

**DOCKETED**

<b>Docket Number:</b>	21-OIR-01
<b>Project Title:</b>	Rulemaking to Amend Regulations Governing the Power Source Disclosure Program
<b>TN #:</b>	252405
<b>Document Title:</b>	Presentation - Proposed Updates to Power Source Disclosure Regulations
<b>Description:</b>	N/A
<b>Filer:</b>	Donnie Cox
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	9/25/2023 4:21:29 PM
<b>Docketed Date:</b>	9/25/2023



# Proposed Updates to Power Source Disclosure Regulations

September 2023



# Housekeeping

1. Webinar is being recorded via Zoom and there is a court reporter.
2. For help with zoom,
  - Type your questions into the Q&A window.
  - Contact Zoom at (888) 799-9666 ext. 2, or the CEC Public Advisor at [publicadvisor@energy.ca.gov](mailto:publicadvisor@energy.ca.gov), or by phone at (916) 957-7910.
3. Presentation, proposed regulations, staff paper, and hourly reporting template in **21-OIR-01** docket at:  
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-OIR-01>
4. Question and Answer and Public Comment periods held after presentations.
5. Written comments are due by 5:00 pm on October 24, 2023.
  - Submit through the e-commenting system (21-OIR-01) at  
<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=21-OIR-01>
6. Subscribe to the Power Source Disclosure List Serve at:  
<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=21-OIR-01>



# Agenda

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- 1) Opening Remarks
- 2) Proposed hourly accounting implementation
- 3) Proposed updates to annual accounting
- 4) Plans for data collection modernization
- 5) Q&A
- 6) Public Comment





# What is SB 1158?

**SB 1158 requires electricity retailers to report the electricity and associated GHGs serving hourly load**

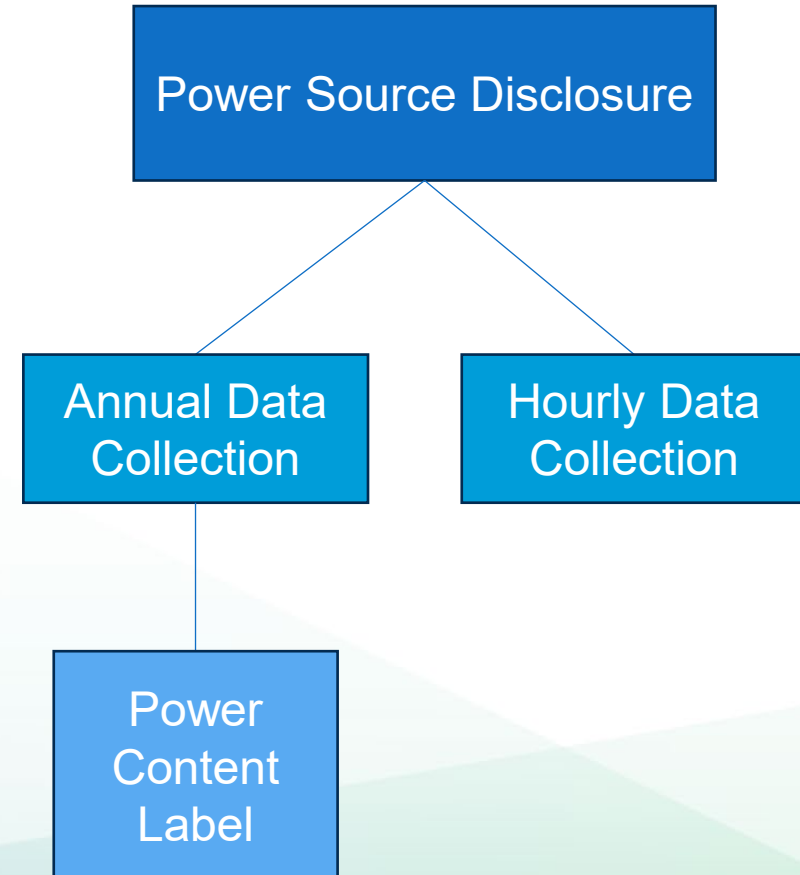
## Section 398.6 of the Public Utilities Code

### CEC:

Must adopt rules on reporting requirements by **July 1, 2024**.

### Retail electricity suppliers:

Must annually report their **hourly** loss-adjusted load, sources of electricity, and associated GHG emissions to the CEC starting **January 1, 2028**.





# How is SB 1158 data different?

- 24/7 carbon accountability
- Retailers claim GHG emissions by the hour
- Avoided emissions elsewhere on the grid don't reduce a retailer's GHG intensity
- Captures GHG emissions that are not included in other retail-level programs

