



AR 654 – Division 87 Administrative Rules for Transportation Electrification Planning

Draft Staff Guidance Document on Implementation of New Rules

August 2, 2022

I. INTRODUCTION

Staff of the Oregon Public Utility Commission presents this draft of the Guidance Document that will be used by utilities, stakeholders, and Staff in the preparation and analysis of utility transportation electrification (TE) Plans. This draft will be the focus of discussion for the public hearing in this docket scheduled for August 9, 2022. Staff looks forward to utility and stakeholder input on this draft to inform the final version of the document, which will be appended to Staff’s Memo for the August 23, 2022, Public Meeting.

II. BACKGROUND

The Commission opened a permanent rulemaking, Docket No. AR 654, in Order No. 21-484 to update Division 87 of Chapter 860 of the Oregon Administrative Rules that govern TE. In its Public Meeting Memo recommending the opening of the rulemaking, Staff committed to bringing a Guidance Document to the Commission for approval.¹ This Guidance Document is intended to work alongside the Division 87 rules to provide implementation-level detail that has more flexibility than the administrative rules. The Guidance Document includes:

- Use of the Transportation Electrification Infrastructure Needs Analysis (TEINA) as Commission-approved tool to estimate public infrastructure need and maximum level of investment
- Benefic/cost analysis
- Metrics for use in tracking progress of portfolio performance areas
- Definition of “underserved communities” beyond that contained in the statutory language
- Equity considerations for outreach and investments
- Electric Vehicle (EV) adoption, load forecasting and power flow analysis guidance
- Guidance on utility fleet electrification

¹ See Docket No. AR 654, OPUC Staff, Staff Report, April 29, 2022, p 3.

Clean Fuels Program: Modification to Program Design Principles and Selection Process

Along with the Guidance Document contained in this draft, Staff would like to share with stakeholders and utility Staff's intentions to request the modification of Commission Order No. 18-376. This Order sets out the Program Design Principles and Program Selection Process for utility participation in the Clean Fuels Program (CFP) administered by the Oregon Department of Environmental Quality. Staff will recommend two modifications to this Order in Staff's Memo for the August 23, 2022, Public Meeting.

Staff has two modification recommendations to Order No. 18-376 to align the requirements from the Order with the new Division 87 rules and the Guidance Document. First, Staff plans to recommend the Commission rescind the fourth program design principle, which states, "Programs are designed to be independent from ratepayer support."² Staff finds that this requirement unnecessarily prevents the full integration of utility portfolios of TE activities. By removing this design principle, utilities will have more flexibility when interaction of ratepayer and CFP funding helps advance the other five program design principles set forth in Order No. 18-376.

Second, Staff plans to recommend the Commission rescind the review process prescribed in Order No. 18-376. The format for stakeholder review and input on how utilities spend CFP credit revenue from residential customers will be replaced by the new process outlined in Division 87. This change is expected to improve stakeholder participation by streamlining proceedings. Staff also intends the change to improve context for stakeholder engagement by allowing stakeholders to provide feedback on all utility TE portfolio activities in a single docket.

Staff looks forward to discussing these recommendations at the public hearing August 9, 2022. These two changes are consistent with the transportation electrification investment framework principle of maximizing external funding.³ The maximization of residential CFP credit revenue will continue to be prescribed by the remaining Program Design Principles of Order No. 18-376.

III. STAFF GUIDANCE

Use of TEINA as Commission-approved tool to estimate public infrastructure need and maximum level of investment

As referenced in draft rule Section 20(a)(F), utilities should use a Commission-approved tool to assess the charging infrastructure need in an electric company's service territory. The Oregon Department of Transportation's (ODOT) Transportation Electrification Infrastructure Needs Analysis (TEINA) will serve as this tool, providing a minimum level of rigor and granularity for estimating charging infrastructure need.⁴ This will establish the maximum infrastructure need for a given year, and utilities should adapt this level based on the utility's forecast of EV adoption in its service territory. TEINA will serve as a maximum "guardrail" on TE Budget approval for public charging.

² See Docket No. UM 1826, OPUC, Order No. 18-376, October 12, 2018, p 6: UM 1826, ORDER, 10/12/2018 (state.or.us).

