



Environmental Attributes, Provider of Choice REC Management, Allowance Management

June 12, 2024

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Agenda

| Topic | Presenter |
|--|-----------------|
| Environmental Attributes and Current State Legislation | Alisa Kaseweter |
| REC Management During Provider of Choice | Kathryn Patton |
| Allowance Management for Cap-and-Trade Programs | Alisa Kaseweter |

Objectives

- Promote understanding of Environmental Attributes and Current State Legislation
- Discussion and input on REC Management
- Discussion and input on allowance management for cap-and-trade programs





Environmental Attributes and State Legislation

Alisa Kaseweter

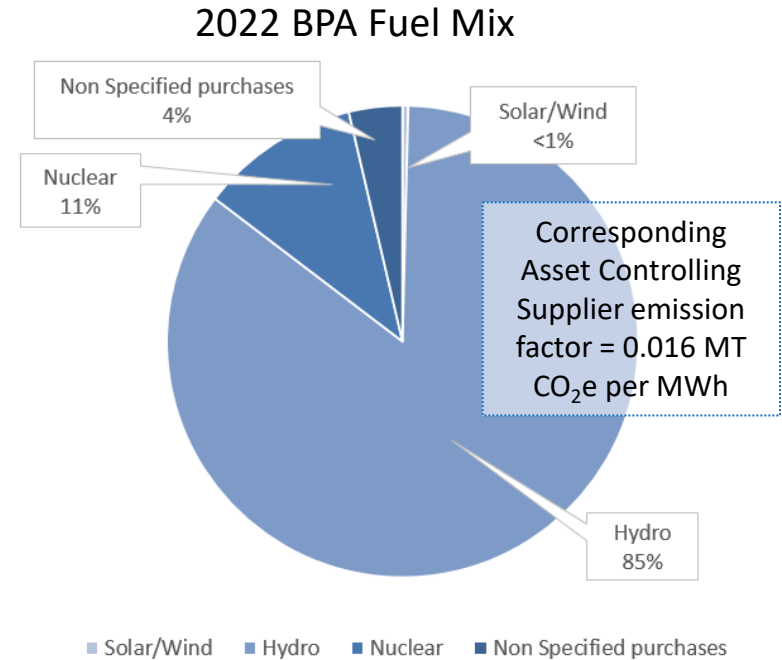


Environmental Attributes: GHG Emissions

The power BPA markets is 95% carbon-free on average

- No coal or natural gas in BPA's resources
- States attribute emissions to unspecified market purchases (states presume it may be sourced from fossil fuel)
- Emissions attributed to BPA's system vary by year largely due to hydro variability

Fuel mix and emissions reporting is provided consistent with state rules.



Environmental Attributes: RECs

Renewable Energy Credits/Certificates (RECs)

- Each REC represents 1 MWh of renewable generation
 - Eligible renewable generation is defined by state policy
- Tracked by the Western Renewable Energy Generation Information System (WREGIS).
- RECs created by WREGIS are month and generating unit specific.
- RECs can either be bundled (paired with physical/contractual delivery of power) or unbundled (separated from underlying generation).

Environmental Attributes: RECs

Provider of Choice REC allocation

- Bonneville will dispose RECs generated by the federal system to Provider of Choice customers based on the physical power purchased consistent with rate elections.
- Types of RECs Bonneville expects to produce during Provider of Choice
 - Incremental Hydro RECs – valid for RPS standards in OR and WA.
 - Non-Incremental Hydro RECs – by 2030 Bonneville expects to start generating “Washington RECs” for all federal hydro generation. These RECs are a result of CETA.
 - Other qualifying renewables – If Bonneville purchases energy from other renewable resources, such as wind or solar, it may receive RECs from those generators.
- Not all resources in the federal system will produce RECs

Regulatory Trends

- In the last several years states have enacted policies and programs intended to reduce greenhouse gas (GHG) emissions and incentivize renewable and non-emitting resource development.
- **Patchwork of programs across the region and west.** Each program is unique with different and sometimes conflicting rules: different eligible resources, different compliance mechanisms (e.g., RECs versus fuel source), different reporting granularity, different ideas of what constitutes double counting, etc.
- **This is an evolving area.** These policies are likely to continue to develop in the coming years, perhaps long after the Provider of Choice contracts are executed. Example: GHG accounting for organized markets.



State-by-State Details

Bonneville
POWER ADMINISTRATION



Renewable Portfolio Standards

Washington Energy Independence Act

- Requires utilities in WA state that have 25,000 customers or more to achieve energy conservation and renewable energy targets. Starting in 2020, utilities must serve 15% of their load with qualifying renewable resources.
- Utilities are allowed to use either bundled or unbundled RECs to meet the standard. The state only recognizes incremental hydro RECs if the utility owns the dam which produces the RECs.
- CETA modified several elements of this act.