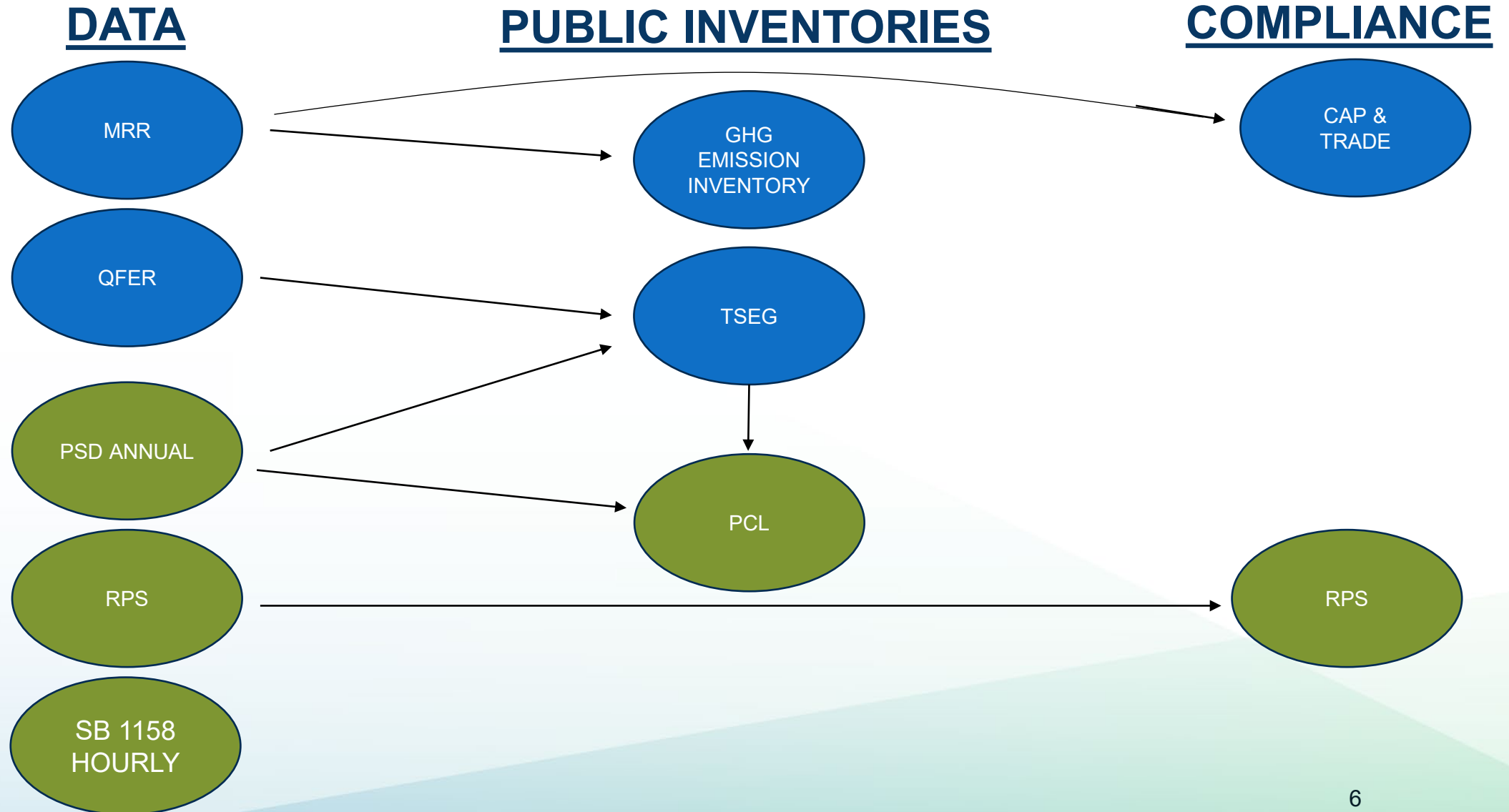
Accounting Method	Scope	Load-Matching
RPS	Retail sales	Annual
PSD annual data	Retail sales	Annual
SB 1158 data	Total load + losses	Hourly



# Where does SB 1158 data fit?

**SOURCE-BASED**

**RETAIL-BASED**





# How will SB 1158 data be used?

- Tracking progress toward 2030 GHG reduction targets set by CARB
- CEC website disclosure





# Tracking GHGs From Production to Consumption

GHG Emissions Recognized Under Different Accounting Regimes  
(2021 data)





# Guiding Principles

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- Accuracy
- Reliability
- Simplicity
- Transparency
- Accountability



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# Hourly Accounting



# GHG Emissions Accounting

- GHGs measured hourly based on electricity purchases from emitting resources
- Emissions remain attributable even if a retailer did not use the underlying electricity in an hour (losses, oversupply, generic resales)
  - Only a specified resale removes both electricity and emissions from a retailer's inventory

