Initial Comments of the Interwest Energy Alliance PacifiCorp's 2025 Integrated Resource Plan, Docket No: 25-035-22 September 26, 2025 Page 1

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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of PacifiCorp's)
2025 Integrated Resource Plan) Docket No: 25-035-22
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INITIAL COMMENTS OF THE INTERWEST ENERGY ALLIANCE

The Interwest Energy Alliance ("Interwest") hereby submits these initial comments in response to PacifiCorp's 2025 Integrated Resource Plan ("IRP").

INTRODUCTION

Interwest is a nonprofit 501(c)(6) trade association that brings together the nation's leading solar, wind, transmission, geothermal, and storage developers with the nongovernmental environmental community to expand renewable energy around the Intermountain West, including Utah, Wyoming, Colorado, New Mexico, Arizona, and Nevada. Interwest has been actively engaged in public input meetings hosted by PacifiCorp to develop each IRP over the last decade

and has been granted intervention in a number of Commission proceedings for review and

implementation of PacifiCorp's proposed integrated resource plans, both in Utah and Wyoming.

SUMMARY OF RECOMMENDATIONS

Interwest recommends the Commission decline to acknowledge the IRP and the 4-

Year Action Plan. Interwest also recommends that the Commission direct PacifiCorp to issue

an expedited RFP to capture remaining tax credit eligible renewable projects and file a

compliance filing that includes specific elements that should have been included in the 2025

IRP, and which will be required for all future IRPs. Finally, Interwest provides

recommendations for PacifiCorp's compliance with HB 212 related to Advanced

Transmission Technologies.

PacifiCorp's IRP was submitted to the Public Service Commission of Utah ("Commission"

or "PSC") pursuant to Utah Code Ann. §54-17-3 and the 1992 Order on Standards and Guidelines

for Integrated Resource Planning (Docket No. 90-2035-01, "Order on Standards and Guidelines"

or "Guidelines"). Under the Utah PSC Guidelines, the Commission is tasked with deciding

whether to acknowledge the IRP and the analysis used to prepare the Preferred Portfolio and the

Action Plan to carry out its goals over the next four years. Acknowledgement does not create any

presumption of regulatory approval for any of the resources or strategies contained within the IRP.

The decisions related to approval and cost recovery are reserved for separate dockets where

prudency of specific investments would be determined.

¹ https://pscdocs.utah.gov/electric/90docs/90203501/121607RprtOrdrStndrdsGdlnes6-18-1992.pdf

To be acknowledged in Utah, Guideline 4 requires that the IRP must include, in part, the

following:

• A range of forecasts for future load growth

• Evaluation of all present and future resources, including demand side, supply

side and market, on a consistent and comparable basis

• Analysis of the role of competitive bidding

• An action plan outlining specific resource decisions intended to implement the

integrated resource plan in a manner consistent with the Company's strategic

business plan

• A plan of different resource acquisition paths for different economic

circumstances decision mechanism to select among and modify these paths as

the future unfolds

• A cost effectiveness methodology including a description of how social

concerns might affect cost effectiveness estimates of resource options

An evaluation of the financial, competitive, reliability and operational risks

associated with resource options, and how the action plan addresses these risks

• Identification of how risks are allocated between ratepayers and shareholders

• An analysis of tradeoffs

Interwest is generally disappointed with several of PacifiCorp's decisions in the 2025 IRP and

find the support provided for those decisions to be unpersuasive. One adverse result of these

decisions is that PacifiCorp continues to incorporate reduced levels of renewable energy into its

Preferred Portfolio without much regard to the social concerns, risk to ratepayers, or cost impact.

This trend will produce a significantly less diverse portfolio of resources that will not effectively

maintain a reliable and cost-effective portfolio, to the detriment of its customers.

Interwest recommends the Commission find that the 2025 PacifiCorp IRP and the Action Plan

do not adhere to the PSC Guidelines and should not be acknowledged. Interwest recommends the

Commission order PacifiCorp to issue an expedited Request for Proposal ("RFP") for

jurisdictional needs, at minimum, through 2031 and require the following elements to be included

in a compliance filing for the 2025 IRP and for inclusion in future IRPs:

• Require PacifiCorp to report on, and include in modeling, large new industrial and data

center loads that do not have an executed direct access agreement.