³ See Docket No. UM 2165, OPUC Staff, Staff Report, December 7, 2021, p 15.

⁴ ODOT. *Transportation Electrification Needs Analysis (TEINA)* June 28, 2021, https://www.oregon.gov/odot/Programs/Documents/Climate%20Office/TEINA_Final_Report_June282021.pdf.

Staff views TEINA as the most rigorous available approach to establishing public charging infrastructure need in Oregon. TEINA is also the best currently available means of establishing a spending guardrail linked to the state's EV infrastructure needs. Staff recommends the use of TEINA because it is flexible and capable of incorporating updated information as the EV market evolves.⁵

Staff provides this guidance for using TEINA to assess the charging need in a utility's service territory:

- Utilities' use of TEINA should incorporate the tool's method, not necessarily its inputs. All assumptions ODOT made should be reviewed with the best and most current evidence utilities have available. The most reasonable assumptions should be used. For example, ODOT used the state LDV EV goals from Senate Bill (SB) 1044 as a what-if scenario for EV adoption rather than make a forecast of EV adoption. Utilities will need to update TEINA with the latest estimate of expected EV adoption in each companies' service territory.
- ODOT has made the analysis of this research available as a public facing spreadsheet. Electric companies are free to improve upon TEINA by customizing the tool in ways that do not reduce granularity.
- An important output that TEINA produces is the needed port count per census tract by use case. Utilities will use this to show how infrastructure need is distributed across their service territories.
- In addition to the boundary of infrastructure need, the reasonableness of a TE Budget will also be informed by the availability of external funding. This includes CFP credits, grants, and program participants' contributions. Utilities need to avoid ratepayer subsidization of charging infrastructure that a program participant is required to install due to a building code.

Benefit/Cost Analysis

In order to provide increased transparency into the range of relative benefits and costs of a proposed TE portfolio, Staff's draft rules require that utilities perform standard costs tests for program and infrastructure measures, when possible. This should include a Societal Cost Test, which adds the net social impact of electric company TE activities to a Total Resource Cost Test (TRC).

Utilities should not include expenditures of credit revenue from Oregon's Clean Fuels Program as costs in their SCT. Staff takes this position because, as external funds, CFP credit revenue does not require recovery from ratepayers. Utility participation or nonparticipation does not affect the cost to Oregonians of the CFP because unclaimed credits would otherwise go to DEQ's backstop aggregator.

At this time, Staff will not use benefit/cost analysis as the basis for recommending whether the Commission should approve a TE Budget. Public review of utility benefit/cost analysis in the 2022-2025 TE Plans will enhance an ongoing discussion about how this analysis will later serve in budget development. Staff will hold workshops on the development of a jurisdiction-specific test that aligns

⁵ See Docket No. UM 2165, OPUC Staff, Staff Report, December 7, 2021, p 14.

best practices in benefit/cost analysis with Oregon-specific policy requirements and goals. Staff envisions this benefit/cost test will replace the current budget approach as the required mechanism for developing and evaluating TE Budgets. Staff envisions collaboratively developing this benefit-cost framework for review of 2026-2028 TE Plans and Budgets.

Metrics for Portfolio Performance Areas

The draft rules contain seven performance areas but do not specify metrics for their tracking or assessment. PGE, Pacific Power, and stakeholders met to craft metrics that stakeholders want to see reported.⁶ Those metrics are listed below. In several cases, Staff suggests minor additions to the proposed metrics, and notes this accordingly. Staff wishes to publish this content now for all stakeholders to have the opportunity to provide comment on this work.

Stakeholders and utilities stated several key goals for the development and use of the performance metrics. These goals are to: monitor utility performance through the discussion of performance areas within TE Plans, establish targets within TE Plans, and track metrics within TE Plan Reports. Secondly, the metrics will consistently track and report on performance metrics to establish baseline data. The metrics are intended to utilize data to evaluate utility TE portfolio outcomes and gaps, and inform recommendations. Finally, stakeholders and utilities intend to prioritize metrics that assess an equitable distribution of benefits and burdens as well as affordability.

Stakeholders and utilities proposed three kinds of metrics which they characterized as follows.

