

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
LC 70

In the Matter of
PACIFICORP, dba PACIFIC POWER,
2019 Integrated Resource Plan.

FINAL COMMENTS OF
NW ENERGY COALITION

1. Introduction

The NW Energy Coalition (NVEC) respectfully submits the following final comments on the 2019 Integrated Resource Plan (IRP) of PacifiCorp, dba Pacific Power.

NVEC applauds PacifiCorp, Staff and stakeholders for the comprehensive effort to address a wide range of important issues. The Commission's IRP framework is proving to be adaptable and effective at addressing the challenging agenda of transforming the PacifiCorp system and moving rapidly toward a fully decarbonized, more reliable grid that provides increasing value to customers and remains affordable. Indeed, the potential for a much larger role for customers actively participating in achieving these goals through their own energy choices is one of the most exciting aspects of the time ahead.

While the 2019 IRP marks a turning point, it does not fully develop the comprehensive strategy needed to achieve these goals. While this IRP proposes some significant earlier coal plant phaseouts and a major commitment to new renewable generation, there continues to be a substantial gap on the demand side – both energy efficiency and demand response. These elements must urgently be addressed in the 2021 IRP.

Since the filing of the IRP in October 2019, PacifiCorp has made significant adjustments to the preferred portfolio and set in motion a "Track 2" resource acquisition process that once again

bypasses the standard “Track 1” sequence for new resources. Track 2 does not fully align the IRP and resource acquisition processes. Indeed, as of this writing PacifiCorp has just filed its proposed Independent Evaluator RFP for the new resource acquisition cycle, months before scheduled Commission action on 2019 IRP acknowledgement. NWEC cautions against allowing this to become the “new normal.” But we also recognize that the upcoming RFP process has been thoroughly informed by the 2019 IRP as it now stands.

In the future, we believe there may be steps the Commission can take to better align the IRP and resource acquisition cycles, as discussed during the Commission IRP workshop on February 13, 2020. We started by noting that for the foreseeable future, Oregon’s investor owned utilities are going to be in a continuous process of resource acquisition alongside the IRP process because of the magnitude and pace of the change in each utility’s resource mix. While major benefits including reduced greenhouse gas emissions, a much more diverse resource mix, improved reliability, and long term system cost and price stability for customers can be the result, there is no doubt this is a complex undertaking with significant sequencing and alignment issues.

At the February 13 Commission workshop, NWEC provided some thoughts about options for addressing these issues. For example, the Company could be encouraged to field a “request for quotations” for new resources during the early stages of the IRP cycle, to test the depth and range of the market for new resources and provide better information for the IRP.

As we noted in the NWEC Opening Comments, the overall capital expenditure in the 2019 IRP amounts to well above \$15 billion over the next two decades. The Company’s request for approval of an all-source RFP in the summer of 2020 proposes acquiring up to 2400 MW of new solar resources, 2000 MW of new wind resources, 600 MW of battery energy storage and completion of the Gateway South transmission project, all by the end of 2024. We estimate the

combined capital cost could be above \$6 billion. While NWEC supports the general direction, the schedule and financial risks are considerable. And the same will be true of additional major acquisition cycles to follow.

For that reason, we encourage the Commission, PacifiCorp and all stakeholders to consider methods to improve performance and decrease risk for planning and executing the major capital allocations in the decade ahead of us.

2. Coal Assessment

The plant by plant coal assessment of the 2019 IRP is a considerable step forward from previous analysis. It is not only providing a clearer and more consistent assessment of the relative economic value of each generating unit, it also created building blocks for a more robust assessment of alternative scenarios leading to construction of the preferred portfolio. All that said, the progress made is only partial. As we stated in the NWEC Opening Comments, additional analysis and further consideration of accelerating coal fleet retirement should be the highest priority of the next IRP cycle, linked to a more comprehensive approach to staging a clean replacement resource strategy over the next decade.

More specifically, CUB, Sierra Club, Staff and others have raised detailed concerns about specific aspects of the coal assessment that require further discussion and analysis. We urge the Commission to build on the successful advances in this IRP's coal analysis by giving further direction for additional refinement in the 2021 IRP. Key issues include operational flexibility; coal commodity contracts and costs; a more consistent approach to emissions regulation, particularly the complex questions around the need and timing for additional selective catalytic

reduction (SCR) equipment vs. earlier shutdown of certain coal units; and end of cycle issues including management of post-combustion coal residuals.