Require PacifiCorp to identify specific Action Plan items, such as specific RFPs and RFP

approval processes, that will fulfill Utah jurisdictional needs.

Require PacifiCorp to maintain consistency with previous resource planning documents

and business planning documents by including the Boardman to Hemingway transmission

line in the 2025 IRP unless it provides compelling evidence justifying removing it.

• Require PacifiCorp to report on and include analysis of Advanced Transmission

Technologies as required by HB 212 (Utah Code 54-17-1101) in a manner consistent with

our recommendations.

DISCUSSION

1. An expedited RFP to capture remaining federal tax credits is in the public interest

and the best interest of Utah customers.

The 2025 IRP system-wide preferred portfolio includes 3,181 MW of solar and 2,641 MW of

wind by the early 2030s. The jurisdictional portfolio for Utah, Idaho, Wyoming, and California

(UIWC) portfolio includes 668 MW of solar and 744 MW of wind within the same timeframe. To

meet this deadline under the supply chain constrained environment that was present when

PacifiCorp filed its IRP, PacifiCorp needed to begin an RFP process early within the 2025 IRP

Action Plan. However, given the recent federal tax changes in H.R. 1² and subsequent U.S.

Department of Treasury guidance,³ PacifiCorp should be required to further accelerate

procurement to capture the maximum amount of remaining tax credits for the benefit of its

customers, and these amounts should be the bare minimum of identified need. As further identified

in Docket No. 25-035-52, billions of dollars of savings are available to Utah customers if the

Commission acts quickly and decisively. The need for this urgent RFP is particularly relevant

given the fact that PacifiCorp declined to include large customer loads from the load forecast,

which suggests that the resource needs in Utah are unknown but will likely be materially larger

than PacifiCorp represents in the 2025 IRP. The Commission should direct PacifiCorp to issue an

immediate RFP to begin procuring resources to satisfy all forecasted load in Utah on a timeline

that takes advantage of the remaining federal tax credits.

² Public Law 119-21, 139 Stat. 72, §§ 70512-13 (July 4, 2025).

³ https://www.irs.gov/pub/irs-drop/n-25-42.pdf

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2. The load forecasts in the 2025 IRP are inadequate and do not represent the most likely

customer base due to PacifiCorp excluding anticipated large industrial and data center loads.

PacifiCorp's 2025 IRP load forecast projects steady but modest growth across its system,

driven primarily by economic and demographic trends, with significant uncertainty tied to large

new industrial and data-center loads.⁴ The plan anticipates roughly a 1.3% compound annual

growth rate in retail sales over the next decade, translating to continued growth in both energy

(MWh) and peak demand (MW).⁵ The forecast is developed jurisdiction by jurisdiction,

integrating assumptions about electrification, energy efficiency, distributed generation, and

weather-normalized demand.⁶ However, PacifiCorp explicitly excludes non-firm wholesale sales

and certain large prospective loads, instead presenting alternative scenarios that account for

potential high-growth outcomes. PacifiCorp explained this new exclusion by saving that these

customers are "expected to provide or pay for" their own resources.8

Utah IRP Guideline 4(a)(i) and (ii), requires consideration of "various economic and

demographic factors" affecting consumption and directs PacifiCorp to include all on-system load

obligations. By excluding anticipated large industrial and data center loads on the basis that these

customers are "expected to provide or pay for" their own resources, PacifiCorp is in violation of

this guideline. This exclusion is a fundamental departure from prior IRPs, and other planning

processes, and has the effect of materially lowering the 10- and 20-year demand outlook. For

⁴ PacifiCorp's IRP Vol 2, page 1.

⁵ Id.

6 Id

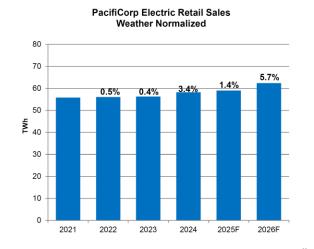
⁷ PacifiCorp's IRP, Vol 1, page 9.

