May 2, 2023,
Via Electronic Filing

Oregon Public Utility Commission
201 High St. SE, Suite 100
Salem, OR 97301-3398

Re: Docket LC 80: Comments on Portland General Electric's Clean Energy Plan and Integrated Resource Plan

The NW Energy Coalition, Green Energy Institute at Lewis & Clark Law School, Oregon Solar + Storage Industries Association, Climate Solutions, Ecumenical Ministries of Oregon, Community Energy Project, Rogue Climate, Coalition of Communities of Color, and Multnomah County Office of Sustainability (Energy Advocates) appreciate the opportunity to provide the below comments on Portland General Electric's Clean Energy Plan (CEP) and Integrated Resource Plan (IRP) under docket LC 80. Below, the Energy Advocates present some of the questions, concerns, and recommendations that we have for PGE regarding its CEP/IRP and look forward to PGE's response. We include our key asks at the top of this document with more in-depth responses and questions below that are presented in the order of chapters that PGE included in its CEP/IRP.

I. Top Line Recommendations

1. PGE should modify the CEP so that any person can read and understand it without having to also read the IRP;
2. PGE should clearly outline in its CEP how it is advancing distributional justice;
3. PGE should consider an additional environmental informational community benefit indicator. We provide a few examples in the list that PGE refers to;
4. PGE should specify in this CEP its methodology for tracking continual progress in interim years via emissions reductions (as opposed to resource procurement);
5. PGE's "two track" process for undertaking the 2023 RFP before robust review of the CEP and IRP is concerning. Energy Advocates support the Commission's preference for acknowledgment of the 2023 IRP/CEP before the company seeks acknowledgment of its shortlist in the UM 2274 procurement;
6. We recommend more granularity about how PGE prioritizes among the enabling decarbonization strategies. We recommend the following prioritization: (1) help reduce load and demand by supporting customer adoption of energy efficiency, demand response, and customer-side resources; (2) optimize the use of existing clean energy generation and transmission infrastructure; (3) invest in new clean energy and capacity resources to replace fossil fuel generation;
7. PGE proposes to procure 100% of cost-effective EE and DR. The CEP acknowledges that additional increments of energy efficiency and demand response may lower long-term costs compared to alternative resource options. Energy Advocates suggest, therefore, that it is appropriate for PGE to acquire EE and DR referred to as "non-cost-effective." Despite these resources not meeting current cost-effectiveness

criteria, they do reduce the risk of increased costs to customers associated with purchasing supply-side resources in the future, and delays expensive investments in transmission infrastructure, mitigates against the risk that transmission and generation assets might be delayed in construction, or might not be available when needed.

II. Questions and Recommendations on PGE's CEP/IRP – Chapter by Chapter Approach

Chapter 1: Clean Energy Plans

The Energy Advocates appreciate PGE's efforts to produce the first iteration of a CEP in Oregon, and we offer the feedback in this section in hopes of further strengthening it. HB 2021 is an environmental-justice led policy, so we request that energy justice principles are applied and centered in this transition to clean energy and in the processes leading up to it. At a high level, we encourage PGE to revise its 2023 CEP in consideration of energy justice principles like recognition, distributional, restorative, and procedural justice. We address each of these in turn below.

PGE's 2023 CEP should be a roadmap to HB 2021 compliance that on its own allows people to engage in the process. PGE's 2023 CEP successfully conveys the enormity of the transformation ahead and provides a helpful summary of actions that PGE plans to take. However, it is not possible to engage with or provide feedback on the actions in the CEP without engaging with the IRP. For example, understanding how PGE arrived at its CBRE targets, or why PGE decided to pursue an RFP for CBREs, requires a reader to also review the IRP. In this sense, PGE's CEP does not serve as a stand-alone roadmap that offers a sufficient understanding of PGE's plans, or empowers the reader to provide feedback, even at a relatively high level. We encourage PGE to revise its CEP with the goal of enabling the reader to engage in this process based on the CEP alone, while the IRP can remain a resource for those looking for a deeper understanding of the technical and analytical foundations that support the content of the CEP.

PGE should also revise its CEP to make it more accessible to non-expert members of the public in ways that we suggest throughout these comments. Utility regulation processes are notoriously complex, even for those who engage in them as part of their paid job. Procedural justice calls for procedures that are equitable and accessible to all stakeholders. Energy Advocates include a group of co-facilitators that have been working with grassroots energy justice advocates from across the state, all of whom are eager to help shape Oregon's transition to clean energy. As currently written, the CEP is not accessible to lay people like the majority of the community cohort participants. This level of accessibility limits the ability of community members to offer feedback on how proposals within the CEP can better meet their needs and expectations. We encourage PGE to revise its CEP with the assistance from organizations and practitioners with expertise in communicating about energy in more accessible ways.