Performance Metric	<ul style="list-style-type: none"> - Measures of direct outputs of utility activities - Metric is mature enough to enable target-setting - Can be used in reporting and assessment of portfolio success or sufficiency - Utility forecasts metric performance for the proposed TE portfolio as part of the TE plan, then reports on progress - Assessed at a TE portfolio level - Related to programmatic activity and used in evaluation of TE portfolio
Baselining Metric	<ul style="list-style-type: none"> - Measures of outputs of utility activities - Metric is not yet mature enough to enable target-setting, or measures progress over a long time-horizon - May be turned into a performance metric at some future point - Not used in assessing portfolio success or sufficiency - Utilities do not forecast metric performance, but do report on progress - Related to programmatic activity, but not used in evaluation

⁶ See Docket No. UM 2165, Joint Utility and Advocates, *TE Portfolio Metrics*, July 22, 2022.

Tracking Metric	<ul style="list-style-type: none"> - Not used in evaluating the TE portfolio because utility programs and investment are not able to significantly influence that variable, or measurement is impractical - Utility reports metric as part of TE plan - Assessed at a state/service area level - Included to track a key issue, but not used in evaluation
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Stakeholders and utilities developed the following metrics, associated with each of the seven portfolio performance areas listed in Section 20(a)(A-G) of the draft Division 87 rules.

a. Environmental benefits including greenhouse gas emissions impacts (860-087-0020(3)(c)(A))

Metric: GHG emission and air pollution reductions estimated from all EVs registered in a utility service area.

Type of metric: Tracking

Additional considerations: As a starting place, estimate criteria pollutants from tailpipe emissions including PM 2.5, SOx, and NOx from all EVs registered in a utility service area. Note that Staff provides the suggested addition of the criteria pollutant sulfur dioxide (SOx) here.

b. Electric vehicle adoption (860-087-0020(3)(c)(B))

Metric: Stakeholders and utilities proposed that this performance area not have associated metrics.

Additional considerations: Staff notes that utilities should report on this performance area by describing how the TE Plan impacts the adoption of electric vehicles across all use cases. Staff also suggests that utilities show the assumptions behind miles driven and kWh sales.

Finally, Staff notes that utilities should file TE Reports that compare actual annual results versus forecast for all performance areas. TE Reports should compare annual forecasted versus actual EV adoptions in the utility’s service territory.

c. Underserved community inclusion and engagement (860-087-0020(3)(c)(C))

Metric: Outreach, capacity building to and participation of underserved communities, low-income service providers, community-based and community service organizations, non-profit organizations, small businesses (particularly minority and women owned businesses), and tribes in the development and implementation of a utility TE portfolio.

Type of metric: Baseline metric

Additional considerations: Metric may result in a qualitative description of how the utility has conducted these activities in the development and implementation of its TE portfolio.

d. Equity of program offerings to meet underserved communities (860-087-0020(3)(c)(D))

Metric: Percent of program-enabled ports by use case located within and/or providing direct benefits and services to underserved communities or communities identified using a Commission-approved tool.

Type of metric: Baseline metric

Additional considerations: Use cases include residential, multifamily, workplace, corridor, non-corridor public, light-duty vehicle (LDV) fleet, and medium- and heavy-duty vehicle (MHDV) fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.

Metric: For transit agencies who have participated in a utility EV program during the portfolio period, the transit agencies' annual service hours, number of routes, and number of routes serving underserved communities, to the extent this information is provided to the utility.

Type of metric: Tracking metric

Additional considerations: Decisions regarding a transit agencies' annual service hours, number of routes, and number of routes serving underserved communities are generally outside of the utilities control. Tracking this metric is intended to assess complementary services (i.e., transit service and transit electrification) and identify gaps in services. This metric does not suggest that there is a correlation between transit service changes and electrification of buses.

Metric: Types of electric transportation technology supported by a utility portfolio as a percent of total investments, organized into categories such as micromobility, passenger vehicles, light-duty fleet vehicles, medium- and heavy-duty fleet vehicles, school buses, and transit buses.

Type of metric: Baseline metric

e. Distribution system impacts and grid integration benefits (860-087-0020(3)(c)(E))

Metric: Percent of program-enabled charging load that occurs off-peak, by use case.

Type of metric: Performance metric

Additional considerations: Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.

Metric: Total EV load enrolled in managed charging, and potential for managed charging. Estimated percent of EV load enrolled in managed charging.