8 Id.

example, PacifiCorp projects only a 1.28% compound annual growth rate in demand over the next decade, despite acknowledged scenarios where data center growth could require more than 5,000 MW of additional resources.⁹ As shown below, in its 2025 Berkshire Hathaway Energy Investor Presentation, PacifiCorp retail sales are expected to grow 5.7% in 2026 primarily due to data center growth and data centers represent "an aggregate opportunity that could double PacifiCorp's system load."¹⁰

PacifiCorp Retail Sales

- PacifiCorp retail sales are increasing in all customer classes
- 2025 forecast sales vs. 2024 up 1.4%
 - Commercial sales higher sales primarily due to new and increased data center activity
 - Industrial sales higher due to continued recovery in the oil and gas sector
 - Residential sales higher due to increases in customer growth, primarily in Utah, and higher energy consumption
- 2026 retail sales are forecast to grow an additional 5.7%, primarily due to increased data center growth



⁹ Vol II, page 18, Figure A.5.

¹⁰ Berkshire Hathaway Energy, 2025 Fixed-Income Investor Conference slide deck, https://www.berkshirehathaway.com/bhenergy/BHE2025InvestPresent.pdf at pages 88 and 89.

Large Load Requests Existing Customer Protections



- · PacifiCorp has received significant incremental requests from large industrial customers and data centers
- While many of these discussions are still at an early phase, they represent an aggregate opportunity that could double PacifiCorp's system load
- PacifiCorp is pursuing creative commercial agreements to ensure existing PacifiCorp customers are not subsidizing data center growth
 - PacifiCorp plans to meet incremental data center load requirements through special contracts that will require regulatory approval
- · Additional strategies include:
 - Implementing additional charges on unutilized demand for existing large load customers to ensure contribution toward system costs when loads do not materialize at their contracted levels
 - · Approved in Oregon and Idaho; pending approval in Wyoming and Utah rate cases
 - · Existing customers will have the option to turn back reserved capacity prior to incurring charges
 - Limiting large load customers' ability to quickly turn back capacity, which would result in stranded costs
 - · Approved in Oregon and Idaho; pending approval in Wyoming and Utah rate cases
 - Reducing the line extension credits given to new large load customers
 - Accelerating the timing of customer funding obligations to limit capital expenditures and offset security risks
 - Enhancing security provisions for future customer funding obligations
 - Increasing customer contribution amounts to offset income tax impacts associated with the contributions

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The IRP is designed to identify the most probable version of the future in which PacifiCorp will need to operate, and the resources needed to reliably and cost effectively serve customers within that scenario. Assuming that a substantial number of those customers will not be served by utility resources without robust substantiation is the equivalent of PacifiCorp picking and choosing which loads to include. The only exception to the load forecast should be for direct access agreements that are signed at the time the load forecast is developed. Absent such agreements, all reasonably foreseeable retail load must be planned for in the IRP. Exclusion of large loads undermines the IRP's value as a comprehensive, least-cost plan for Utah customers, and risks shortfalls in both reliability and compliance with regional adequacy obligations.

Accordingly, the Commission should decline to acknowledge the load forecast and direct PacifiCorp to refile with all projected large loads included, or at minimum to present binding scenarios that quantify system needs with and without those loads.

3. The near-term Action Plan is too vague to acknowledge.

The Guidelines require both a 20-year planning horizon and a four-year action plan that

outlines specific actions for the first two years, anticipated actions for the next two, and status

reporting on prior commitments.¹¹ While the 2025 IRP includes a 20-year horizon, the near-term

action plan is too vague to satisfy the requirements in the Guidelines.

