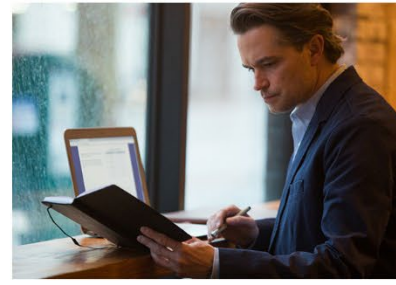


CAISO GHG Workgroup

Complexities of Multi-Jurisdictional Utility

Nov 27, 2023



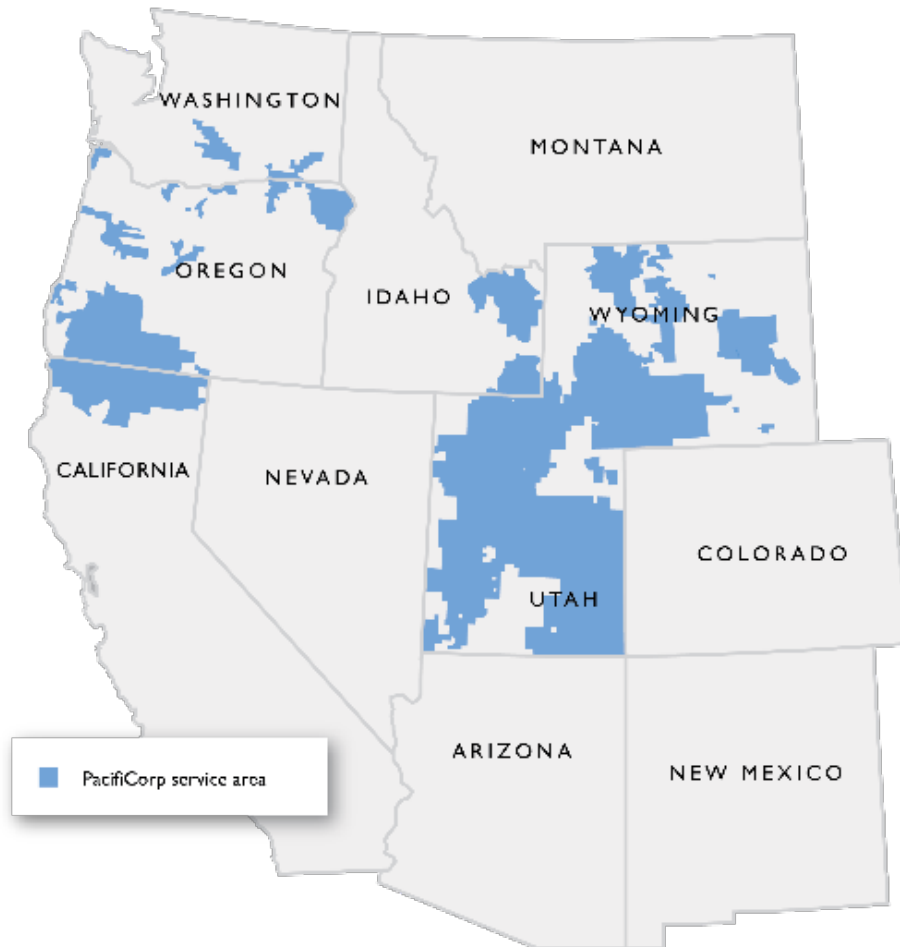
Objective

- Provide overview of PacifiCorp's multi-state utility landscape and emissions accounting paradigm to create context and frame problem statements
- Propose Recommendations

Applicability

A case study for a multi-state BAA under multiple clean energy and GHG regulations in the context of EDAM participation --- can help exemplify the types of issues others may face or be impacted by

About PacifiCorp



- Approximately 1.9 million customers across 6 states
- Balancing Area Authority (BAA) with two control areas: PACE and PACW
- Transmission Provider
- Wholesale Power Marketer
- Joined Energy Imbalance Market (EIM) in 2014
- Committed to join EDAM
- Subject to 20+ emissions and renewable disclosure compliance frameworks
 - **GHG Priced-Based Policies** - California Cap and Trade and Washington Climate Commitment Act (CCA)
 - **Non-GHG Priced-Based Policies** – Oregon House Bill 2021 and Washington’s Clear Energy Transformation Act

About PacifiCorp



Our **geographic diversity** means that we can provide access to **low-cost renewable energy** where it is most productive throughout the Western United States – decarbonizing the grid and prioritizing affordability



Wind facilities located in the highest-producing areas such as Eastern Wyoming, Eastern Oregon, Eastern Washington, and Montana