Type of metric: Performance metric

Additional considerations: Managed charging includes direct load control, vehicle-to-grid, and behavioral demand response. Managed charging does not include time of use rates.

f. Program participation and adoption (860-087-0020(3)(c)(F))

Metric: Number of program-enabled ports by use case.

Type of metric: Performance metric

Additional considerations: Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.

Metric: Percent of total public ports by use case within utility service territory that are program-enabled.

Type of metric: Baseline metric

Metric: Number of participants in utility programs, broken down by program and underserved community status.

Type of metric: Baseline metric

g. Infrastructure performance including charging adequacy, reliability, affordability, and accessibility (860-087-0020(3)(c)(G))

Metric: Price (\$/kWh) to charge at program-enabled ports by use case.

Type of metric: Baseline metric

Additional considerations: Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.

Metric: Uptime at utility-owned and supported ports by use case.

Type of metric: Performance metric

Additional considerations: Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.

Staff again notes that utilities should file TE Reports that compare actual annual results versus forecast for all performance areas. TE Reports should compare annual forecasted versus actual EV infrastructure installed in the utility's service territory.

Definitions of Underserved Communities

Section 2 of HB 2165 defines “underserved communities” as residents of rental or multifamily housing, communities of color, communities experiencing lower incomes, tribal communities, rural communities, frontier communities, coastal communities, and other communities adversely harmed by environmental and health hazards.⁷ The purpose of defining underserved communities is to ensure utilities apply the same assumptions in TE program implementation and performance metrics, to inform these definitions with stakeholder feedback, and to align them with related programs where possible.

Based on stakeholder feedback at meetings and in written comments, Staff suggests further defining these communities as:

- **Residents of rental housing** are people, including a roomer, entitled under a rental agreement to occupy a dwelling unit to the exclusion of others, including a dwelling unit owned, operated, or controlled by a public housing authority.⁸
- **Residents of multifamily housing** are people that reside in a structure or facility established primarily to provide housing that provides more than one living unit and may also provide facilities that are functionally related and subordinate to the living units for use by the occupants in social, health, educational or recreational activities. Multifamily housing includes special care facilities, which are defined by ORS 443.400-445 as, “for the elderly, including but not limited to individual living units within such structures, mobile home and manufactured dwelling parks and residential facilities licensed under ORS 443.400...and other congregate care facilities with or without domiciliary care. For persons with disabilities, including, but not limited to, individual living units within such structures, mobile home and manufactured dwelling parks and residential facilities licensed under ORS 443.400...other congregate care facilities with or without domiciliary care. This does not include nursing homes, hospitals, places primarily engaged in recreational activities and single-family, detached dwellings, except manufactured dwellings situated in a mobile home and manufactured dwelling park.”
- **Communities of color** are communities of people who are not identified as White, emphasizing common experiences of racism.
- **Communities experiencing lower incomes** are residential customers whose household income is less than or equal to 120 percent of state median income adjusted for household size.

⁷ HB 2165, Section 2 (6) (a) and (b).

<https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2165/Enrolled>.

⁸ SUGGESTION...possible to note a stakeholder that advocated for this expanded definition? If not, ok to remove.

- **Tribal communities** are Oregon’s nine recognized Native American tribes: Burns Paiute Tribe, Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, Coquille Tribe, Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of the Grand Ronde Community of Oregon, The Klamath Tribes, Confederated Tribes of Siletz, Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Indian Reservation. Or a utility can recognize a credible claim of indigenous descentance by another group.
- **Rural communities** are people residing 30 or more miles by road from an urban community of 50,000 people or more.
- **Frontier communities** are people residing 75 miles by road from a community of less than 2,000 individuals.
- **Coastal communities** are people residing west of Oregon’s Coastal Mountains.
- **Communities adversely harmed by environmental and health hazards** are people residing in a part of Oregon that is adversely affected by criteria pollutants or climate change.

Staff’s guidance on how utilities can define underserved communities geographically will serve in the interim before the Oregon Environmental Justice Council completes a common state mapping tool. The statutory deadline for this mapping tool’s development is September 15, 2025.⁹ Staff will update this guidance as the development of a common environmental justice map for state policy is developed under the direction of HB 4077.¹⁰ Utilities are free to create customized tools for establishing geographic designations of underserved communities provided the utility consults with each community before it geographically defines them.