Renewable Portfolio Standards

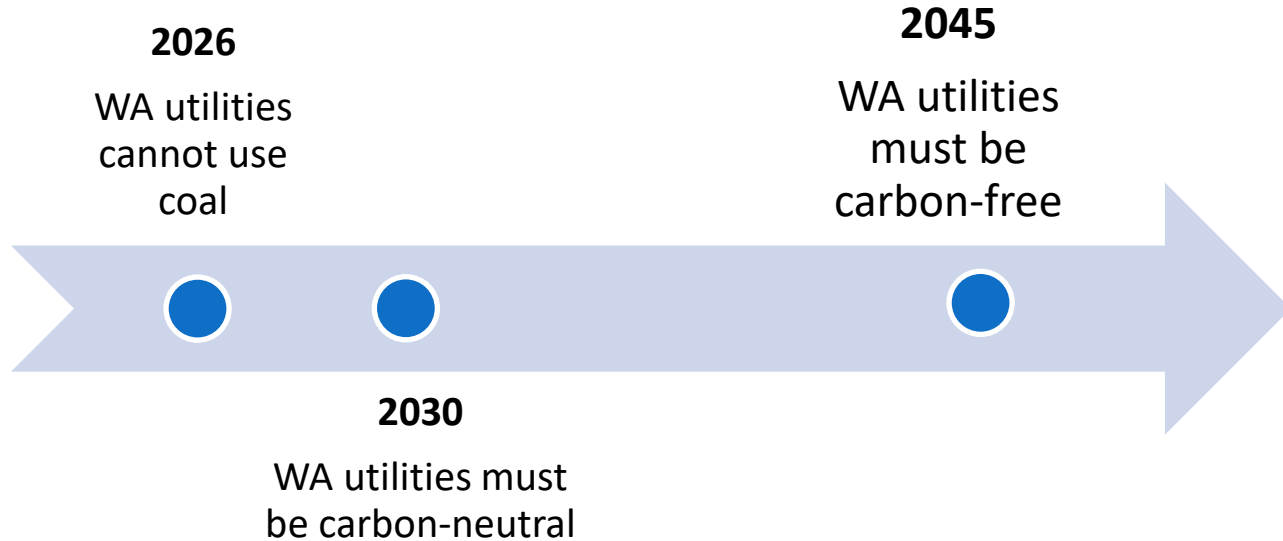
Oregon RPS

- Establishes different rules and renewable percentages for Oregon utilities based on type (IOU or COU) and size.
- Recognizes RECs from generation attributable to efficiency upgrades made at existing hydropower facilities after 1995.
- Utilities are allowed to use RECs generated by BPA's hydro resources only if those RECs are associated with Oregon load, i.e. if they have been allocated to a utility for power used in Oregon.
- RECs are evergreen and can be banked in perpetuity.

| % OR load utility represents | % Load Met with Qualifying Renewables |
|------------------------------|---|
| ≥ 3% | 25% by 2025 35% by 2030 50% by 2040 |
| >1.5% but <3% | 10% by 2025 |
| ≤ 1.5% | 5% by 2025 |

Washington: Clean Energy Transformation Act

The Washington legislature passed the Clean Energy Transformation Act (CETA) in 2019



Washington: CETA

CETA's 2030 Standard:

- Must use at least 80% renewable and non-emitting resources. Demonstrated by acquiring power + RECs in a single transaction; RECs must be tracked and retired.
 - BPA expects the entire federal hydro system will qualify as producing RECs by 2030 which may help WA customers meet CETA requirements.
 - No RECs for CGS; BPA attestation.
- May use up to 20% from fossil fuels, including unspecified sources.
 - Must be mitigated by purchasing unbundled RECS, doing an Energy Transformation Project, or paying an administrative fee.
- No double counting.
 - CETA views RECs as containing all environmental attributes. If the underlying power is sold into a state where the emissions attributes are claimed, the REC cannot be used.
 - Unclear how Washington plans to implement CETA double counting provisions for system sales.
 - Power sales under Provider of Choice sold into Washington will be paired with RECs, allocated consistent with system sales (that is, there is not a 1 MWh to 1 REC correlation). Power sales into other states will not necessarily be paired with RECs as emissions accounting in those states is based on fuel type.(and thus CETA RECs are irrelevant)

California: Cap-and-Trade Program

- Began in 2013 (2014 for electricity sector). Covers both in-state generation and electricity imported into the state, bi-laterally and through the EIM.
- Entity with compliance obligation for electricity imports is the First Jurisdictional Deliverer (FJD).
 - Bonneville is the FJD for sales into California for both firm power requirements service and sales of surplus.
- Emissions are based on fuel type only; no regard to the disposition of RECs.
 - Bonneville is an “Asset Controlling Supplier” (ACS), a term created by CARB which recognizes that Bonneville sells from a low carbon single system mix of resources. BPA computes its ACS emissions factor every year and CARB assigns it to sales of power from Bonneville’s system into the state.
- Allowances are distributed to industry, including retail utilities, for free to mitigate for impacts to ratepayers.