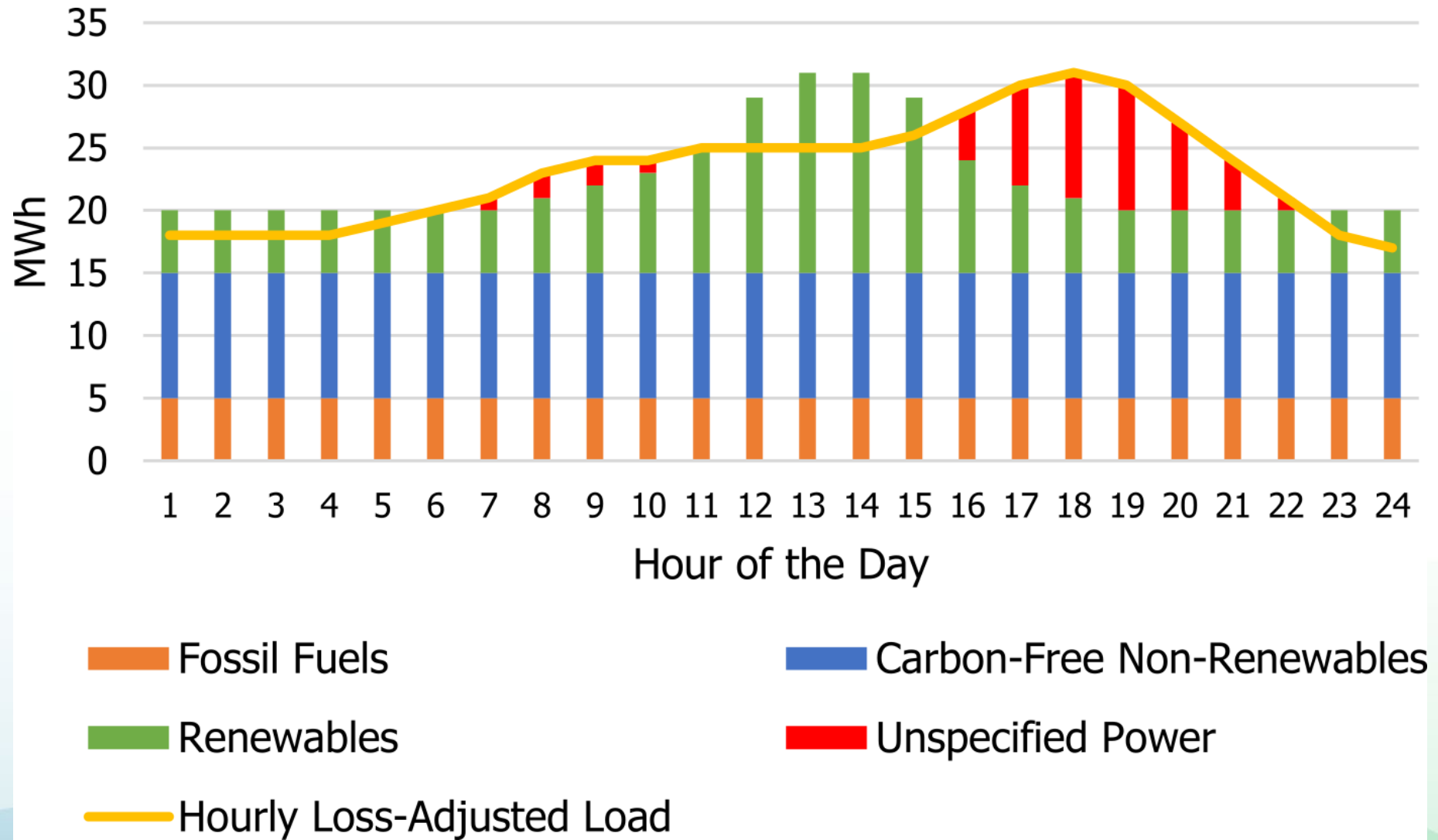


# Hourly Load Matching

Determines:

- Which specified resources were load-matched or oversupplied
- Hourly reliance on unspecified power and associated emissions

Hourly electricity purchases compared to loss-adjusted load





# Loss-Adjusted Load

SB 1158 defines this as total generation “that a retail supplier requires in order to provide for retail sales after electrical losses in transmission and distribution.”

- **Staff interpretation:** To align with CARB’s GHG targets (total in-state generation and imports, plus losses), loss-adjusted load must reflect retailer’s **total load plus losses** (includes self-consumption, municipal, other end uses)

## Losses for specified resources

- 4 percent increase of load to account for losses within California
- 2 percent additional increase for imported electricity