We encourage PGE to more directly outline how its CEP advances distributional justice. PGE's CEP acknowledges that the climate crisis disproportionately impacts environmental justice communities and mentions community benefits. However, it does not clearly outline what specific actions PGE is taking that create direct benefits to environmental justice communities. We appreciate seeing the CBR-RFP and the focus on that type and scale of resource. However, we do not see in the CEP our feedback that PGE takes steps or outlines specific actions—such as program concepts with preliminary budgets—that will bring benefits to environmental justice communities beyond the status quo.

We want to see PGE identify in the CEP what the company is doing differently moving forward to move the needle on CBIs and place benefits from this clean energy transition directly in the hands of environmental justice communities. We also want to see the CEP highlight how PGE is removing barriers to community programs and initiatives (ie. addressing interconnection barriers that could impact projects funded by PCEF) and also seeking to realize those EJ community benefits. A successfully revised CEP would clearly outline how the utility is addressing issues that impact the everyday existence of people by, for example, reducing the likelihood of outages in historically underinvested areas, creating options for when outages are unavoidable, making energy efficiency, distributed renewables and storage more accessible than they are under the status quo to EJ communities, etc.

Chapter 5: Greenhouse Gas Emissions

Continual Progress

We generally find the five glidepaths presented to be appropriate. We note, however, that in Order 23-060 the Commission stated a preference for year-over-year emissions reductions. We, therefore, expect that PGE will state a preference for, and strive toward, a glidepath consistent with year-over-year emissions reductions.

We note that PGE states that it will measure continual progress based on its procurement rate of non-emitting resources. However, the standard enshrined in HB 2021 for continual progress is based on *emissions reductions,* not *resource procurement*. Specifically, a CEP must:

> Demonstrate the electric company is making continual progress within the planning period towards meeting the clean energy targets set forth in section 3 of this 2021 Act, including demonstrating a projected reduction of annual greenhouse gas emissions.[1]

While we understand that there is a relationship between the amount of clean energy that PGE procures and its emissions, we do not believe that PGE has demonstrated how procuring more supply-side clean energy resources will reduce its emissions. For example, *will these resources reduce thermal resource dispatch? Will they result in earlier retirement of emitting resources? How will supply-side resources be optimized with customer-side resources to deliver a balanced portfolio of clean energy resources*

[1] HB 2021 Section 4(4)(e), ORS 469A.415(4)(e).

over the planning cycle? PGE utilizes models to, in part, choose least emitting resources, and resource planning is an important part of HB 2021 compliance. However, resource planning itself does not constitute continual progress. Only emissions reductions constitute continual progress per the aforementioned provision of HB 2021. *PGE should specify in this CEP its methodology for tracking continual progress in interim years via emissions reductions.*

Thermal Facilities

We urge PGE to transparently address the continued operation of its thermal facilities in Oregon, including the various markets for energy generated from those facilities and associated emissions. Table 124 of the CEP displays the percentage of retail sales from the Carty and Beaver gas-powered facilities forecasted for 2027. By that year, the forecast shows that 77% of the generation of those plants will be allocated to retail sales. The inference is that the remaining 23% would account for sales to wholesale markets, either within or outside of Oregon. However, this differential is not stated, and elaboration is not provided. During the roadmap workshops held in the UM 2225 docket, stakeholders and staff clearly indicated the need for transparency around utilities' forecasted use of thermal facilities, including the breakdown of sales to retail, wholesale, and out-of-state markets, including associated GHG emissions for each geography. This breakdown should also include additional information regarding PGE's modeling that accounts for differences in the regulation of GHG emissions associated with serving Oregon retail customers and wholesale market sales. To the extent that PGE's thermal facilities continue to emit greenhouse gasses in Oregon while serving unregulated or out-of-state load, the PUC will need to account for these impacts when evaluating whether PGE's CEP and its participation in organized wholesale markets are in the public interest.

Additionally, we have several follow-up questions concerning PGE's explanation that GHG emissions from generation and power purchases can fluctuate year to year, often due to variations in economic conditions, temperature, wind/solar conditions, regional hydroelectric generation levels, and other factors beyond the control of PGE.[2] This issue is more fully discussed next.