The only system wide "New Resource Actions" identified in the IRP are: "PacifiCorp will

issue as appropriate by jurisdiction need, one or more all-source Request for Proposals (RFP) to

procure resources aligned with the Utah 2025 IRP preferred portfolio that can achieve commercial

operations by the end of December 2029" and "In light of the differentiated resource needs by

jurisdiction identified in the Utah 2025 IRP, scope and targeted resource needs may vary by

jurisdiction."12 These statements do not provide any information about the specific resources or

resource needs that the RFP—if one is issued in Utah—is intended to address to satisfy load in

Utah. This lack of specificity violates Guideline 4(e), which requires actionable commitments tied

to the Company's business plan. 13 This is also inconsistent with previous IRP action plans. In the

2023 IRP, PacifiCorp said "PacifiCorp will issue an all-source Request for Proposals (RFP) to

procure resources aligned with the 2023 IRP preferred portfolio that can achieve commercial

operations by the end of December 2028." The Utility went on to describe in detail when it would

notify the Commission of the need for an independent evaluator, when it would file a draft RFP

¹¹ Guidelines 4(d) and (e).

¹² Vol I, page 333.

¹³ Guidelines at 4(e) ("An action plan outlining the specific resource decisions intended to implement the

integrated resource plan in a manner consistent with the Company's strategic business plan").

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with the Commission, when it expected approval of the draft RFP, and finally when it would

identify a final shortlist, obtain regulatory approval of those projects and execute definitive

agreements with the winning bids. ¹⁴ PacifiCorp provided this same level of detail and commitment

in the 2021 IRP.¹⁵ Without enforceable short-term steps, customers risk losing access to federal

tax credits and entering the Western Resource Adequacy Program¹⁶ ("WRAP") binding period

without adequate accredited capacity, and the Commission has no certainty that PacifiCorp will

have sufficient resources to reliably meet customer load.

A vague Action Plan also chills generation market development. Regulatory timing and

approval risks can have important and outsized impacts on the efficiency of the competitive

electricity supply markets, which this Commission can help address. This Commission should

direct a more regular pattern of issuing requests for proposals following each IRP, aligned with its

interconnection queue study process, so that procurements can proceed in an efficient manner.

A regular pattern of RFP issuance would also help alleviate the disconnect with the FERC-

approved tariff governing the interconnection queue study process. The interconnection queue

study process is rigid in its time limits and deadlines, so coordinating the interaction of these

processes can minimize disruption, risks and cost to developers selling projects to PacifiCorp. If

bidders can be confident about when RFPs will be issued to acquire resources to fill the need

identified in each IRP, then they can plan their engagement in the interconnection queue study

¹⁴ PacifiCorp's 2023 IRP, Volume I, page 349.

¹⁵ PacifiCorp's 2021 IRP, Volume I, pages 276-277.

¹⁶ https://www.westernpowerpool.org/about/programs/western-resource-adequacy-program

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process so that they are fully prepared to estimate transmission upgrade costs with each bid

response. Overall, predictability creates a more efficient and competitive market.

Interwest urges the Commission to require a supplemental filing within 90 days, providing a

revised four-year action plan that:

• Identifies specific RFPs for necessary resources and transmission.

• Aligns procurement timelines with expiring federal incentives and market

expectations.

4. The 2025 IRP deviates from other planning processes and does not justify the

deviation.

Guideline 9 requires PacifiCorp's IRP to be directly related to its strategic business plan. Yet

the 2025 IRP departs from the Company's own long-term capital planning in key respects,

including load forecasts as discussed above. Additionally, the IRP excludes the Boardman-to-

Hemingway (B2H) transmission line as a system resource. PacifiCorp said "at this time, the

Boardman-to-Hemingway transmission line (B2H) is not included in the preferred portfolio.

PacifiCorp is reevaluating the timing and needs analysis underlying B2H because of factors such

as changed native load growth and a lack of capacity available on neighboring transmission

systems to deliver to load pockets." Eliminating B2H contradicts prior commitments and

undermines Utah customers' ability to access low-cost renewable generation in the Pacific

Northwest. ¹⁸ The decision to exclude B2H is based, at least in part, on PacifiCorp's unreasonable

¹⁷ Volume I. 324.