Washington: Cap-and-Invest Program

- Went into effect in 2023. Covers both in-state generation and electricity imported into the state, bi-laterally and through the EIM.
- Entity with compliance obligation for electricity imports is the “First Jurisdictional Deliverer” (FJD), a term that originated in California’s cap/trade program and works more readily in that setting where the BAA aligns with California’s state borders.
 - WA cap/invest law recognizes Bonneville is non-jurisdictional; Bonneville can voluntarily opt into the program.
 - Bonneville is not currently the FJD for federal power sales into Washington. Generally, entities purchasing power from Bonneville are the FJD. Bonneville has not decided whether it will opt to be the FJD in the future at some point.
- Emissions are based on fuel type only; no regard to the disposition of RECs.
 - Bonneville is an ACS. The Washington-assigned ACS emission factor could be different for California and Oregon.
- Allowances are distributed to retail utilities for free to mitigate for impacts to ratepayers.
 - Explicitly allows utilities to transfer allowances to Bonneville.

Oregon: GHG Reporting and HB 2021

- **GHG Reporting**
 - Electric utilities and Energy Service Suppliers (ESS) must report GHG emissions related to electricity serving end users in Oregon.
 - Emissions are based on fuel type only; no regard to the disposition of RECs.
 - Specified source purchases from Bonneville are at Bonneville's ACS emission factor. The Oregon-assigned ACS emission factor could be different from California and Washington.
- **HB 2021**
 - Passed by Oregon legislature in June 2021.
 - Directs the two largest state IOUs and ESSs to reduce GHG emissions by 80% by 2030, 90% by 2035, and 100% by 2040.
 - Consumer-Owned utilities are not covered under this program.
 - GHG Reporting to Oregon DEQ serves as basis for measuring compliance.
 - The Oregon PUC recently concluded that RECs did not need to be retired to demonstrate compliance.



REC Management During Provider of Choice

Kate Patton



POC Policy Positions: REC Allocation

- RECs will be disposed based on actual power purchased by a customer, with separate REC conveyance for power purchased at different rates.
 - RECs “bundled” with power purchases.
 - Bonneville believes this should provide a durable approach to disposing RECs that aligns with a variety of state programs. See POC ROD issue 128.
- This leaves a pool of RECs associated with other power sales available to Bonneville to use for other purposes, including:
 - Bundling RECs with surplus trading floor sales.
 - Retiring or retaining RECs where necessary to ensure attributes are not double counted across multiple state programs.

POC Policy Positions: REC Management

- Bonneville will transfer RECs either to a customer-held WREGIS account, a Bonneville managed subaccount, or a third-party WREGIS account designated by the customer.
- Bonneville will no longer offer a REC remarketing service, but RECs could be purchased, if available, from Bonneville's trading floor.

REC Management

Bonneville would like feedback on the following items:

- Timing of REC Allocation
 - Bonneville proposes to allocate RECs sometime between April and May of each calendar year.
- REC Management Election
 - Bonneville proposes an election at time of Contract Offer for term of contract. Customers could change election for each CY through written notice by December 31st of a given CY.
- REC Retirement for Subaccount Holders
 - Bonneville proposes to require written notice of a request for retirement of RECs in a Bonneville-managed WREGIS Subaccount. Customer would be charged for retirement fees.

REC Allocation for Calendar Year 2028

Bonneville proposes to use the REC disposition method from Regional Dialogue for all CY 2028 RECs, including those generated in October – December 2028.

- RECs are generally reported and retired on a calendar year (CY) basis. CY 2028 will span both the Regional Dialogue and Provider of Choice contracts, which have very different ways of disposing RECs.
- Limited RECs created in CY 2028 - Bonneville will likely only have incremental hydro RECs from seven dams in 2028.
- Bonneville would use the FY 2028 RHWMs to calculate each customer's share of both the January – September 2028 RECs and the October-December 2028 RECs.
- Bonneville believes this is the simplest accounting for CY 2028 but would appreciate customer feedback on this approach.



Allowance Management for Cap-and-Trade Programs

Alisa Kaseweter



Allowance Management

- Bonneville is the FJD for federal sales into California and may opt to be the FJD for federal sales into Washington.
 - If Bonneville incurs compliance costs from participation in these types of programs, how those costs are recovered will be determined in an applicable rate case.
- Allowances are the tradeable instruments remitted for compliance.
- Utilities may receive allowances at no cost from the state that may be used directly for compliance.
 - California and Washington allow those allowances to be transferred to Bonneville to be used for compliance, for example if Bonneville incurs compliance obligations for serving its customers in those states.

Allowance Management

Where Bonneville is the FJD under a cap-and-trade program:

- Bonneville expects that, if BPA incurs compliance obligations as a result of serving its customers who would otherwise incur those obligations themselves, then, if customers are receiving free allowances that can be used directly for compliance, the customer must either (1) transfer such allowances to BPA, or (2) otherwise make BPA (and all other customers) whole.
- Would result in inequities otherwise.

Allowance Management

- No current standardized contract language for this situation.
 - Bonneville has one customer with load in California that has special provision language in their Regional Dialogue contract for California's program.
- BP-24 includes language intended to “make Bonneville whole” in the event Bonneville opted to be the FJD for Washington's cap-and-invest program in 2024 or 2025.
- Bonneville requests feedback on whether standard template language should be developed for POC that would be applicable to multiple state programs.

Thank you.