First, in Appendix I, PGE provides an example that in the year 2030, PGE may have a power system that emits 1.2 MMT of CO2e, but due to extreme temperature conditions, the system may emit more GHGs. We recognize that the Commission has established that utilities should "achieve the 2030 and 2035 clean energy targets under typical or expected weather and hydro conditions."[3] *However, areas outside of the Pacific Northwest face different climate impacts. To what extent can emissions be reduced by procuring resources from a larger market footprint, which allows for more resource diversity and less dependence on regional hydroelectric generation levels?*

[2] CEP and IRP at 90.

[3] In the Matter of Public Utility Commission of Oregon, House Bill 2021 Investigation into Clean Energy Plans, Docket No. UM 2225, Order No. 22-446 (Nov 14, 2022), Appendix A at 31, available at: https://apps.puc.state.or.us/orders/2022ords/22-446.pdf

Appendix I also states that the C-level analysis takes "GHG variations from temperature and hydrological conditions into consideration. It does not include GHG variations from any other factors. As a result, the actual range of GHG variation is likely larger."[4] *What other factors are there to consider or account for? Are there models that would take these factors into account? We recognize that it is unlikely cost-effective to model all factors, but it would be helpful to know what factors could be modeled but are not, as this analysis may change over time.*

Third, pursuant to HB 2021's requirement in Section 4(4)(c) to conduct a risk-based analysis, *PGE should expand on these potential limiting factors and forecast, to the extent possible, their impact on the decarbonization glidepaths, and include applicable strategies for mitigating their impact on emissions reductions.*

Finally, in section 5.2.2 Unspecified sources, PGE states that its unspecified sources (a source of electricity that is not a specified source at the time of the entry into the transaction to procure the electricity) typically come from short-term market purchases, including the EIM. PGE explains that all unspecified market purchases receive the ODEQ-specified rate of 0.428 metric tons per MWh, and this rate is not updated at regular intervals.[5] PGE states that, as a result, certain MWh may receive a higher CO2e intensity than the actual CO2e. We recognize that the EIM delivers renewable energy sources. We appreciate PGE participating in CAISO-led discussions to develop better market rules for tracking and attributing carbon to enhance regional decarbonization efforts and facilitate utility-specific compliance with different state GHG policies and requirements, including improving emissions tracking and accounting across Western markets to provide better visibility into the GHG content of market power. *However, if PGE makes unspecified market purchases outside the EIM, then we recommend that PGE clarify in the CEP that the CO2e intensity could be higher than the ODEQ's specified rate. If this is not the case, please explain.*

Chapter 6: Resource Needs

PGE provides a set of comprehensive and wide-ranging resource needs considering load forecast variables, including rapidly evolving trends (such as those related to COVID-19 or extreme temperatures) and the slower-moving, longer-term trends in energy deliveries and end uses, including transportation electrification, rooftop solar, building electrification, and Distributed Energy Resources.The Energy Advocates appreciate the efforts PGE has taken to identify resource needs that will affect load in the coming years. We are grateful to see work from PGE's Distribution System Plan applied in the Company's Clean Energy Plan. However, we have a few concerns and recommendations to improve this chapter.

Passive DERs

While IEEE-1547, 2018 smart inverter standards have not been required to utilize NEM incentives previously, solar installers in Oregon have utilized smart inverters to connect rooftop

[4] Id. at
[5] PGE, CEP and IRP at 95.

solar systems to the distribution system for years. Additionally, the Oregon Public Utility Commission has nearly completed Phase 1 of UM 2111, which will incorporate IEEE-1547 standards into OAR Division 039. Once that rulemaking is complete, new rooftop systems will be required to utilize a smart inverter that is IEEE-1547 compliant to interconnect and participate in the NEM program. Furthermore, the benefits of distributed energy resources are realized regardless of smart inverters.

Additionally, Oregon prioritized increasing access to rooftop solar for low and moderate-income households. Through incentives provided by the Energy Trust of Oregon, including the Solar Within Reach Program and the Oregon Solar and Storage Rebate, rooftop solar is becoming more accessible, affordable, and is providing direct resiliency benefits to communities.

“NEM incentives do not require customers to comply with IEEE-1547, 2018 smart inverter standards. This prevents rooftop solar from being properly integrated and thus prevents PGE customers from realizing the full benefit of rooftop solar PV. Additionally, and especially with the IRA extending tax benefits on rooftop solar, the cost shift stemming from the current NEM policy will continue to increase inequities across customers and, consequently, energy burden.” We are concerned that PGE is claiming that NEM exacerbates existing inequities without demonstrating that NEM is causing cost-shifting among its customers and whether that cost-shifting is unreasonable or disproportionate when compared to other forms of cost-shifting among customers. *How much does the current NEM policy cause cost shifting? Can PGE provide figures to demonstrate the cost shift caused by NEM?*