¹⁸ See PacifiCorp's 2023 IRP, page 101 ("Given the extensive list of benefits noted above, PacifiCorp is committed to participating in the Boardman-to-Hemingway project in accordance with the terms of the Joint Funding Permitting

decision to exclude large customer loads from the IRP which has the effect of suppressing native load growth, one of the factors cited as the basis for this decision. The removal of B2H represents a substantial deviation from previous IRPs and the utility's strategic business plan.¹⁹

Western Electric Transmission Investment Commitment to Support Renewables



- Berkshire Hathaway Energy plans to invest more than \$27 billion (of which \$8.7 billion had been invested as of December 31, 2024) developing a more interconnected electric transmission grid in the Western U.S. and Canada, thereby providing a conduit for increased renewable energy to be delivered
- PacifiCorp plans to invest approximately \$13.0 billion on major transmission projects – primarily located in Wyoming, Utah, Idaho and Oregon – including Populus-Hemingway, Anticline-Populus and Boardman-Hemingway, of which \$5.3 billion had been invested as of December 31, 2024
- NV Energy's Greenlink Nevada projects include a 350-mile, 525-kV transmission line (Greenlink West) and a 235-mile, 525-kV transmission line (Greenlink North), with a combined expected cost of approximately \$4.2 billion, of which \$0.5 billion had been invested as of December 31, 2024
- PacifiCorp, NV Energy and BHE Transmission plan to invest \$10.3 billion in other electric transmission projects, of which \$2.9 billion had been invested as of December 31, 2024

Agreement through pre-construction activities and negation of the three party terms, and will continue to work with Idaho Power in the development and negotiations of the definitive agreement for the construction and ownership of the new line"); Berkshire Hathaway Energy, 2025 Fixed-Income Investor Conference slide deck, pages 42 and 93, found at: https://www.berkshirehathaway.com/bhenergy/BHE2025InvestPresent.pdf ("PacifiCorp plans to invest approximately \$13.0 billion on major transmission projects – primarily located in Wyoming, Utah, Idaho and Oregon – including Populus-Hemingway, Anticline-Populus and Boardman-Hemingway, of which \$5.3 billion had been invested as of December 31, 2024").

19 Id.

PacifiCorp Major Transmission Projects

The following major transmission projects represent approximately 2,300 miles of new high-voltage transmission lines, representing an estimated \$13.0 billion investment. Of that investment, PacifiCorp has placed in-service 1,064 line-miles with an approximate cost of \$4.8 billion. New transmission lines are evaluated for wildfire risk and appropriate design considerations are applied

- Limber Termina
 - 40 miles of 500-kV; investment of \$0.8 billion; planned inservice 2030
- Boardman Hemingway
 - Joint project with Idaho Power
 - 290 miles of 500-kV; investment of \$1.1 billion (PacifiCorp's share); planned in-service 2027
- Central Utah Reinforcements
 - 60 miles; investment of \$0.4 billion; planned in-service 2028
- Anticline Populus
 - 200 miles of 500-kV; investment of \$1.7 billion; planned in service 2034
- Anticline Shirley Basin
 - 143 miles of 500-kV; investment of \$1.1 billion; planned in-service 2035
- Populus Hemingway
 - 502 miles of 500-kV; investment of \$3.1 billion; planned in-service 2036



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This inconsistency between corporate planning and the IRP violates the Guidelines' requirement of alignment and erodes confidence that the IRP reflects actual utility intentions. The Commission should not acknowledge the IRP until PacifiCorp demonstrates consistency with its business plan or provides compelling evidence justifying any deviation.

5. Recently passed HB 212 requires PacifiCorp to include and analyze Advanced Transmission Technologies, and the Commission should issue guidance on how PacifiCorp should comply with this requirement in future IRPs.

The recently passed HB 212, enacted as Section 54-17-11 of the Utah Code, requires the utility to analyze the cost effectiveness and timelines for deploying Advanced Transmission Technologies (ATTs) as an alternative strategy when proposing transmission additions in an integrated resource plan filing (ATT Requirements).²⁰ The utility is required to report, in part, on

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²⁰ Utah Code Ann. § 54-17-1101(2).

