



California ISO

BOSR Overview of the Greenhouse Gas: Accounting and Reporting Approach *Draft Final Proposal*

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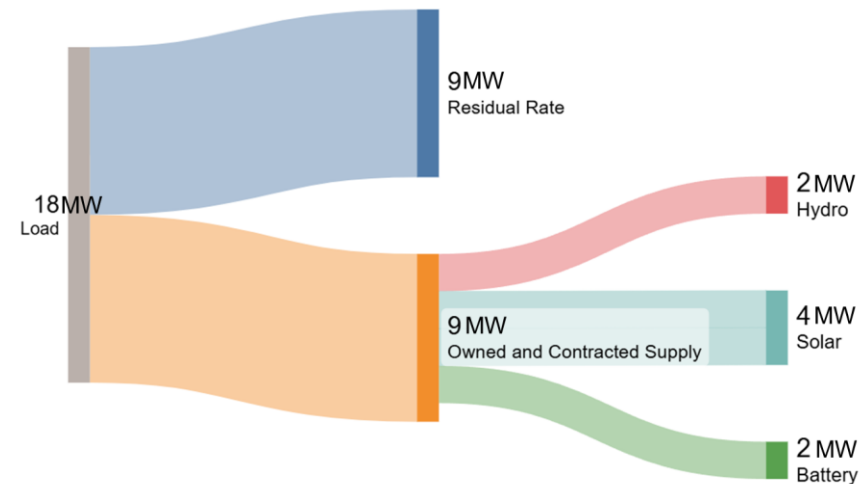
Background: The Accounting and Reporting Approach

- **Supported** by market participants operating under state, local, or corporate climate requirements not based on a price of carbon
- **Objective:** Not impact market dispatch. On an after-the-fact basis, total the MW and GHG emissions a reporting entity's load is accountable for based on market dispatch
- **Outcome:** Load-based approach, whereby reporting entities can use this report to demonstrate how a combination of their ownership and contracting decisions along with market dispatch resulted in a given emission inventory. This report also produces a market-wide hourly residual rate.

Approach: On an hourly basis, calculate:

	Dispatched owned resources
+	Dispatched contracted resources
-	Attributed owned/contracted
+/-	Priced region GHG area adjustment
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	Total
If Total > Load	
-	Allocate excess to the residual rate
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If Total < Load	
+	Add in @ residual rate
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	FINAL TOTAL

Page 2



Elements of the Report

Registration (ongoing)

- **Goal: Assign who owns what when**
- Resources associated and assumptions for excess energy and shared resources
- Confirmation of ownership
- Other: Null power, out of market purchases, emission factors, load data

Calculation

- **Goal: Total what is associated with report vs. residual rate(s)**
- Allocate MW and emissions to applicable: reporting entity, GHG pricing region, or market-wide residual rate

Report

- **Goal: Provide transparency**
- Report to entity: Inputs and assumptions as well as the total MW and emissions by own portfolio vs. residual rate
- Public reports: fuel report, residual rate data set, allocation data, null power volumes, and excess energy option

State Deference

- The Accounting and Reporting approach is intended as a tool for reporting entities, regulators, and others for informational purposes.
- This report is not intended to supplant or replace applicable regulatory requirements. State or local regulators will determine whether or not it meets applicable requirements and if it can be used by market participants to support compliance.
- Areas of state deference flagged, include:
 - The report's use for compliance purposes
 - Which excess energy option may be used, and how frequently it can change
 - Which emission factors to use
 - If out of market purchases should be included in the report

