution: Staff will work with parties over time to further develop to increase efficiency and usefulness

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Long-Term Distribution System Plan – 3.7.2

- Intent: Encourage integrated, long-term planning for the distribution system
- Implementation: Includes opportunity to share utility goals and strategies. Requires roadmap of planned investments and activities over 5-10 year horizon
- Evolution: Staff will work with parties over time to further develop to increase efficiency and usefulness

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Clarifying Questions

- Ground Rules
  - Keep your line on mute when not speaking
  - Be mindful of all parties present, and share available time so everyone can contribute
  - Limit comments to <u>three</u> minutes to allow all participants to speak
  - Support queue of speakers and facilitator’s lead - Raise Hand in Zoom or identify yourself on phone when prompted

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Open Comments from Parties	2:30 - 3:25
Wrap up and Next Steps	3:25 - 3:30

Break time

Open Comments

- Priority to those unable to attend the full meeting
- Ground Rules
  - Keep your line on mute when not speaking
  - Be mindful of all parties present, and share available time so everyone can contribute
  - Limit comments to three minutes to allow all participants to speak
  - Support queue of speakers and facilitator’s lead - Raise Hand in Zoom or identify yourself on phone when prompted

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Next Steps

- Comments on Draft Guidelines due October 29 – See next slide
- Dec. 1 – Revised Guidelines published
- Dec. 15 – Guidelines presented to the Commission
- Q4 2021 - First Utility DSP Plans filed

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Public Comment Instructions

- Please submit all responses no later than Thursday, October 29, 2020
- Written comment may be provided in the following ways:
  - By email – puc.publiccomments@state.or.us
    - Please include "COMMENTS – DOCKET NO. UM 2005" in the subject line, so they may be properly filed in this docket.
  - By Mail – Oregon Public Utility Commission, Attn: UM 2005 Draft Guidelines Public Comment, PO Box 1088, Salem, OR 97308-1088
  - By Phone – 503-378-6600 or 800-522-2404 or TTY 800-648-3458, weekdays from 8 a.m. - 5 p.m. Pacific

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Thank You!

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