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whether the ATTs would increase: 1) transmission capacity, including connection of new energy

resources, 2) efficiency, 3) reliability, and 4) resiliency; or *reduce*: 1) transmission congestion, 2)

the curtailment of energy from generation resources, and 3) the risk of igniting wildfire.²¹

Interwest believes that ATTs can provide a critical role in identifying the most cost-effective

portfolio of generation and transmission resources for customers. The Guidelines require

evaluation of all present and future resources on a consistent and comparable basis, including

assessments of technical feasibility, lead-time requirements, flexibility, efficiency, and

dispatchability.²² Transmission capability directly affects each of these factors, as no generation

resource can be considered reliable or cost-effective without a means to deliver it. The Guidelines

also call for analysis of tradeoffs between reliability, dispatchability, and least-cost resource

acquisition—issues squarely implicated by transmission constraints and solutions.²³ In this

context, incorporating ATTs into the IRP process ensures that PacifiCorp is evaluating a complete

range of feasible generation and transmission resource options, consistent with the requirement to

minimize total costs while safeguarding reliability and long-term public interest.

Given the complexity of ATTs, Interwest believes that establishing a common understanding

of the technologies will help the Commission provide guidance to the utility on how to comply

with the new requirements in HB 212. To that end, Interwest provides a short overview of these

technologies and their value, as well as some recommended information and analysis to include in

future IRPs to comply with the requirements in Section 54-17-11.

²¹ *Id.* at (2)(a)(ii).

²² Guideline 4(b).

²³ Guideline 4(j).

HB 212 defines ATTs as technology that increases the capacity, efficiency, or reliability of

electric transmission infrastructure.²⁴ It specifically includes the following ATTs: 1) dynamic line

ratings technology, 2) advanced power flow controls, 3) topology optimization software, 4)

advanced transmission line conductors that increase the power transfer capacity of transmission

lines, and 5) energy storage technologies.²⁵ The first three ATTs optimize the use of the existing

transmission system capacity, while the fourth, installation of advanced conductors, increases

transmission line capacity. Lastly, energy storage can modify generation resource injections to

match the available transmission capacity.

a. Dynamic Line Rating Technologies

Dynamic line ratings technology adjusts the real-time rated capacity of transmission lines

based on real-time conditions. The technologies with the most proven operational experience are:

1) weather-based models with weather stations that continuously compute temperature, wind, and

solar radiation for the region where the transmission lines traverse, and 2) direct conductor

monitoring of sag, tension, or temperature sensors. The weather-based modeling, direct conductor

monitoring, and their combination can provide average capacity gains of 10-20%, 15-25%, and

20-30%, respectively. They could even provide short-term capacity increases of up to 40 to 50%.

If the weather-based modeling is regionally based (i.e., informed by wide-scale weather data), it

could cover multiple lines at a lower cost than the direct monitoring method, which would be

applied to each specific line. The weather-based modeling is a lower cost method than direct

²⁴ Utah Code Ann. § 54-17-1101 at (1)(a).

²⁵ *Id.* at (1)(b).

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monitoring and may work well for a transmission path where multiple lines are within a geographic region. The direct monitoring method, a higher cost technology, may provide a cost-effective approach for a single constrained line. A combination of these two technologies can provide an increased capacity benefit compared to each method on its own.

While dynamic line ratings technology will increase transmission line capacity, that capacity increase may not occur during peak congestion periods because wind speed is the dominant factor for cooling a transmission conductor and allowing increased capacity. For instance, Utah's electricity demand peaks during the summer months when wind speeds are generally lower, as shown in Figure 1 below. Conversely, Wyoming winds peak in the winter along with the highest electrical demand, as shown in Figure 2 below.