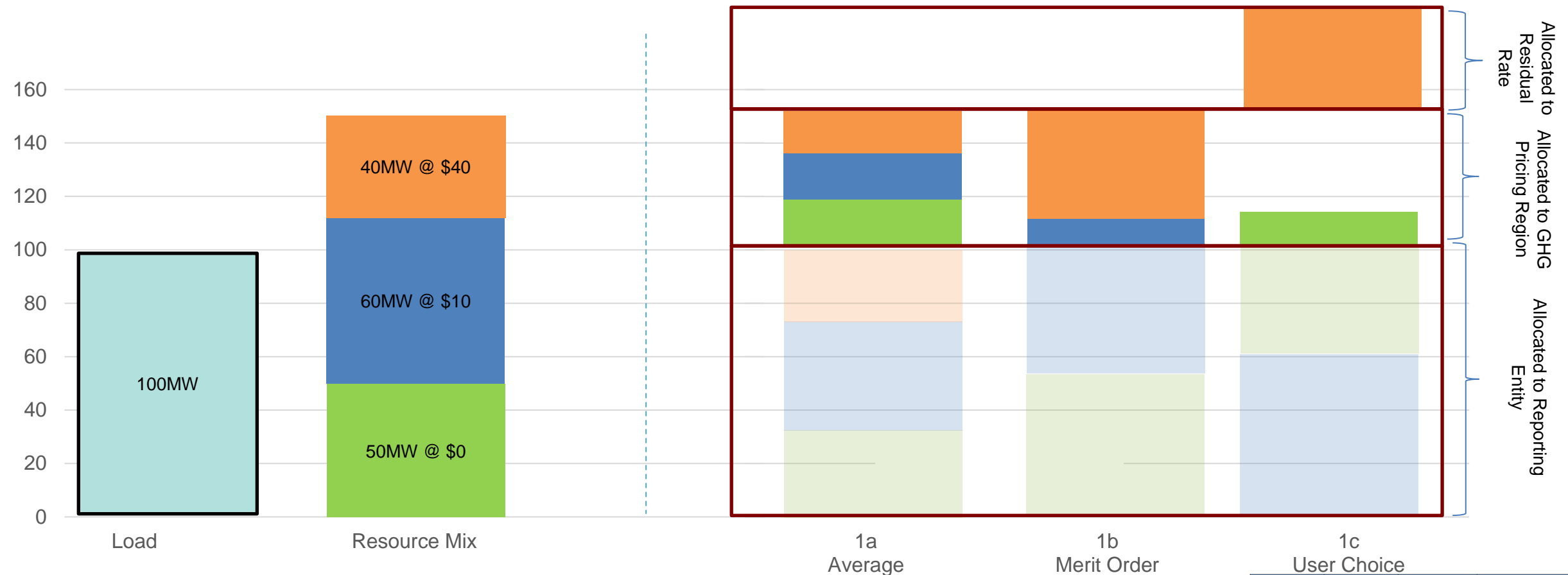
Possible State Policy Crossover Topics: Null Power

- **Null power:** Renewable generation that is no longer bundled with its RECs
- **Background:** States approach null power differently
 - Some states (WA) view not addressing null power as resulting in double counting and could undermine some market participant's state compliance
 - Other states (OR) have regulations that do not require accommodations for null power
- **Stakeholder Perspectives:**
 - Null power accounting considerations should be included (WA UTC, WA Commerce, PGP)
 - Do not accommodate REC/null power as it is a separate accounting approach (CARB, NVE, PAC, PGE, OR Agencies) or provide data in a format that allows the state to individually decide how to treat null power (OR Agencies)
- **Draft Final Proposal Approach:**
 - Defaults to WREGIS registered resources as null power unless an entity flags the REC has been transacted or retired to mitigate implementation burden and prevent double counting
 - Presents the residual rate data set to include hourly data with and without null power to accommodate OR and WA regulatory approaches

Possible State Policy Crossover Topics: Excess Energy Option

- **Background:** The excess energy option a reporting entity chooses ultimately impacts the residual rate. The methodology is used to determine what MW and emissions are allocated to their own report versus the residual rate.
- **Stakeholder Perspectives:**
 - PAC: Only allow average
 - SDG&E: Only allow merit order
 - AZ Utilities: Disallow user choice
 - Preserve flexibility: BPA, PGP, WTPF, PGE, Singularity (w/RPS exceptions), OR Agencies
- **Draft Final Proposal Approach:**
 - Maintains flexibility
 - Defers to states on if they will direct their market participants to use a certain excess energy option