Likewise, NWEC urges the Commission to address the need for greater clarity on timing and adjustment assistance for those affected by potential coal plant closures. The direct involvement of those workers and communities in the stakeholder process has been a notable and positive new development in this IRP. The transition to a cleaner grid must not come at the expense of those who worked for decades to make sure our lights stayed on. While much of the decision making will be in other regulatory proceedings, the timing and sequencing issues for replacement resources are very much within the IRP context, and we believe the Commission can signal its interest in setting a general direction and supporting concrete actions to address the concerns and provide transition support to affected workers and communities.

The magnitude of the financial and community transition with a more rapid phaseout of coal and progress toward a fully decarbonized and highly reliable system requires looking at many potential policy and financial tools. For example, considerable thinking has gone into the potential for a carefully constructed securitization program to facilitate the financial transition for coal plant closures, including the potential to provide financial resources to affected communities.¹ We applaud PacifiCorp's willingness to consider this strategy. PacifiCorp Reply Comments at 43.

3. Modeling and System Reliability

Among the effects of coal phaseout are renewed interest in reliability issues under a changing resource mix. Late in the IRP process, PacifiCorp introduced a “reliability resource”

¹ For extensive additional material on securitization strategies and other aspects of resource transition, see Western Clean Energy Advocates, Just & Equitable Transition project, <https://westerngrid.net/wcea/jet/>

requirement of an additional 500 MW in the available resource stack. Although the Company provided supporting documentation for this metric, as the Sierra Club noted, unlike other issues that received a full airing in the public workshops, most of the interaction on this issue has been via data requests.

The 500 MW “reliability resource” element is explained by PacifiCorp as a way to bridge modeling constraints and differences between its first stage deterministic capital expansion model (System Optimizer) and the second stage stochastic model (PaR). PacifiCorp Reply Comments at 11. We hope that this adjustment will be fully reviewed in the 2021 IRP, and a more effective and transparent method found to represent and achieve the needed system performance.

Among other things, this includes full recognition of the existing capabilities available in power electronics in new clean resources, for example, wind, solar and storage. These “inverter based resources” can provide essential reliability services such as contingency, spinning, non-spinning and regulation reserves, fast frequency response and voltage support, and do so much faster and with greater fidelity to a control signal than thermal resources. Taking advantage of those capabilities will require a significant effort and time to update system dispatch and operating procedures, but will be an essential feature for managing a more diverse and cleaner resource mix.

NWEC agrees with PacifiCorp about a second important consequence of diversifying the system resource mix, which is that the longstanding reliance on the planning reserve margin (PRM) metric is increasingly outmoded. We strongly support the Company’s efforts to assess “alternative model software and techniques that may allow for a more direct assessment of reliability.” PacifiCorp Reply Comments at 13. This will enable more fine-grained and dynamic

assessment of resource adequacy than the static annual metric of PRM and pave the way to achieving more robust reliability and resilience under varying system conditions.

Finally, two issues emerging late in the IRP process have had a substantial effect on the preferred portfolio. More detailed review of Jim Bridger mining costs and, separately, congressional action to extend the wind production tax credit, resulted in modest changes in the PVRR(d) results but significant difference in the preferred portfolio. PacifiCorp Reply Comments at 13 and 46.

As explained by the Company in its presentation to the Commission on February 13, 2020, the update of its preferred portfolio resulted in 2130 megawatts of additional wind in 2025 spread across Idaho, Utah, southern Oregon and Washington, while providing a PVRR(d) benefit of \$517 million and improving the value of previously selected Wyoming wind.

The sensitivity of the resource mix at the margin can also be viewed as allowing some flexibility in seeking more resource diversity both by type (including generation, demand side and storage) and geography.

4. DSM Type I – Demand Response

NWEC continues to view demand response (DR) as an underdeveloped resource for PacifiCorp. It must be scaled up rapidly and play both a key supportive role to accelerate the uptake of new clean resources while also helping manage system demand peaks. However, the Company continues to downplay the potential, stating: “PacifiCorp’s preferred portfolio already identifies the full amount of economic DR within the supply and costs identified in the CPA.” PacifiCorp Reply Comments at 18. Disappointingly, this amounts to very little new demand

response over the next decade, and almost none in the west side states of Oregon, Washington and California.