Climate Adaptation
“For the 2023 IRP, the model uses the most recent 30 years (1992-2021). The rationale for the switch is that more recent temperature data should better reflect the changing climate.” We agree with using the more recent historical temperature data. Our question is, *how were these historical trends extrapolated into the future to reflect future climate impacts?* While we ask this question, we do recommend that PGE (if not already doing so) fully consider the Northwest Power and Conservation Council’s (the Council) climate-adjusted baseline (approved in 2021) in its modeling. The Council’s modeling includes a climate-adjusted baseline for both loads and resources based on the selection of three global climate models and careful downscaling of their findings with direct assistance from subject experts in climate modeling. The Council also included the social cost of carbon in its modeling, which we support as well. It would be prudent for PGE to adopt this modeling in accordance with the Council.

Qualifying Facility Sensitivities
PGE’s IRP assumes that none of the QFs renew their contracts with the utility. *Why are no QFs expected to renew their contracts? Is there historical data to indicate that no QF contracts will be renewed?*

Chapter 7: CBI & CBREs

Energy Advocates appreciate the work that PGE has put in thus far to determine the various categories of Community Benefit Indicators and their accompanying metrics for the first Clean Energy Plan. We, however, have a few questions and suggestions addressed below.

Resource Community Benefit Indicators (rCBIs)
We are pleased to see PGE's efforts to ensure that CBRE projects are not only included but prioritized in its modeling. However, we would appreciate more clarity on the 10% rCBI adder. We have two questions on this: *first, how did PGE arrive at 10% as the appropriate percentage for the adder? Second, what factors did PGE include in the valuation of CBREs? Did this only include benefits that CBRE projects can provide to PGE, or did it also include benefits to communities that may have CBRE projects or community benefit agreements? If community benefits were considered, how were they identified and correspondingly valued?*

Informational Community Benefit Indicators (iCBIs)
We want to thank PGE for taking some of the CBIs and metrics that we proposed into consideration and for offering a space through the Community Learning Labs for us to collaborate and attempt to identify the first set of iCBIs to be included in PGEs first CEP. While this is a great first step, we continue to have questions and concerns about what is being proposed. Our questions include:

1. *How will baselines for the energy, equity, health & community wellbeing, and economic CBIs be determined?* Some seem straightforward, such as the reduction in disconnections for non-payment and arrearages for customers in EJ communities, while others are not so clear, such as the reduction of energy burden. In any case, Energy Advocates would like to understand how the baseline will be determined and are open to collaboration on this if need be.
2. *How will PGE differentiate between benefits that are brought about through HB 2021 implementation from other processes? For example, how will PGE differentiate between the reduction of energy burden that stems from CEP implementation from that of HB 2475 interim income qualified bill discount programs?*

In addition to our questions above, we continue to encourage PGE to adopt an additional environmental CBI. We have highlighted that the reduction of greenhouse gasses is a given in this process, and that it would be prudent for PGE to add another environmental CBI to its portfolio. We, once again, recommend that PGE adopt an environmental CBI that has been identified by our Tribal partners as important to them. This includes reducing pressure on the Columbia River system. A metric for this can be the reduction in PGE's purchases of power that is generated from the Columbia River hydro system.

Community-Based Renewable Energy (CBREs)
Energy Advocates are intrigued by PGE's approach to procuring CBRE projects. However, we would like to understand PGE's process better and collaborate where it may be useful.

First, we would like some clarity on the CBRE-RFP process. Our questions are:

1. *How will PGE approach co-developing the CBRE-RFP scoring matrix with community members? Will PGE go into its EJ communities to identify partners to engage in this work, will it work through its UCBIAG on this? How can we ensure that this process is executed well and targets input from actual EJ community members?*
2. *Will PGEs collaboration with EJ communities on the CBRE-RFP only be limited to the project scoring matrix?*
3. *Will PGE have a separate process from the CBRE-RFP to go out and solicit or partner with EJ communities on CBRE projects?* Our concern here is that many under-resourced communities do not have the experience or resources to plan and build a CBRE-type project and engage in an RFP and may need some capacity building and resource sharing via partnerships to bring about actual community-owned projects.

We ask these questions in hopes of understanding this innovative approach to procuring projects and to see how we can help elevate this process to ensure that EJ communities are apprised of it and can participate. While we trust PGE will be able to execute this nascent approach to project procurement, we would encourage PGE to make sure that the CBRE-RFP is written in a simple way that EJ community members can understand and effectively participate in. This would also include examining existing barriers in the traditional RFP process and ensuring that they are removed from the CBRE-RFP process. To do this, the Energy Advocates urge PGE to develop the entire CBRE-RFP process with community members, as opposed to just the project scoring matrix.