## Losses for unspecified resources

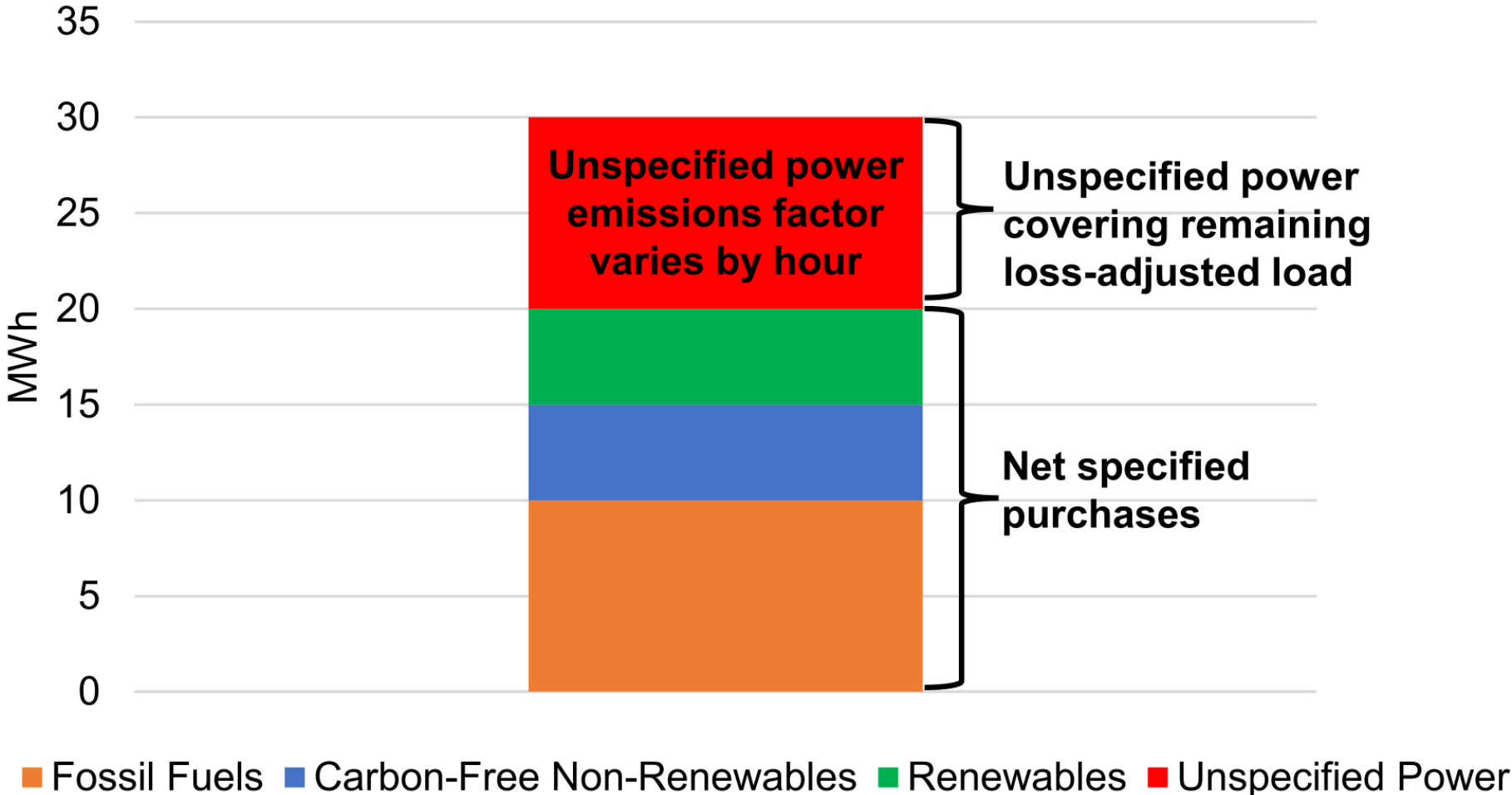
- Loss factor varies depending on the hourly profile of unspecified power