Solar and energy storage facilities in the highest producing areas such as Utah and Oregon

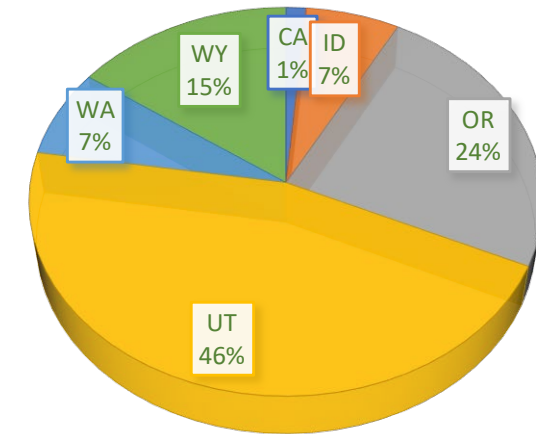


With over 16,900 line-miles of **high-voltage transmission** spanning 10 states and a range of climate zones

How Our Electricity Customers Share the System

- PacifiCorp operates and dispatches as **one system**, not dispatched to specific to state load
- Electric customers in six states “share” system resources based on **what they pay for**¹
 - Generally, each state is allocated resources proportional to their load **regardless of the resource’s geographic location**²
 - Washington has unique provisions in its cost allocation³

PACIFICORP 2022 ALLOCATION FACTORS



- Environmental attributes, e.g. RECs, are allocated consistent with costs
- “No Coal” requirement in Oregon are enabled by “no coal *in rates*” provision (SB 1547)
- Long-range clean energy portfolio plans (required by CA SB 100, WA CETA and OR HB 2021) are developed based on these allocations