We would also recommend that PGE look at the list of projects that have received funding from the Oregon Department of Energy CBRE funding as well as Portland Clean Energy Fund projects and invite them to participate in the CBRE-RFP.

Chapter 8: Resource Options

Resource cost and performance parameters for supply-side resources are largely from the National Renewable Energy Laboratory's Annual Technology Baseline (NREL ATB), and the U.S. Energy Information Administration (EIA) overnight capital cost and performance characteristics for 25 electric generator types as used in the Annual Energy Outlook 2020. *Why were 2020 AEO values used rather than more current 2022 or 2023 values?*

As noted on p 175, "Numerous additional changes within the IRA and the IIJA are not currently built into modeling assumptions, including IRA tax credits for Residential Energy Efficient Home Improvement, Distributed Energy Resource (DER) credits, or the impacts of the IRA on rooftop solar, electric vehicles and building electrification." *Do the scenario analyses cover the range of potential IRA impacts?*

In Section 8.6.5 on Resource ownership considerations, the IRP states that "PGE is contemplating submitting a benchmark to encourage competitive bidding and solicitations from a wide range of resource technologies and structures that will provide the best value for customers. PGE is evolving the RFP process to objectively weigh the benefits and risks of the

various ownership structures during the RFP process to make the best decisions about resource ownership for customers." *Energy Advocates seek additional details on how the company is "evolving the RFP" and where those changes are occurring.*

It would also be useful for PGE to discuss more about the issues that must be addressed beyond the expansion of the IRA ta credits for generation. In particular, at least some discussion on early estimates of the effect for EE and DERs.

Chapter 9: Transmission

Energy Advocates would like to elevate comments shared by Renewable Northwest on the value that hybrid renewable-plus-storage resources may have on PGE's transmission system. PGE may very well avoid curtailment and the need to build out more transmission resources by prioritizing the addition of hybrid renewable-plus-storage resources to its system. Additionally, we would encourage PGE to look at existing technologies that can help PGE manage its load better.

In other contexts, PGE has relayed that building out DERs may alleviate the need for a certain degree of transmission needs.[6] *Would PGE include a cross-reference of this discussion within the Transmission chapter? Describing the reduction or avoidance of transmission costs associated with DER projects would be helpful.*

In section 9.4.1, PGE describes that its portfolio modeling indicated a need to expand transmission access to regional resources. PGE states that the ROSE-E has two proxies from which to choose: (1) a Northwest transmission upgrade and (2) purchasing rights on a transmission line to Wyoming or the Desert Southwest.[7] PGE states further that the first option is met with an upgrade to the South of Allston flowgate and would unlock up to 400 MW of Northwest proxy resources. *Can PGE clarify whether additional MW would be available under this option, or is the South of Allston capped (perhaps due to other flowgate congestion) at 400 MW?*

Further, Table 44 describes the Northwest transmission (South Allston) upgrade and purchasing rights to a transmission line to Wyoming or the Desert Southwest. Costs per kW-month are included in the table. *Do the costs in Table 44 for the Generic proxy transmission include the wind energy from Wyoming and solar from Nevada? Said another way, please explain why the costs of the proxy transmission options are so different: $1.97/kW-month for the South Allston upgrade and $20.46/kW-month for the Transmission to Wyoming (similar for transmission to Nevada). An explanation of this difference would be helpful.*

Some Energy Advocates posed a few of these questions at the very useful open houses that PGE held last week. We appreciate what we learned during those sessions, but we request that the information provided at the open houses be incorporated into the written plans. It may also