# Undersupply and Unspecified Power

An hour of **undersupply** is when loss-adjusted load > net specified purchases

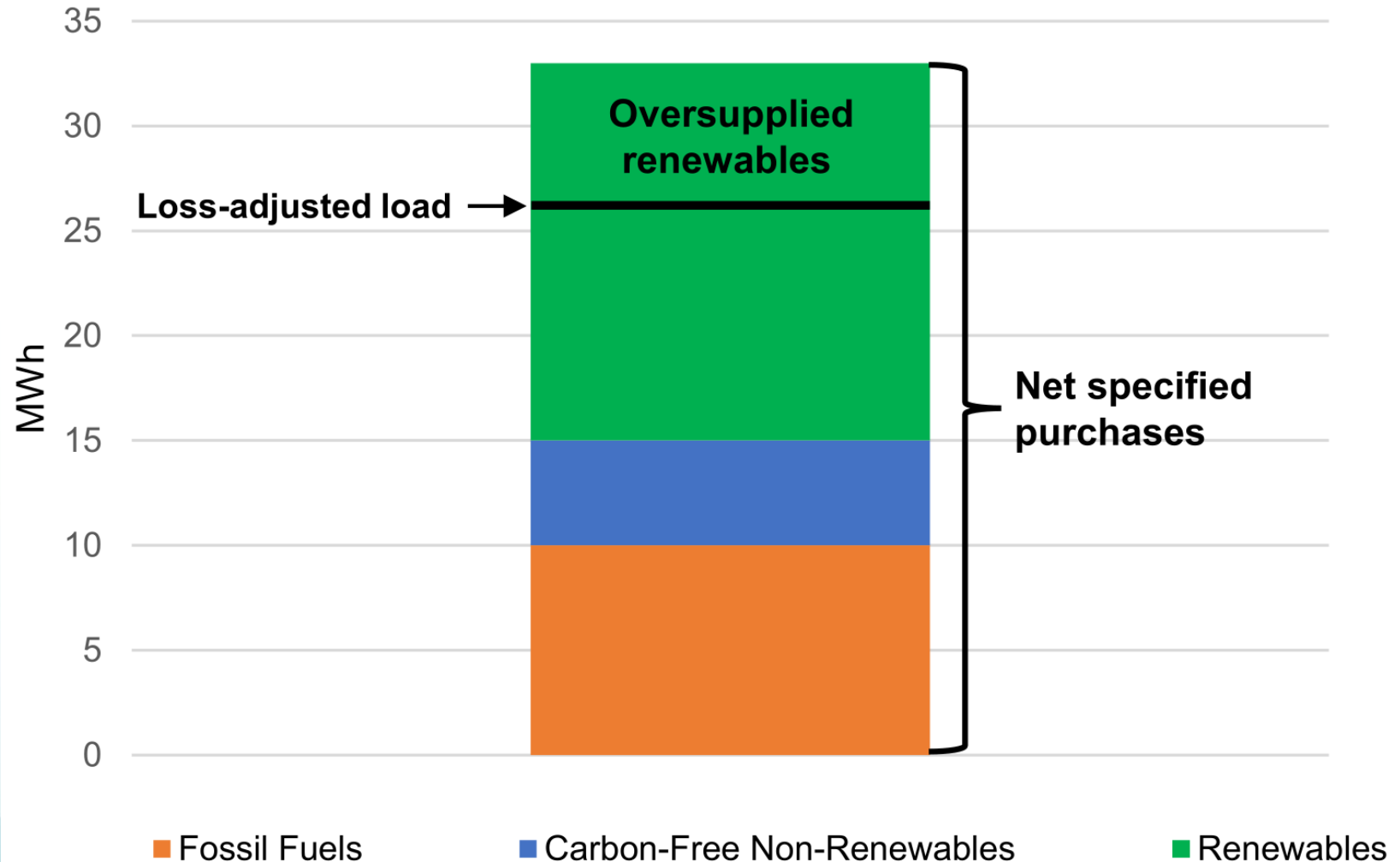




# Oversupply and Avoided GHG Emissions

Hourly **oversupply**:  
net specified purchases >  
loss-adjusted load

- “Avoided GHG emissions” measured if clean resources are oversupplied
- Avoided emissions **not factored into a retail supplier’s overall emissions total**

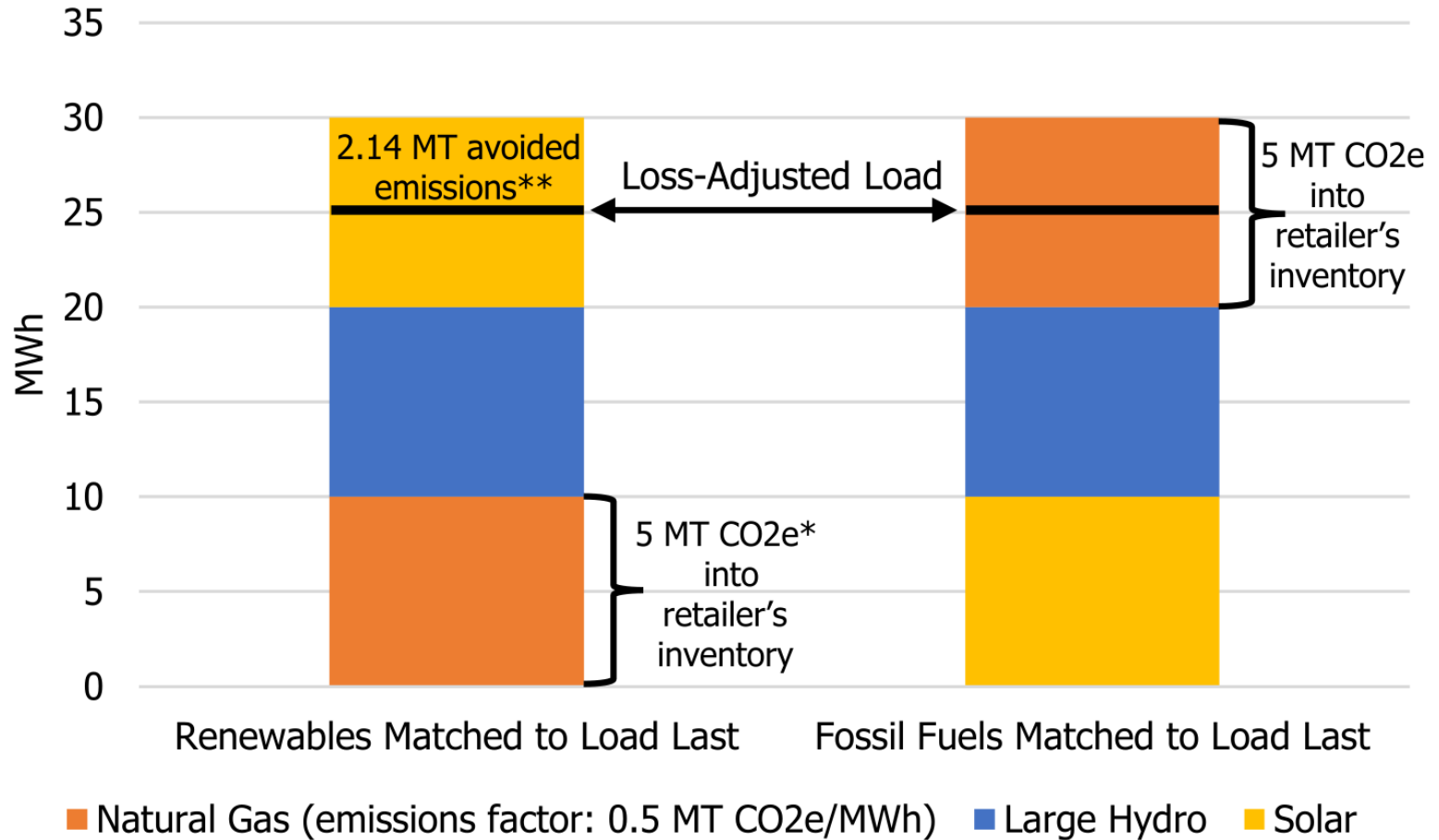




# Stacking Order of Resources

The order that resources are matched to load (**stacking order**) does not change the amount of GHGs released into the atmosphere and thus attributable to a retailer

Chosen stacking order determines the measurement of avoided emissions





# Addressing Hourly Data Gaps

PSD's Request for Information (April 2023) revealed that **some hourly data may be unobtainable.**

- If the hourly distribution of the resource is not known, a retail supplier will use the proxy distribution that the CEC establishes.
- For resources allocated to multiple parties or with multiple buyers, each purchaser will claim their proportional share of the electricity based on their percentage of the overall purchase.