Table D.3 – Incremental Demand Response Resource Selections (2019 IRP Preferred Portfolio)

State/Product by Year	2019	2021	2023	2025	2026	2029	2030	2032	2035	2036	2037	2038	Total/Products (MW)
California-3rd Party Contracts												1.1	1.1
California-Cool/WH												1.5	1.5
California-Irrigate											4.8		4.8
California-Thermostat											5.8		5.8
Oregon-3rd Party Contracts												10.9	10.9
Oregon-Ancillary Services						7.5							7.5
Oregon-Irrigate											13.3		13.3
Washington-3rd Party Contracts												10.9	10.9
Washington-Ancillary Services						1.9							1.9
Washington-Cool/WH												7.7	7.7
Washington-Irrigate											8.3		8.3
Washington-Thermostat											16.6		16.6
Utah-3rd Party Contracts												76.7	76.7
Utah-Ancillary Services			8.3	5.3							3.2		16.7
Utah-Cool/WH	4.1	7.0	9.9		7.2	6.7		6.8	7.0			7.2	55.9
Utah-Irrigate												1.9	1.9
Utah-Thermostat						116.7	8.2		8.3			5.1	138.3
Idaho-Irrigate								5.2		3.7		1.8	10.6
Wyoming-3rd Party Contracts												37.3	37.3
Wyoming-Ancillary Services				3.0									3.0
Wyoming-Cool/WH												5.2	5.2
Wyoming-Irrigate											1.8		1.8
Wyoming-Thermostat											5.5	1.2	6.7
Total by Year	4.1	7.0	18.1	8.2	7.2	132.7	8.2	12.0	15.3	3.7	48.7	166.0	431.2

Source: PacifiCorp’s 2019 Integrated Resource Plan—Supplemental Filing, October 25, 2019

However, the Company appears to be taking early steps to put more focus on demand response in the Conservation Potential Assessment for the 2021 IRP, as outlined, for example, in the recent CPA workshop on February 18, 2020. We remain cautious on this front until we see more evidence that the Company is truly invested in improving the analysis and following through with an increased focus on DR.

NWEC is confident that with updated inputs to the demand response portion of the CPA, a much more robust DR resource should be indicated for the 2021 IRP. In addition, the analysis

can take advantage of the updated demand response metrics now being used by the Northwest Power and Conservation Council for its 2021 Northwest Power Plan.²

In addition, the recent passage of new appliance standards by the state of Washington (HB 1444, 2019) requiring a CTA-2045 grid-integration interface in all new heat pump and electric resistance water heaters will offer an early opportunity for a new kind of fully deployable flexible demand resource. We believe that PacifiCorp could implement a similar approach in the rest of its system, starting with a pilot program. In that context, there are scale-up efforts regionally and nationally, spearheaded by the Northwest Energy Efficiency Alliance in collaboration with manufacturers, the Bonneville Power Administration, utilities and states, to open up market transformation for grid-dispatchable water heaters.³

Other elements for a rapid expansion of demand response are also at hand. In addition to PacifiCorp's own smart grid reporting and development work under the guidance of the Commission over the last decade, the Company has accelerated implementation of advanced metering (AMI) across the system, and upgraded its Cool Keeper air conditioner dispatch program in the Salt Lake City area.

In addition, the DR build-out can take advantage of the lessons already being learned in the early stages of the Portland General Electric DR Testbed, also under this Commission's guidance, which integrates grid modernization, flexible demand programs that engage and provide compensation to customers, and innovative and supportive time of use rates.

² Northwest Power and Conservation Council, Draft DR Supply Curves, <https://www.nwcouncil.org/energy/energy-advisory-committees/demand-response-advisory-committee>

³ Northwest Energy Efficiency Alliance, "Written Comments for Commissioner Workshop on Scope of Load Management Rulemaking," submitted to California Energy Commission, January 2020, <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-OIR-01>

While rate design itself is not within the scope of the IRP process, PacifiCorp has long included DR-supportive rate design. We look forward to the Company's forthcoming workshop on DSM Type III, as well as consideration of the new transportation electrification plan.