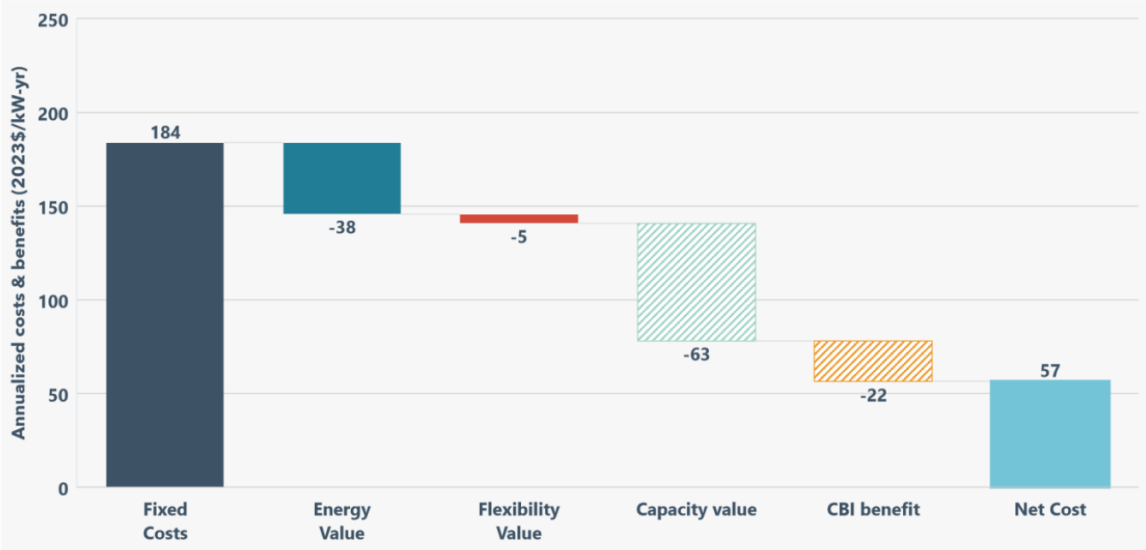
[6] IRP and CEP at 5.
[7] *Id.* at 227.

be useful to have additional technical workshops this year to go over many of the issues involved in transmission planning.

Chapter 10: Resource Economics

This chapter describes how the overall economics of various resource options are assessed, including fixed investment and operating costs, variable operating costs, flexibility value and integration costs, load carrying capacity and capacity value to determine a net cost for all resource options. For the final component, the Resource Community Benefits Indicator (rCBIs), PGE created a CBRE resource within the construct of its resource portfolio that reduces the fixed cost of the proxy resources evaluated by 10 percent as shown below, where it appears that the CBI benefit of 22 = 0.1*(184+28), or 10% of the fixed cost and the energy value). *Is this interpretation correct?*

Figure 77. Net cost of a microgrid CBRE (2026 COD)



Energy Advocates acknowledge that the IRP is not a perfect document, and that final resource procurement will be decided by the results of the RFP. When looking at the identified main resources identified by PGE, there are questions around what the marginal capacity resource will be for PGE in the action window and beyond due to the emissions reductions for HB2021. When looking at the next emerging technologies, the Company should be evaluating resources that do not negatively impact underserved or environmental justice communities.

An Oregon-only policy for electricity generation may significantly increase costs and risks for PGE's customers and make decarbonization more expensive. While Oregon resources will be necessary when looking at the transition to 100% clean energy, and in ensuring that communities have access to renewable energy, PGE customers owning or contracting a diverse set of resources across the West will be necessary when looking at a cost-effective future for PGE's energy system.

We look forward to further discussion of these questions, and how to balance them, in the UM 2273 docket.

Chapter 11: Portfolio Analysis

At first blush, PGE has conducted an analysis that helps to inform a Preferred Portfolio that attempts to balance cost, risk, the pace of decarbonization, and community benefits. While we have identified one question regarding energy efficiency, we would like to point out that we will be examining this chapter more closely and offering more in-depth feedback at later comment opportunities. That said, our question is: *does PGE have more current cost-effectiveness data from ETO for use in this IRP and CEP?*

Chapter 12: Action Plan

Energy Advocates agree with PGE that it is in the best interest of customers that PGE takes steps now to acquire projects as it transitions to meet HB 2021's emission reduction and EJ goals as opposed to procuring many resources closer to the end of the decade. In doing so, we encourage PGE to select resources that will have the most beneficial impact on EJ communities just as the legislation contemplates. Additionally, regarding the steady addition of 200 MW of contract extensions, we would encourage PGE to prioritize contracts from non-emitting resources. For hydro resources, we would encourage the procurement of such resources that have the least impact on fish, with a high preference for resources not located on the Columbia River.

In section 12.2.3, PGE states that the current Reference Case 2030 energy need is 905 MWa, and therefore PGE will target acquiring one-fifth of that need (181 MWa) each year in the Action Plan (2026-2028), for a total of 543 MWa through 2028. This appears reasonable. However, we recognize that nonemitting facilities do not come in exactly at "181 MWa" and not all MW are equal. *We request that PGE prioritize meeting or exceeding that number by generating, or procuring via contract, nonemitting resources that provide the greatest benefit for EJ communities.*

In its Action Plan, PGE proposes to pursue transmission congestion mitigation efforts on the South of Alston flowgate, and invest in Bethel-Round Butte.[8] We do not necessarily disagree that these appear to be reasonable investments. *However, given the lengthy lead times necessary for new transmission, is PGE satisfied that these two transmission projects are sufficient for the foreseeable future?*

In section 12.1.1, PGE provides Table 69 - Cumulative customer resource additions. *Can PGE provide some context for these figures? For example, have consumers ever achieved the energy efficiency MWa described in the reference case?* PGE also describes that cost-effective energy efficiency has been forecasted by the Energy Trust of Oregon. *Can PGE describe the*

[8] IRP and CEP at 303.

role of ETO and PGE in achieving energy efficiency MWa? To what extent can PGE support the ETO in meeting this requirement?