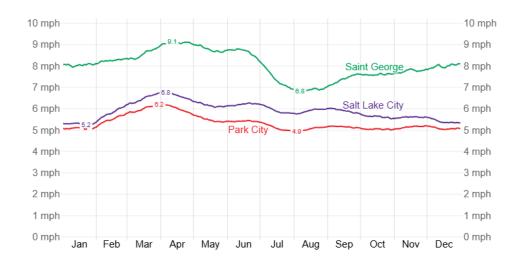


Figure 1 Utah Annual Wind Speed Profile

Source: https://weatherspark.com/countries/US/UT

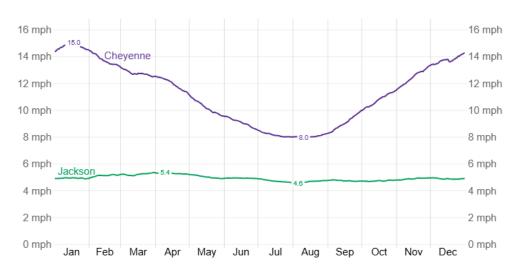


Figure 2 Wyoming Annual Wind Speed Profile

Source: https://weatherspark.com/countries/US/WY

b. Advanced Power Flow Controls

Advanced power flow controls actively control the flow of electricity across a transmission line. These devices may be applied on a line or lines where some are at capacity while capacity remains available on other parallel lines and diverting flow increases the overall transfer capacity. There are three technologies within this ATT class that actively adjust the line flow by changing impedance in series with the line, and changing the impedance can raise or retard the line current flow. A Smart Wires SmartValve applies a voltage in quadrature to simulate capacitance or reactance, a thyristor-controlled series capacitor uses thyristors to control the amount of capacitance, and a static synchronous series compensator simulates a reactance with a series voltage applied in quadrature to the line voltage. A fourth type of advanced power flow control is a unified power flow controller, which contains voltage source converters that inject a voltage in series with the line and can perform like the three technologies above along with injecting voltage in-phase with the line current injecting real power. The unified power flow controller also injects

a shunt voltage providing reactive support for the transmission system. Advanced power flow

controls can direct flow to best utilize the entirety of the transmission system.

c. Optimal Transmission Grid Configurations

Topology optimization is performed through software that works in conjunction with SCADA

systems to open lines (breakers) and thereby change the transmission system configuration. This

reconfiguration can reduce congested lines by increasing the impedance to the point of congestion

resulting in flow steered away from the congested points. The cost to implement topology

optimization is relatively low and it can identify system configurations to reduce congestion during

normal system conditions and during planning equipment outages. To maintain reliable operating

configurations, a utility must ensure that the solution algorithm includes sufficient outage scenario

probabilities. Topology optimization can best utilize the multiple paths available on the

transmission system.

d. Advanced Transmission Line Conductors

Advanced transmission line conductors are a collection of conductors that allow higher

operating temperatures with less sag than traditional aluminum conductor steel reinforced (ACSR)

resulting in increased capacity. Most of these conductors replace the steel reinforcement with a

supporting core made of steel, carbon fiber, ceramic fiber, or nickel-iron alloy that reduced

elongation under high temperature conditions. These advanced materials can increase the line's

maximum operating temperature, resulting in increased capacity of 120-200 percent.

e. Energy Storage Technologies

Energy storage technologies can be installed at resource and load locations to reduce

transmission congestion by storing generation at the resource and discharging stored energy when

the lines are congested. Although energy storage does not increase transmission capacity, it allows

the existing transmission to operate up to its capacity and serve load above this capacity while

reducing resource curtailment.

Developers have been installing energy storage with solar resources to capture energy that

would be otherwise curtailed and extend a solar plant's capability into the evening hours.

Additionally, utilities have been installing energy storage at substations to defer transmission line

and substation replacement.

It is our understanding that PacifiCorp Transmission, like many utilities, presently evaluates

the applicability of ATTs when identifying a transmission capacity need. To comply with the new

ATT Requirements, PacifiCorp must provide their analysis of the cost effectiveness and timetable

to deploy ATT through the IRP process in a transparent manner and clearly lay out where and how

ATTs can lead to increases in 1) transmission capacity, including connection of new energy

resources, 2) efficiency, 3) reliability, and 4) resiliency; or reductions in 1) transmission

congestion, 2) the curtailment of energy from generation resources, and 3) the risk of igniting

wildfire. SB 212 requires analysis and presentation of the cost differences between a traditional

transmission upgrade and ATTs to compare the benefits and costs of such technologies.

The following table provides a summary of the relevant attributes for each ATT and their link

to the new requirements.