Finally, NWEC thanks PacifiCorp for giving consideration to our proposal for a demand response RFP in the near future. We recognize there are tradeoffs to having a DR RFP separate from a broader capacity solicitation, but we believe this is an important step to rapidly assess the capability and readiness of third party providers of DR equipment, services and data management. Clear guidance from this Commission that improving DR analysis and acquisition is a high priority will be immensely helpful in ensuring follow-through by the Company going forward.

5. DSM Type II: Energy Efficiency

Underperformance in energy efficiency has been a chronic problem for PacifiCorp over many IRP cycles and it is time for this Commission to send a strong signal to PacifiCorp that it must increase its efforts in this area, especially as the Company seeks to acquire significant amounts of generating and storage resources in the coming years. Every aMW of energy efficiency reduces the costs of new resource acquisition.

NWEC has long expressed concerns about the quite different rates of energy efficiency acquisition across the six states in the PacifiCorp footprint. We agree that there are important variations in customer classes, state regulatory frameworks and so on, but the variations continue to raise questions. In particular, PacifiCorp consistently achieves a much higher energy efficiency to percentage of load ratio in Oregon as opposed to other states. Because energy

efficiency is currently treated as a system resource, this means Oregon customers are effectively subsidizing customers in all other states by obtaining a higher share of this low cost resource.

We have examined the preferred portfolio and load forecast in the 2019 IRP in some detail and having observed some important patterns. We combined year by year and state by state energy efficiency resource selections and annual average load by state to create Figure 1 below (because load by year and state is only available through 2029 in Table A.1, we include only that part of the energy efficiency in Table D.4).

Table D.4 – Incremental Energy Efficiency Resource Selections (2019 IRP Preferred Portfolio)

Energy Efficiency Energy (MWh) Selected by State and Year										
State	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
CA	5,130	5,710	5,270	5,540	6,240	6,180	6,760	6,830	6,710	6,900
OR	182,370	168,410	165,580	177,040	170,830	175,640	163,960	158,100	152,370	144,500
WA	42,090	39,900	40,550	44,450	46,490	46,420	45,300	43,710	42,870	41,510
UT	255,470	254,270	254,120	254,590	260,140	256,810	252,620	244,500	244,770	236,870
ID	18,100	17,190	17,590	18,410	20,920	20,580	20,450	20,740	20,400	20,020
WY	59,320	50,960	54,960	71,250	79,200	83,290	84,430	91,700	91,270	88,540
Total System	562,480	536,440	538,070	571,280	583,820	588,920	573,520	565,580	558,390	538,340

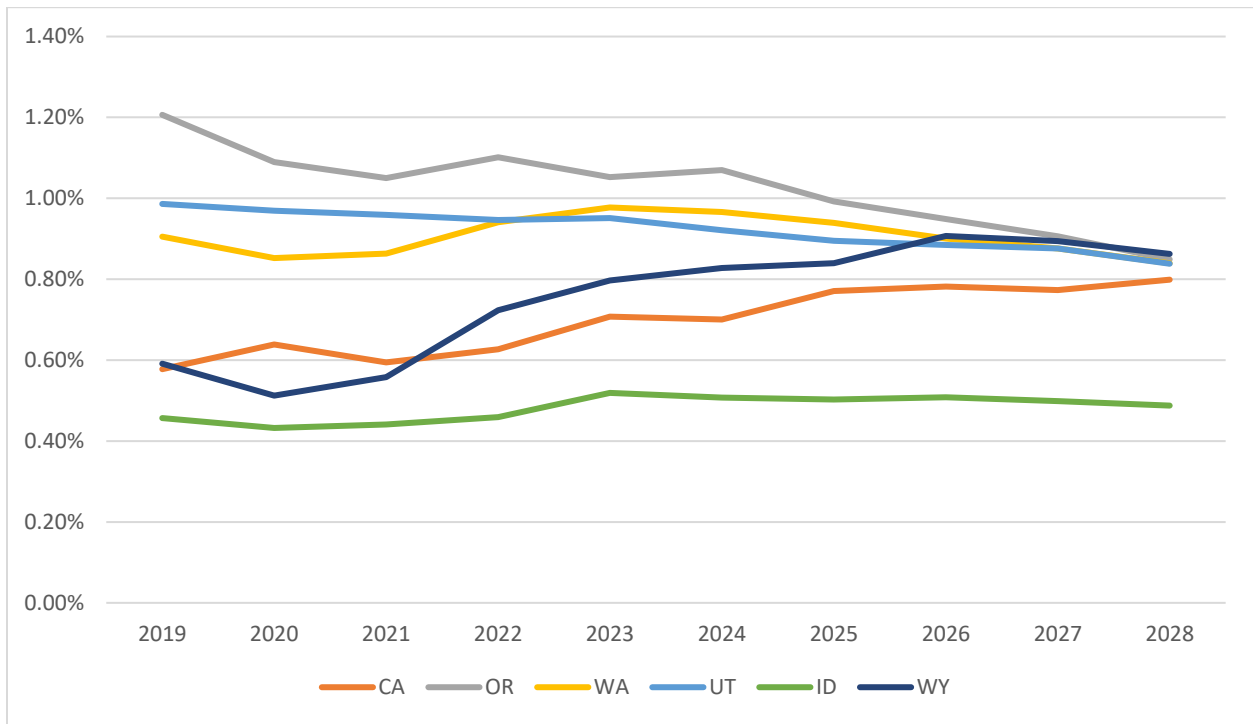
Source: PacifiCorp's 2019 Integrated Resource Plan—Supplemental Filing, October 25, 2019