Likewise, PGE describes in this section DR additions which it forecasted in its DSP part 2. *Have these MW figures been achieved by PGE before? What are the steps necessary to achieve these MW? Since these actions are outside of PGE's complete control, i.e., customers have to participate, does PGE have a Plan B if the MW numbers are not met? Will PGE incentivize customers to participate in DR?*

In an effort to ensure that community members and new practitioners in the energy space understand the scale of resources that PGE discusses in this chapter and other related chapters, we ask that PGE provide examples of existing projects that are comparable in size to those that they plan to procure. For example, PGE illustrates in Table 71 (in the reference forecast) its plan to procure 1,334 MW of wind power by 2030. Approximately how many Wheatridge facilities would this be equivalent to? This type of comparison (even if included in a tip box) would be very helpful for advocates and newer practitioners to understand the scale and impact that these resources may have on community resources, whether for better or worse.

Finally, in Section 12.3, PGE outlines its key milestones for the CEP and RFP issuance. In addition, the company discusses a "two-track" approach in which the 2023 RFP would be reviewed in parallel with the Commission's acknowledgment process of PGE's 2023 CEP and IRP. This concerns us because the CEP's changes must be reflected in the type, number, and priority of the RFPs issued by the company, and it would be difficult to do that simultaneously. For that reason, we support the Commission's preference for acknowledgment of the IRP and CEP before the company seeks acknowledgment of the RFP shortlist.[9]

Chapter 13: Resilience

Energy Advocates are happy to see PGEs plans to increase the reliability of their equipment as well as the resilience of their communities. We are particularly interested in the many new studies that PGE has engaged in and would like to learn more about how these can lead to the build out and acquisition of resilience projects.

Climate Change Vulnerability Assessment and OSU Extreme Weather Study

We are pleased to see that PGE has engaged in studying the impacts of climate change and extreme weather on its system, but would like to learn more about what PGE plans to do with this data. It would be good to see PGE's findings and, as a follow-up, an assessment of whether PGE currently has the ability to adapt or mitigate the possible impacts of intensified climate change and severe weather on its system. We also recommend that PGE produce a climate change and extreme weather vulnerability map of communities within its service territory. This map can in turn, be used to identify where resilience and emergency outreach efforts should be

[9] Or. Public Utility Comm'n, Docket No. UM 2274, Order No. 23-146, App'x A at 10 (Apr. 21, 2023), available at https://apps.puc.state.or.us/orders/2023ords/23-146.pdf

prioritized. PGE may consider overlaying its heat vulnerability map with its climate change/extreme weather vulnerability map.

Reliability Metrics
Energy Advocates agree with PGE's approach on this and unequivocally support the use of CELID and CEMI for the collection of granular and accurate customer data.

Value of Service
Energy Advocates support PGE's customer-focused approach to valuing its service and are interested in learning about the results of this study. While using Pacific Gas & Electric's (PG&E) value of service assessment is a good first step, we have some questions regarding PG&E's study methodology and how PGE plans to ensure that it collects data that accurately reflect the entirety of its customers' experience, especially its EJ and low-income customers.

1. *Regarding the dynamic survey instrument design, how does PGE plan to select its customer survey respondents, and how many customers in which part of its territory does it plan to survey?* We would like to understand how customers are chosen and encourage PGE to utilize its vulnerable population maps to pick out communities and individuals to reach out to.
2. On the disparity of outage costs in different territories, PG&E finds that city dwellers have much higher costs. We can see how hidden burdens may cause inaccuracies in this finding. Hidden burdens can, in this case, look like having zero to minimal costs during an outage due to the fact that the customer cannot afford to adapt or expend additional resources during an outage. We encourage PGE to be mindful of these burdens and to integrate a hidden burden study into its analysis.

Additionally, we encourage PGE to also include a qualitative assessment of the value of its service and to maintain flexibility on how it will utilize the data gathered from this assessment. A qualitative assessment may include looking at the cost and risk tradeoffs that customers are willing or forced to make in the event of an outage. PGE should also consider using this information as a benchmark for resilience projects, including those in other planning processes such as its AdopDER model.