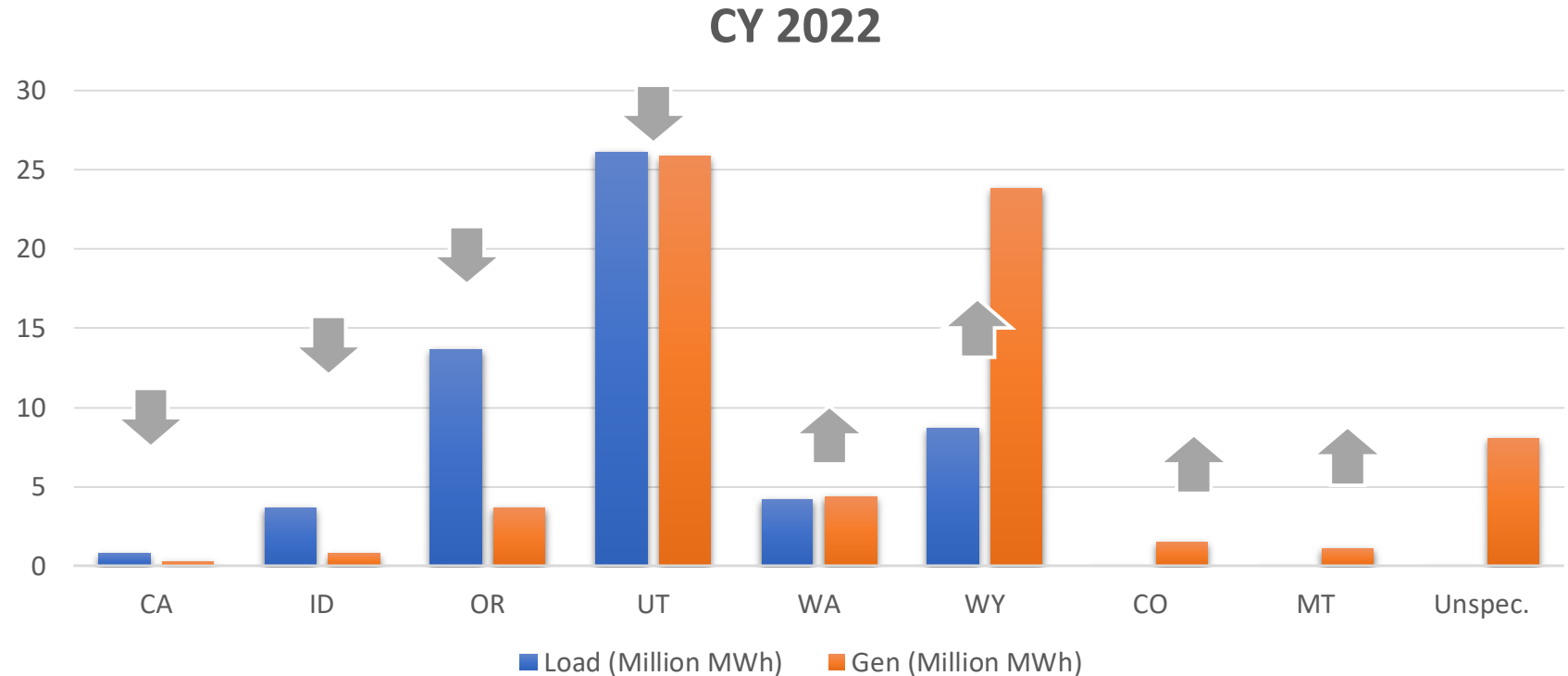
Geographic Retail Load vs Generation

Take Away

Geographically, retail loads and generation are out of proportion.

If Washington state border is metered to show real-time energy transfers, it would show net exporters on average.

From a resource allocation and GHG reporting prospective WA is an importer.



State	CA	OR	WA	UT	WY	ID	CO	MT	Unspec.
% Retail Load	1.4	24.0	7.3	45.7	15.2	6.5			
% Generation in State	0.4	5.3	6.3	37.2	34.3	1.2	2.2	1.6	11.6

Cost-based vs Real-time Energy Transfer-Based Accounting

Alignment between **costs** and **resource compliance claims** is important to maintain because it:

- Ensures benefits of ratepayer investments are realized and claimed appropriately
- Leverages geographic diversity to decarbonize
- Complies with one state's laws and regulations without violating other state's laws



Problem Statement

If state policies **change** to base compliance on data from the market operator [data intended to inform settlements] -- and use that data to represent energy serving PacifiCorp **retail load** -- adverse effects would result:

- (a) a disconnect would appear between costs and benefits/claims of the resources paid for by retail customers in retail rates;
- (b) it would not be equivalent with long range clean energy plans developed by utilities to comply with state policies, and
- (c) it would ultimately disincentivize market participation.

We are asked...

How will joining EDAM impact PacifiCorp's compliance with various emissions reduction standards and clean energy policies?



GHG Accounting for a Multi-Jurisdictional Utility

- Regulations, including those that govern the GHG pricing policies, have unique provisions for multi-jurisdictional utilities
 - **Base emissions and clean energy compliance on resources paid for by retail customers** in each state as reflected in the interjurisdictional cost-sharing agreements approved by utility commissions
 - In Washington, where PacifiCorp's BAA overlaps state border, for the purpose of bilateral wholesale transactions sourced from PACs BAA and with final point of delivery in the state, PacifiCorp is the "electricity importer". **Meaning PACs BAA is considered outside the state.**¹

GHG Workgroup Guiding Principle

To enable congruency, market design should support or align with state greenhouse gas regulation policies, to the extent practicable



Problem Statement

If the methodology for PacifiCorp's emissions accounting from centralized market activity with the Washington CCA is not consistent with existing methodology for imported electricity from bilateral transactions and imported electricity to serve retail load, then the Washington GHG regulation area's reporting will be incomplete or inaccurate.

¹ Approach proposed by "Consideration of Electricity Imports and Determination of the Electricity Importer Under the Climate Commitment Act" (March 1, 2023)

Establishing “Imported” Electricity

California

- PacifiCorp has a retail service territory in California with its BAA and resources outside California
- Under CARB Mandatory Reporting Rule (MRR), PacifiCorp is an “**importer**” when serving retail load.
- Retail imports are assumed to come from system mix - other than a few small QFs in the state
- **EIM imports** to California from PacifiCorp are deducted from system mix and accounted for as separate specified wholesale sales

Washington

- PacifiCorp has a retail service territory in Washington and generating resources in state that exceed retail load on annual basis, and BAA overlaps WA state border
- Under Ecology WAC 173-446, retail load is assumed to be served by combination of cost-allocated share of in-state generation and imports from PacifiCorp system mix out of state
- For bilateral wholesale transactions sourced from PAC BAA and with final point of delivery in Washington, PacifiCorp is always the “**electricity importer**”. Meaning **BAA is considered outside the state**.¹

- WEIM imports to California from Washington resources can carry a GHG cost and obligation in both states. Both CARB and Ecology are considering rules to prevent double counting.



Recommendation Specific to WA GHG Regulation

Regulation

- Energy transfers across Washington's geographic state boundary that occur within PACs own BAA should not be considered an "import" into the GHG Regulation Area (consistent with treatment for bilateral wholesale transactions).
- PacifiCorp's transfers to BAAs fully inside Washington from PacifiCorp system should be considered an import into the state, other than form resources located in the state.