Table A.1 Forecasted Annual Load, 2019 through 2028 (Megawatt-hours), at Generation, pre-DSM

Year	Total	OR	WA	CA	UT	WY	ID
2019	60,555,090	15,116,420	4,648,980	888,050	25,905,480	10,034,340	3,961,820
2020	61,200,990	15,458,460	4,683,290	894,090	26,240,960	9,947,800	3,976,390
2021	61,668,220	15,762,730	4,696,950	886,220	26,490,100	9,844,530	3,987,690
2022	62,430,120	16,073,620	4,724,840	883,300	26,889,210	9,851,110	4,008,040
2023	63,189,850	16,226,410	4,756,440	881,850	27,359,260	9,935,110	4,030,780
2024	64,099,060	16,422,560	4,802,810	882,180	27,876,700	10,058,210	4,056,600
2025	64,561,310	16,522,910	4,821,500	877,420	28,220,370	10,052,750	4,066,360
2026	64,235,860	16,669,290	4,855,450	873,460	27,647,290	10,110,510	4,079,860
2027	64,827,020	16,821,000	4,892,190	867,600	27,944,390	10,210,990	4,090,850
2028	65,443,430	17,016,870	4,944,450	863,690	28,255,530	10,260,170	4,102,720
Compound Annual Growth Rate							
2019 - 2028	0.87%	1.32%	0.69%	-0.31%	0.97%	0.25%	0.39%

Source: 2019 IRP, Appendix A

Figure 1. Annual Incremental Energy Efficiency by State as a Percentage of Average Load



There are a number of notable features in the chart that bear further scrutiny, including the divergence of energy efficiency acquisition by state over the next several years, and the general downward trend in Oregon and Utah

In addition to the lower than warranted targets being set in the IRP, we are also growing increasingly concerned about PacifiCorp’s commitment to actually achieving savings. The Company’s recent compliance filing in Dockets LC 62 and 67, which contains an update on energy efficiency acquisition for 2019, illustrates that the Company did not achieve its energy efficiency targets in any state except California.

Class 2 Energy Resource Acquisitions

State Wide Energy Savings Results (aMW)			
State	2019		
	Actuals	Target	% of Target Achieved
CA	0.92	0.84	109%
ID	2.27	2.62	87%
OR	18.58	22.57	82%
UT	26.95	27.49	98%
WA	3.74	3.92	95%
WY	5.30	6.40	83%
Total	57.76	63.83	90%

Note: Savings results are estimated actuals at generation and are gross

Source: PacifiCorp Semi-Annual Demand Side Management Update, Feb. 27, 2020

In Oregon and Wyoming, acquisition is as low as 82% and 83% respectively. Unfortunately, the Company only provides a chart outlining these results and fails to provide any explanation for these low numbers, in what we feel is a direct violation of the spirit of Order No. 16-071 for Docket No. LC 62. The bottom line is that if the CPA and IRP methods are short-changing energy efficiency targets, and then PacifiCorp is failing to achieve these low targets, the Company is significantly underachieving energy efficiency overall.