Community Resilience Index
We are pleased with PGE's work on this so far and would encourage PGE to consolidate and integrate its findings here with those of the climate change and heat vulnerability assessments. We also encourage PGE to include all of these findings in a multi-layer map so all of this information can be stored and accessed in one centralized location that is made available to the public. In addition to the resources that PGE has already looked at, we would recommend that PGE consider overlaying data from the US Department of Energy's Climate and Economic Justice (CEJST) screening tool.[10]

[10] United States Department of Energy, *US Climate Resilience Toolkit* 2023. The Climate and Economic Justice Screening Tool (CEJST) is a geospatial mapping tool that identifies areas across the nation where communities are faced with significant burdens. These burdens are organized into eight categories:

Zone of Tolerance

We absolutely support PGE's plans to engage in this study and are eager to learn the results. As PGE develops its methodology to understand household and customer-level zones of tolerance, we encourage it to consider the factors included in the Grid Modernization Lab Consortium (GMLC) resilience report.[11] These factors include:

1. a household's need for utility service;
2. preparedness level;
3. the existence of substitutes;
4. possession of social capital;
5. previous experience with disasters; and
6. risk communication.

Chapter: 14 Community Equity Lens & Engagement

Community Engagement

Energy Advocates support PGE's plans to further engage community members in this process. It would be useful to understand which communities plan to engage, as well as venues, timelines, and how it plans to collaborate with community members during its outreach events. We agree with PGE that the co-development of future community solutions and resiliency opportunities (including CBRE projects) is important. Energy advocates encourage PGE to seek out community members and develop a company contact list for this and future engagement.

Tribal Engagement

Energy Advocates would encourage PGE to reach out to Tribal communities that are in its territory or impacted by its activities to understand Tribal concerns and priorities with regard to HB 2021 implementation. We continue to reiterate the importance of this work being done in a genuine manner as opposed to a check-the-box manner or continuing the status quo of how the company engages with tribes. We also recommend that PGE take into consideration the Tribal priorities identified in the Columbia River Inter-Tribal Fish Commission's[12] Energy Vision.[13]

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climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development https://toolkit.climate.gov/tool/climate-and-economic-justice-screening-tool.

[11] Homer et al., The Grid Modernization Lab Consortium: *Resilience Considerations for Clean Energy Plans, For the Oregon Public Utility Commission and Oregon Electricity Stakeholders* September 2022 https://edocs.puc.state.or.us/efdocs/HAH/um2225hah113046.pdf.

[12] Columbia River Inter-Tribal Fish Commission, *Energy Vision* (2022) The Columbia River Inter-Tribal Fish Commission (CRITFC) was created by the Nez Perce, Umatilla, Warm Springs, and Yakama tribes in 1977. CRITFC provides technical support, policy coordination, and enforcement services to the four tribes. More than 40 years ago, CRITFC assisted its member tribes in developing the provisions for the Northwest Power Acts energy planning and fish and wildlife requirements. Since then, it has supported its member tribes' goals for improving the conditions of the Columbia Basin's anadromous fish populations https://critfc.org/wp-content/uploads/2022/09/CRITFC-Energy-Vision-Full-Report.pdf.

[13] A major theme of th[e] Energy Vision is to ensure that renewable resources in combination with increased storage, reductions in peak demand, and increased energy efficiency can provide clean, adequate, reliable, and affordable electricity, support the restoration of healthy, harvestable salmon populations, and prevent future damage to salmon and steelhead and other tribal resources caused by the electrical system *Id.* at 5.

Community Learning Labs
We appreciate the work done in this space so far and highly value the learning labs. It would, however, be very useful to consider how to incorporate actual community members in this space, as opposed to some community-based organizations and other energy practitioners. This is where it would be helpful for PGE to establish its company contacts and relationship with the communities it serves. Once this is done, we would encourage PGE to consider evolving the space so that it can—as it plans—co-develop future resiliency projects with community members.

IRP Roundtable
Without prejudicing future recommendations, the Energy Advocates support the continuation of this space as is. We only recommend that PGE considers and integrates feedback in the IRP that it receives in other spaces such as the Distribution System Planning, Community Learning Lab, and Clean Energy Plan spaces.

Community Survey/ Feedback, Transparency, & Accessibility
Energy Advocates continue to request that PGE be transparent about the feedback it has received from community members and how it has integrated feedback into its plans or, if it did not, to explain why the company rejected the input. Such an approach not only helps to foster transparency, accountability, and trust in this process but also signals to community members where it is feasible and productive for them to expend their resources and time.

III. Conclusion

Thank you for your consideration of these comments. We look forward to continued engagement with PGE, the Commission, and other stakeholders in this process.

Respectfully submitted this 2nd day of May 2023,

/s/

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