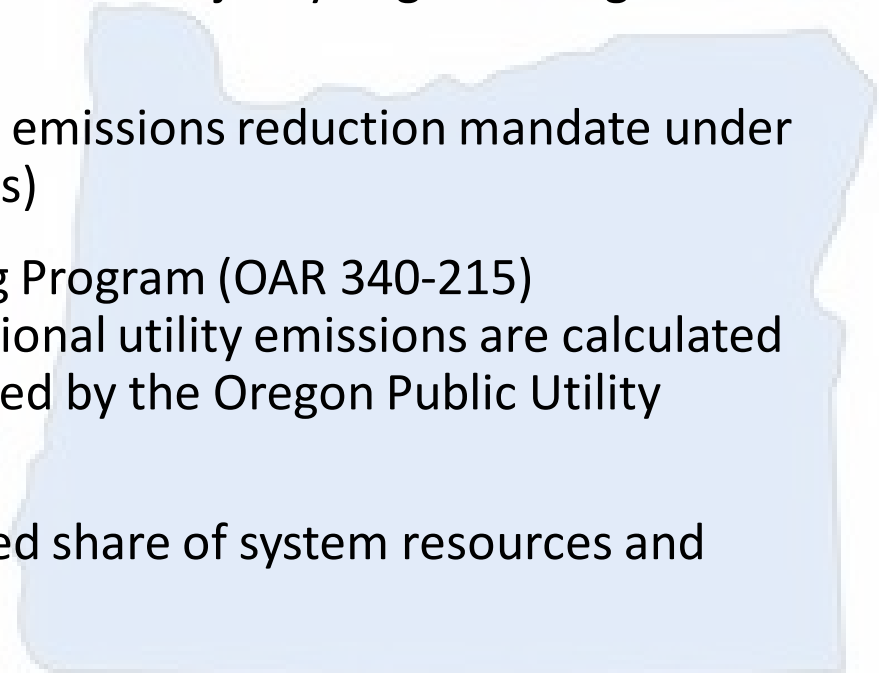
Market Design

- Implement GHG attribution consistent with this treatment
- Reporting of WEIM and EDAM activity enable accounting with this treatment

Non-GHG Priced-Based Policies Oregon HB 2021

Oregon

- Pacific Power has a retail service territory in Oregon with majority of generating resources located outside the state
- Subject to “no coal in rates” provision SB 1547 and emissions reduction mandate under Oregon House Bill 2021 (non-GHG pricing programs)
- Compliance is based on Greenhouse Gas Reporting Program (OAR 340-215) administered by Oregon DEQ where multi-jurisdictional utility emissions are calculated according to a cost allocation methodology approved by the Oregon Public Utility Commission (OPUC)
- Retail load is assumed to be served by cost allocated share of system resources and unspecified market purchases
- EIM “after the fact deeming” to California is treated as a specified wholesale sales and deducted from system mix





Recommendation

When market operator supplies reports to regulators on day ahead or real-time energy transfer activity [data intended to inform settlements] –transactions involving MJRPs and BAAs that overlap GHG Regulation areas (PacifiCorp is both) will require additional consideration and characterization to ensure it is consistent with other data reported to state.

Recommendation Details

EDAM Settlements from PAC Resources to a GHG Regulation Area

- Transactions across geographic state boundary that occurs within PACs own BAAs is not considered an import into the GHG Regulation Area (currently the case in CA, and proposed for WA)
- PacifiCorp is an importer into WA GHG Regulation area only when WEIM or EDAM transfers occur from PAC's system resources outside WA to a BAAs that are fully within (similar to wholesale market in WA)
- Deemed specified imports into GHG Regulation areas (CA and WA) are considered specified sale and compliance reporting reduces claims for associated environmental attributes (currently the case in CA and OR, and proposal for WA)

EDAM Settlements from PAC Resources between WA and CA GHG Regulation Areas

- WA resources deemed to CA should be considered specified transfers and should be only claimed once for both GHG and clean energy claims. (CARB and Ecology are currently considering regulation to address dual claims)

EDAM Settlement to PAC BAAs Reported to States

- EDAM or WEIM transfers to PAC BAA such as during periods of resource insufficiency would be considered a "net import" (like an unspecified market purchases) and allocated to the GHG Regulation Area retail load based on state cost allocation factor.

Closing Thoughts...

- It is possible to maintain cost-allocated framework and account for EDAM transactions incrementally for environmental compliance reporting
- Requires collaboration with our regulators and CAISO
- Welcome dialog with regional stakeholders to brainstorm ideas around these complexities