# Summary of Key Points

## Statutory requirements

- Hourly load matching
- Hourly variable unspecified power emissions factor
- Avoided GHGs do not impact retailer GHG intensity

## Clarification of statutory requirement

- Loss-adjusted load = total load + losses

## Program necessity

- Retailer retains all procured GHGs
- Proxy data to estimate missing hourly data



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# Annual Accounting





# Current Annual Accounting

- Total procurements and retail sales are annually reported
- Only power sources and emissions of retail sales are disclosed on the **power content label** ( $\approx 90\%$  of total load)
- Lowest GHG resources assigned first to retail sales

2021 POWER CONTENT LABEL						
Baldwin Park Resident Owned Utility District						
<a href="http://bproud.baldwinpark.com">http://bproud.baldwinpark.com</a>						
Greenhouse Gas Emissions Intensity (lbs CO <sub>2</sub> e/MWh)			Energy Resources	Green Choice	Smart Choice	2021 CA Power Mix
2021 Green Choice	2021 Smart Choice	2021 CA Utility Average	<b>Eligible Renewable<sup>1</sup></b>	<b>31.4%</b>	<b>27.2%</b>	<b>33.6%</b>
<b>690</b>	<b>738</b>	<b>456</b>	Biomass & Biowaste	0.0%	0.0%	2.3%
			Geothermal	0.0%	6.9%	4.8%
			Eligible Hydroelectric	0.0%	0.0%	1.0%
			Solar	4.5%	1.4%	14.2%
			Wind	26.9%	18.9%	11.4%
			<b>Coal</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.0%</b>
			<b>Large Hydroelectric</b>	<b>0.0%</b>	<b>0.0%</b>	<b>9.2%</b>
			<b>Natural Gas</b>	<b>0.0%</b>	<b>0.0%</b>	<b>37.9%</b>
			<b>Nuclear</b>	<b>0.0%</b>	<b>0.0%</b>	<b>9.3%</b>
			<b>Other</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.2%</b>
			<b>Unspecified Power<sup>2</sup></b>	<b>68.6%</b>	<b>72.8%</b>	<b>6.8%</b>
			<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Percentage of Retail Sales Covered by Retired Unbundled RECs<sup>3</sup>:</b>				<b>70%</b>	<b>4%</b>	
<sup>1</sup> The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.						
<sup>2</sup> Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.						
<sup>3</sup> Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.						
For specific information about this electricity portfolio, contact:			<b>Baldwin Park Resident Owned Utility District</b> <b>626-214-1662</b>			
For general information about the Power Content Label, visit:			<a href="http://www.energy.ca.gov/pcl/">http://www.energy.ca.gov/pcl/</a>			
For additional questions, please contact the California Energy Commission at:			Toll-free in California: 844-454-2906 Outside California: 916-653-0237			