Advanced Transmission		Utah Requirement	h Requirement Magnitude of Capacity Increase During Peak			ak	Additional Benefits	
Technology	Where Applied	Application in IRP	Winter	Spring	Summer	Fall	within Utah Code	Requirements to Achieve
Dynamic Line Rating	Anywhere where transmission is constraining flow	54-17-1101(2)(a)(ii) (A), (C), (D) and (H)	MEDIUM cool temps	LARGE high average wind speed (WY, UT)	SMALL high temps and low wind speed (WY, UT)	MEDIUM	54-17-1101(2)(a)(ii) (F)	Sensors and software installation, experience, and probabilistic modeling
Advanced Power Flow Control	Locations where the flow across lower capacity lines can be redirected to other lines.	54-17-1101(2)(a)(ii) (A), (C), (D) and (H)	MEDIUM	MEDIUM	MEDIUM	MEDIUM	54-17-1101(2)(a)(ii) (E) and (G)	Identification, installation, and settings
Topology Optimization	System wide with benefits occuring in paths with multiple lines that can be optimized	54-17-1101(2)(a)(ii) (A), (C), (D) and (H)	MEDIUM	MEDIUM	MEDIUM	MEDIUM	54-17-1101(2)(a)(ii) (E) and (G)	Software, establish risk management, and operations training
Advanced Conductors	Lines with parallel transmission	54-17-1101(2)(a)(ii) (A), (C), (D) and (H)	LARGE	LARGE	LARGE	LARGE	54-17-1101(2)(a)(ii) (F)	Reliability analysis and installation
Energy Storage	Load pocket or variable generation location where transmission is causing curtailment	54-17-1101(2)(a)(ii) (C) and (D)	Do	es not increase	transmission capacity	,	54-17-1101(2)(a)(ii) (B)	Identification through probabilistic modeling and installation

Utah 54-17-1101(2)(a)(ii) Code Requirement

- (A) increase transmission capacity
- (B) increase transmission efficiency
- (C) reduce transmission system congestion
- (D) reduce curtailment of energy generation resources
- (E) increase reliability
- (F) reduce the risk of igniting wildfire
- (G) increase resiliency
- (H) increase capacity to connect new energy resources

f. ATT Recommendations

Interwest offers the following recommendations for the Commission to include guidance to

PacifiCorp implementing the requirements discussed above:

• Require a transparent description of PacifiCorp's process for identifying all

transmission expansion options considered in its modeling. This should be provided in

both the IRP document itself and in stakeholder meetings and materials. This would

significantly aid in ensuring transparency of ATT consideration.

• Require PacifiCorp to identify in the IRP all the transmission expansion options

included in its capacity expansion modeling. Within these options, identify the ones

that employ ATTs as well as explain for the remaining options whether potential ATT

solutions were considered but ruled out.

• Require PacifiCorp to identify all instances (locations and conditions) where its

production cost modeling identifies transmission congestion or generation curtailment.

This level of transparency is a key component of being able to review whether and how

PacifiCorp evaluates the potential for ATTs to reduce congestion and/or curtailment.

• Require PacifiCorp to develop and report on methods for the holistic consideration of

ATTs. The synergies and complementary nature among and between different ATTs,

and different deployment of ATTs, may require the development of new techniques for

future assessment and incorporation into the IRP.

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SUMMARY OF RECOMMENDATIONS

Interwest recommends the Commission find that the 2025 PacifiCorp IRP and the Action Plan

do not adhere to the PSC Guidelines and should not be acknowledged. Interwest recommends the

Commission order PacifiCorp to issue an expedited RFP for jurisdictional needs, at minimum,

through 2031 and require the following in a compliance filing and for inclusion in future IRPs:

• Require PacifiCorp to report on, and include in modeling, large new industrial and data

center loads that do not have an executed direct access agreement.

• Require PacifiCorp to identify specific Action Plan items, such as specific RFPs and RFP

approval processes, that will fulfill Utah jurisdictional needs.

• Require PacifiCorp to maintain consistency with previous resource planning documents

and business planning documents by including the Boardman to Hemingway transmission

line in the 2025 IRP unless it provides compelling evidence justifying removing it.

• Require PacifiCorp to report on and include analysis of Advanced Transmission

Technologies as required by HB 212 (Utah Code 54-17-1101) in a manner consistent with

our recommendations.

Interwest appreciates the opportunity to submit these comments.

Respectfully submitted,

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