That said, we are cautiously optimistic about PacifiCorp's early consultation with stakeholders regarding the update of the Conservation Potential Assessment for the 2021 IRP, with several workshops already completed earlier this year. The importance of fully acquiring all cost effective and available energy efficiency will only increase as the overall system resource mix undergoes a rapid change. Delays and lost opportunities for energy efficiency will increase the cost and risk of the remaining clean resource development effort.

To achieve an adequate focus on energy efficiency, a more robust and accurate Conservation Potential Assessment is needed, along with improvements around the integration of the CPA data into other phases of IRP modeling. We hope PacifiCorp is not merely conducting this stakeholder outreach and attention to the CPA to appease stakeholders as they go through the process of IRP acknowledgement, but rather that this signals greater recognition within the Company about the importance of improving energy efficiency assessment and acquisition. Only time will tell which outcome we can count on, but the actions of this Commission with regard to the 2019 IRP will be consequential for the ultimate outcome.

In conclusion, as stated in NWEC's Opening Comments, PacifiCorp should be held accountable to acquire the maximum feasible cost effective conservation available in all states throughout its service territory (IRP Guideline 6.b.). Continuing underestimation of cost-effective Class 2 DSM remains an ongoing deficiency in the IRP. While PacifiCorp has taken early affirmative steps to address this issue for the 2021 IRP, we again recommend against acknowledgement of the Class 2 DSM Action Item.

6. Transmission

As discussion on the 2019 IRP has proceeded, dialogue between PacifiCorp and stakeholders has filled in a lot of detail about the linkages between new renewable resources and new transmission in the IRP modeling and associated transmission planning.

In particular, there has been considerable discussion about the need and timing for the proposed Gateway South project, as well as Boardman to Hemingway and segments of the Gateway West project.

As NWEC stated in our opening comments, we will be supportive of new transmission where congestion, reliability and public policy reasons provide a strong case. Our opening comments provide additional commentary about the projects mentioned above.

These proposed projects, as well as other transmission system investments, may be needed to support the more rapid decarbonization – and greater reliability – of the PacifiCorp system. We presume that the Company’s transmission planners fully assess different configurations of new transmission, including the choice of transmission corridors, specific line siting, circuit configuration, substation configuration and location, and many other elements. These are the stock in trade of transmission powerflow and production cost models, with strong guidance from mandatory reliability standards and industry good practice.

But given the high cost of new transmission – in the many billions of dollars – it is crucially important to determine not merely that each proposed project has emerged from the review as providing the best value among a range of transmission expansion choices, but that new transmission provides greater net benefits than non-transmission alternatives.

In these comments, therefore, we focus on a higher level issue – how to assess the need for transmission expansion vs. non-transmission alternatives (“NTAs,” sometimes called “non-wires”). There are varying definitions for non-transmission alternatives; the precise description is not essential to the brief discussion here, but we would highlight the following elements: (1) end-use efficiency; (2) end-use demand response; (3) generation alternatives, including distributed generation; (4) transmission system capability and efficiency improvements within existing corridors; and (5) storage technologies, such as batteries and electric and plug-in hybrid electric vehicles.⁴

⁴ "Updating the Electric Grid: An Introduction to Non-Transmission Alternatives for Policymakers," National Council on Electricity Policy, 2009. The National Council, established in 1994, is a venture between the National Association

To be sure, non-transmission alternatives include elements directly related to the transmission system, such as series capacitors and static Var compensators, which adjust powerflow to decrease congestion, assist with frequency or voltage management, or provide other improvement to grid performance. But NTAs also include any other element of the power system that can help defer, reduce or eliminate the need for new transmission lines.

The rapid forthcoming change to the PacifiCorp resource mix comes with increased variability from new renewable resources – but also increased capability to provide essential reliability services. And there is vast untapped potential for flexible demand, and standalone and hybrid storage. Together, the broad capability of NTA strategies to defer, reduce or improve the performance of the major new transmission builds PacifiCorp is pursuing is rapidly increasing.