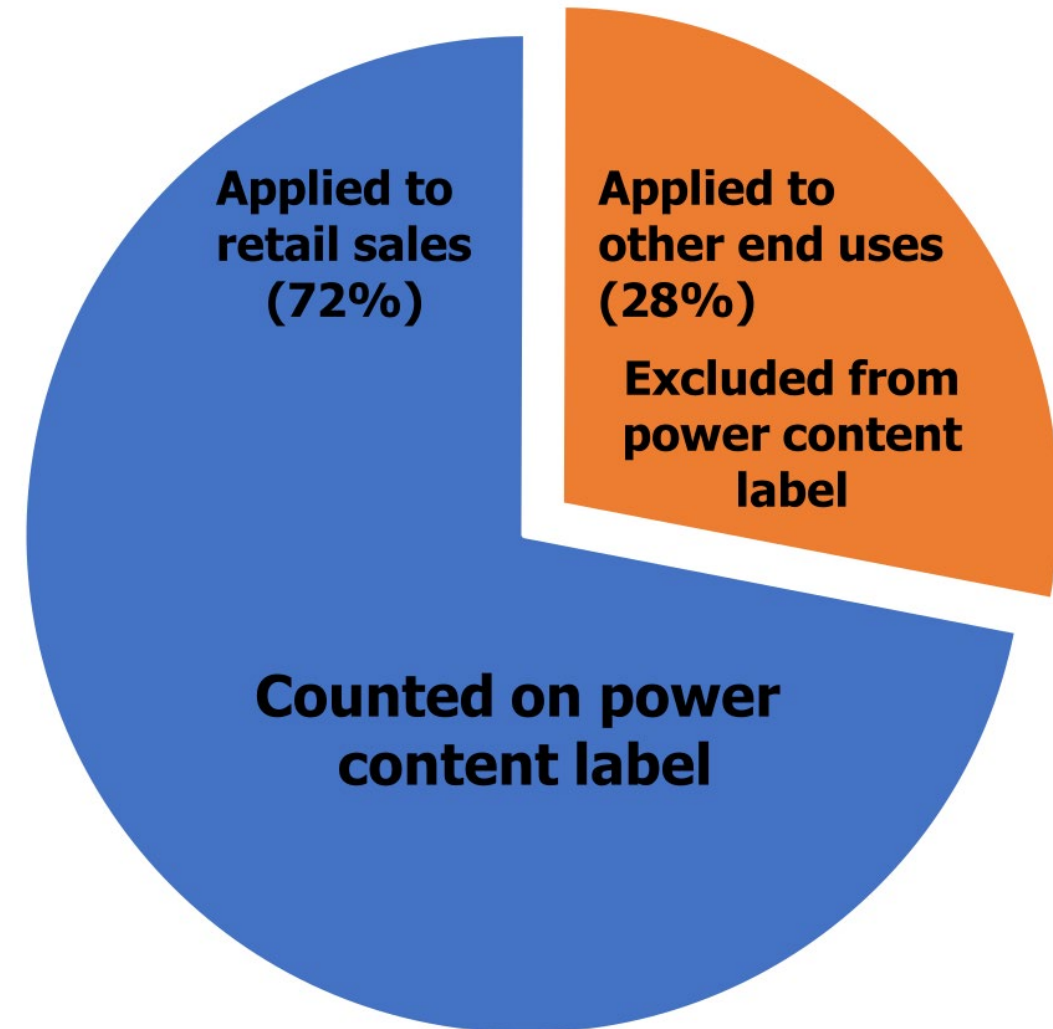


# Underlying Issues

PSD information must be “**accurate, reliable, and simple to understand.**”

- 14 million MWh of natural gas procurements and 5.9 million MT of emissions not disclosed on 2021 power content labels
- Excluding known power sources and emissions presents an **incomplete picture** to California consumers
- Costs of other end uses and line losses are passed down to ratepayers

Specified Natural Gas Reported to PSD, 2021

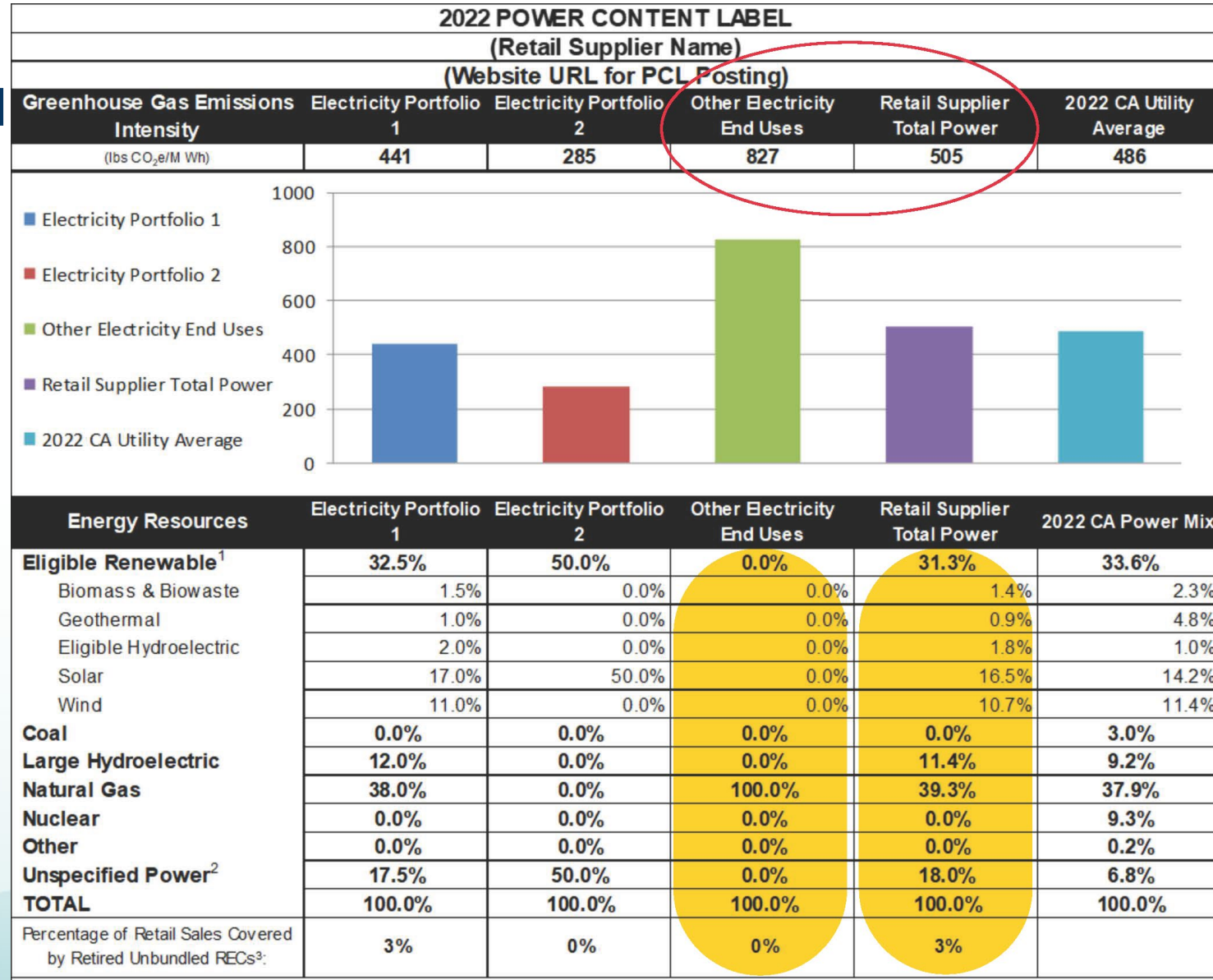




# Proposed Update

Staff proposes to display retail suppliers' complete electricity and emissions data on the power content label

- Additional column for “other electricity uses” that captures currently excluded power sources and emissions
- Calculate a retail supplier’s emissions intensity based on **total load plus losses**





# Additional Program Updates

**AB 242 (2021)**: Retail suppliers must publish power content labels to their website by October 1 annually, and make labels available in written and promotional materials by the end of each year.