Key Design Element: Excess Energy Options: Allocation to Reporting Entity vs. GHG Pricing Region vs. Residual



	MW	\$/MWh	MT CO ₂ e/MWh
Load	100		
Generation	150		
*Hydro @ ACS	60	\$10	0.03
*Gas	40	\$40	0.4
*Solar	50	\$0	0
Residual Rate	1,000		0.5

Possible State Policy Crossover Topic: out-of-market purchases and WEIM non-participating resources

- **Background:** The ISO does not have dispatch information for either:
 - **Out-of-market purchases:** A purchase from a resource not located in either a WEIM or EDAM BAA
 - **WEIM non-participating resources:** A resource that is in a WEIM BAA but does not participate in the WEIM's real time market
- **Issue:** Philosophical divide on if the Accounting and Reporting approach should reflect the MW and emission an entity is responsible for in total vs. responsible for in the ISO's footprint
- **Stakeholder Perspectives:**
 - Some states: Concerns about accuracy of data outside ISO's jurisdiction and impact on residual rate
 - WTPF: Can be added later by the Reporting Entity (agrees it can impact the residual rate, but is offering an implementation offramp if collecting this data is difficult)
 - Most stakeholders: Include
- **Draft Final Proposal:**
 - Optional to include based on state requirements
 - Will be called out in the inputs and assumptions private report

Possible State Policy Crossover Topic: Emission Factors

- **Background:** The ISO largely only has emission factors for California resources
- **Stakeholder Feedback:** Mixed feedback on what default approach to take for emission factors
- **Draft Final Proposal Approach:** Suggests a Business Practice Manual update to require all market participants to include their emission factors for their resources in the Master File

Possible State Policy Crossover Topic: Out of Market Data

- **Background:** The report intakes voluminous non-market data (contracts, dispatch assumptions, load data, etc) at an hourly granularity
- **Stakeholder Perspectives:**
 - PGE: Requesting third party verify data accuracy
 - CARB: Recognition of implementation challenges and data integrity with large volumes of data transfer
- **Draft Final Proposal Approach:** Recognition the report is based on a combination of Reporting Entity supplied information and market data

Proposed 2025 schedule

- 7/16: Publish Draft Final Proposal
- 7/21: Stakeholder Working Group Meeting
- 8/20: Comments Due
- 9/1: Publish Final Proposal
- 9/10: Western Energy Markets Board Meeting Decisional Item

APPENDIX

Key Terms

- **Attribution:** An in-market (EDAM or WEIM) GHG award to serve demand in a GHG regulation area
- **Allocation:** An assignment of MW and associated emissions that occurs in the Accounting and Reporting approach. This could be an allocation to a reporting entity, to a pricing region, or to the residual rate.
- **GHG Pricing Region/GHG Regulation Area:** A geographic area that has a GHG pricing policy in place, such as California's cap-and-trade program or Washington's cap-and-invest.
- **Null Power:** Any generation from renewable resources without RECs.
- **Out-of-market purchase:** A purchase from a resource not located in either a WEIM or EDAM BAA.
- **REC (Renewable Energy Credit):** A REC represents the environmental attributes, but not the electrons, of 1 megawatt hour (MWh) of renewable energy generation on the electricity grid. They are used to track when and where renewable energy is generated, who it is sold to, and who is using it.
- **Residual Rate:** The emissions associated with the MW of unowned, unclaimed, or allocated energy delivered to customers on the electricity grid
- **Reporting Entity:** Encompasses any market participant (i.e., LSEs, IPPs, federal power marketing administrations, etc.) that elect to have a report produced using the Accounting and Reporting approach.
- **WEIM non-participating resource:** A resource that is in a WEIM BAA but does not participate in the WEIM's real time market.