While PacifiCorp has demonstrated in some detail that it assesses these various elements in its transmission studies, NWEC proposes that the 2021 IRP cycle should include a comprehensive approach to non-transmission alternatives

We envision an analytical effort that systematically tests new proposed transmission lines against optimized strategies combining many NTA elements to determine if they can, in aggregate, reduce, defer or even eliminate the need for major new transmission lines. Perhaps they cannot, but this exercise will also provide valuable results that may show such non-transmission alternatives can provide more leeway for schedule and economic risk in the buildout of new transmission.

of Regulatory Utility Commissioners (NARUC), the National Association of State Energy Officials (NASEO), the National Conference of State Legislatures (NCSL), National Association of Clean Air Agencies (NACAA) and the National Governors Association Center for Best Practices (NGA), with participation by the Federal Energy Regulatory Commission (FERC), U.S. Department of Energy (DOE), and the U.S. Environment Protection Agency (EPA).

https://www.energy.gov/sites/prod/files/oeprod/DocumentsandMedia/Updating_the_Electric_Grid_Sept09.pdf

7. 2019 Action Plan: NWEC Positions

1. Existing Resource Actions

- 1a. Naughton Unit 3 gas conversion: no position
- 1b. Cholla Unit 4: request retirement by end of 2020: support
- 1c. Jim Bridger Unit 1: retirement by December 2023: support
- 1d. Naughton Units 1-2: retirement by December 2025: support
- 1e. Craig Unit 1: request retirement by December 2025: support

2. New Resource Actions

- 2a. Customer Preference Request for Proposals: no position
- 2b. All Source Request for Proposals: *NWEC considers the proposal to issue an all-source RFP and additional steps to procure resources achieving commercial operation by December 2023 as a starting point. However, we encourage the Company and the Commission to give serious consideration to developing a separate RFP for flexible demand resources to begin the process of building up this important resource category. This can be accomplished alongside our recommendation for an Action Plan item for a renovated study, in-depth stakeholder process and comprehensive plan for DSM Class 1 and 3 resources in the next IRP cycle. NWEC supports filings and additional steps to secure an independent evaluator.*

3. Transmission Action Items

- 3a. Energy Gateway South: no position
- 3b. Utah Valley Reinforcements: no position
- 3c. Northern Utah Reinforcements: no position
- 3d. Utah South Reinforcements: no position
- 3e. Yakima Washington Reinforcements: support
- 3f. Boardman to Hemingway (B2H): no position
- 3g. Energy Gateway West

NWEC supports completion of Segment D.2.

NWEC does not have a position on continued preparation for Segments D.3 and E at this time, but cautions that these segments should receive close scrutiny in the 2021 IRP.

4. Demand Side Management (DSM) Actions

- 4a. Energy Efficiency Targets: oppose.

NWEC believes these targets are too low, so we recommend not acknowledging the energy efficiency targets unless PacifiCorp agrees to raise the targets commensurate with the higher levels of Class 2 DSM selected across model runs in the IRP.

Energy Efficiency Bundling: support.

It is unfortunate that PacifiCorp was not able to successfully complete this work in the 2019 IRP.

Direct-Load Control: oppose.

NWEC opposes this item as stated insofar as the analysis presented in the 2019 IRP is clearly insufficient in characterizing the potential for demand response. Instead, NWEC recommends that PacifiCorp create a separate action item, designated 4b or as otherwise appropriate, to conduct a new study of the resource potential and cost range for DSM Class 1 (demand response) and DSM Class 3 (price response and load shifting), including a full stakeholder workshop, and to submit a completely new DSM Class 1 and 3 strategy in the next IRP cycle.

5. Front Office Transactions

5a. Market Purchases: no position

6. Renewable Energy Credit Actions

6a. Renewable Portfolio Standards: support

6b. Renewable Energy Credit Sales: support

Thank you for your consideration of NW Energy Coalition's Final Comments.

Submitted: March 4, 2020



Wendy Gerlitz
Policy Director
NW Energy Coalition
wendy@nwenergy.org



Fred Heutte
Senior Policy Associate
NW Energy Coalition
fred@nwenergy.org