- Draft regulations codify that the CEC may begin generating power content labels for retailers once new reporting infrastructure is in place.
- Public agencies only need to attest to their annual reports and not their power content labels.

The draft regulations also codify regulatory advisories from 2021 that

- New CCAs must begin reporting GHG data within 36 months.
- Retired unbundled RECs should be reported in association with a previous year's electricity portfolio, rather than according to the retirement year.



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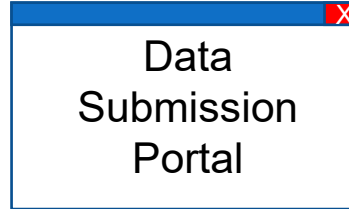
# Data Collection Modernization



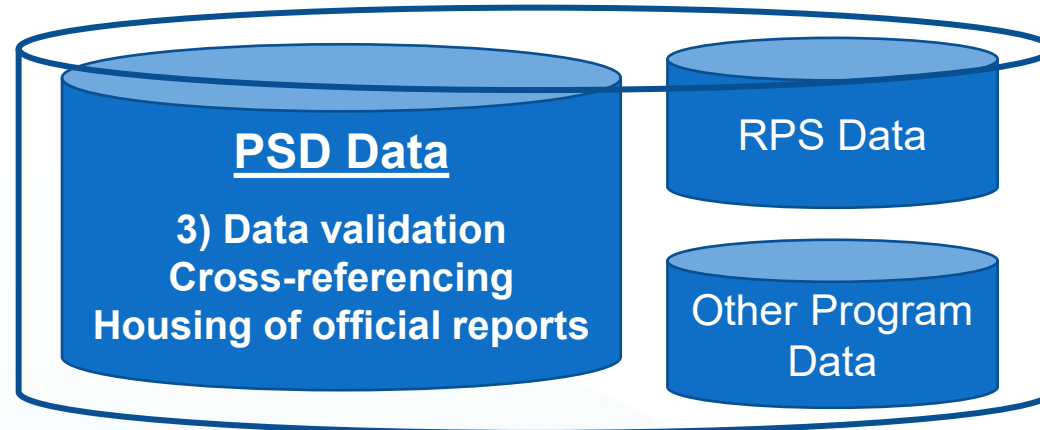
# Data Submission Portal and Data Warehouse



1) Power source and emissions data reported



2) Data transferred to CEC Data Warehouse, housed with other CEC data



5) Aggregated data (hourly and annual) published to CEC website



Retail Suppliers

4) Power content label (annual data) generated for retail suppliers to distribute to customers

2021 POWER CONTENT LABEL																																																							
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# Data Reporting and Processing

## Reported Data

- Load
- Gross specified procurements
- Specified resales
- Generic resales
- Storage charging (hourly only)
- Storage discharging (hourly only)

## Database/reporting form automatically calculates

- Losses
- Reliance on unspecified power
- Hourly/annual GHG emissions
- Annual GHG emissions intensity
- Unspecified power emissions factors (hourly only)
- Oversupply and avoided GHG emissions (hourly only)



# Next Steps and Timeline

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- October 24, 2023 – Public comments due
- January 2024 - Formal rulemaking/45-day language
- April 2024 - 15-day changes
- June 2024 - Adoption



# Question and Answer

## In person:

- Line up at the podium

## Zoom:

- Use the “raise hand” feature

## Telephone:

- Dial \*9 to raise your hand
- Staff will call on you to talk
- \*6 to mute/unmute your phone line or use the mute feature on your phone.

## Zoom/phone participants, when called upon:

- Use the raise hand feature
- Staff will call on you to talk
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- Alternatively, type your question in the Q&A window

- Limited to 1 representative per organization.
- Spell your name for the record.

## 3-Minute Timer





# Public Comment

## In person:

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## 3-Minute Timer



# Thank you!

**Technical Inquiries:** Jordan Scavo [jordan.scavo@energy.ca.gov](mailto:jordan.scavo@energy.ca.gov) (916) 704-3649

**General Inquiries:** Logan Clendening [logan.clendening@energy.ca.gov](mailto:logan.clendening@energy.ca.gov) (916) 805-7439

Slides and documents are posted in the docket (21-OIR-01)

<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-OIR-01>

## Written comments

Submit to the Docket Unit by 5:00 p.m. on October 24, 2023. Written comments may also be submitted by email. Include docket number 21-OIR-01 and “Rulemaking to Amend Regulations Governing the Power Source Disclosure Program” in the subject line and email to [docket@energy.ca.gov](mailto:docket@energy.ca.gov).



# Glossary

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- CARB – California Air Resources Board
- CEC – California Energy Commission
- GHG – greenhouse gas
- MRR – Mandatory Greenhouse Gas Reporting Regulation
- PCL – Power Content Label
- PSD – Power Source Disclosure
- QFER – Quarterly Fuel and Energy Report
- RPS – Renewables Portfolio Standard
- TSEG – Total System Electric Generation