Staff notes that some of the definitions above are inherently delineated geographically, but for underserved communities that are not inherently spatially defined, utilities should use the Environmental Protection Agency’s EJScreen or ODOT’s TEINA to monitor TE expenditures on underserved communities.¹¹

Equity–Outreach and Investments

Staff includes this guidance for implementation of the portfolio performance area of “Underserved Community Engagement and Inclusion, in proposed rules Section 20(3)(c)(C):

- Utilities should directly consult with representatives of underserved communities to self-identify their priorities for TE programs and infrastructure measures.

¹⁰ See HB 4077 Section 18 (1).

¹¹ See <https://www.epa.gov/ejscreen>

ODOT. *Transportation Electrification Needs Analysis (TEINA)* June 28, 2021, pp 36 and 37.

https://www.oregon.gov/odot/Programs/Documents/Climate%20Office/TEINA_Final_Report_June282021.pdf.

- Utilities may augment direct engagement with underserved communities with market research to overcome the selection bias that might miss the perspectives of individuals who choose not to attend workshops. Market research is warranted if it can reasonably improve the representation of underserved communities in utility engagement on TE needs.
- The City of Portland’s *Pricing Options for Equitable Mobility (POEM)* process and Greenlining Institute’s *Equity Mobility Framework* provide helpful best practices for utility engagement and distributional equity in TE.¹²

Staff includes this guidance for implementation of the portfolio performance area of “Equity of Program Offerings to Meet Underserved Communities,” in proposed rules Section 20(3)(c)(D):

- Monthly meter charge budget expenditures established under HB 2165 serve as a minimum standard for spending to support TE in underserved communities. Staff suggests another means of tracking equity of investments is for utilities to use, as a benchmark, the TEINA needs-based analysis. Utilities can target a percentage of infrastructure buildout by census track, as compared to the need modeled by the TEINA tool. In this case, utilities can target investment in census tracks that meet demographic and income-related need.
- Staff supports utility plans to increase EV access and adoption in historically underserved communities. Staff recommends that utilities develop a map that overlays the location of TE spending, EV infrastructure, and EV adoption on top of demographic/underserved community GIS layers.
- Staff supports the metrics proposed by stakeholders and utilities for this performance area, as described on page five of this document.
- Staff supports Joint Party guidance on attributes of TE proposals for underserved communities, as filed in DEQ’s 2020 CFP rulemaking proceedings. Joint Parties asserted that TE proposals should include “complete description of the project, the demonstration that the project promotes transportation electrification in communities that are most vulnerable to the impacts of climate change, tribes, low-income communities, rural communities, and other underrepresented communities or provides increased access to electric transportation for low-income individuals, and evidence that the project was developed in coordination with local environmental justice advocates, local community-based organizations, and local municipalities.”

EV Adoption, Load Forecasting and Power Flow Analysis

Electric utilities currently file Distribution System Plans every two years. Under the new rules adopted in Division 87, utilities are required to file TE Plans every three years. As a result, EV adoption forecast and power flow analysis to estimate infrastructure need and distribution system costs will not be available in

¹² See Pricing Options for Equitable Mobility, <https://www.portland.gov/transportation/planning/pricing-options-equitable-mobility-poem>.

Mobility Equity Framework: Making Transportation Work for People, <https://greenlining.org/publications/2018/mobility-equity-framework>.

years that the two plans do not coincide. In those years, utilities should perform a new EV adoption forecast and power flow analysis to model the impact of TE on the distribution system.

Electrification of Company Fleets

Electric company expenditures on the electrification of their own fleet of vehicles are not required in the TE Budget. Instead, the TE Budget offers utilities an option to have expenditures on fleet electrification beyond the internal combustion engine alternative to be weighed from the perspective of supporting TE. If the Company chooses to include fleet electrification in its TE Budget, Staff will take that into account during the Company's next General Rate Case when determining whether that investment was prudent.

IV. CONCLUSION

Staff looks forward to utility and stakeholder feedback on this draft document and will present the final version and order modification recommendation in its Public Meeting Memo for the August 23, 2022, Public Meeting.