

Renewable Energy Procurement and Power Content Reporting

10/07/2026



Introduction & Overview of Topics

The purpose of this review is to provide background information to the Executive Committee regarding renewable procurement and upcoming changes to power content reporting.

Topics:

- Compliance Landscape
- What is a Renewable Energy Certificate?
- Types of Renewable Energy Procurement
- Power Content Label Reporting
- Changes to Power Content Label
 - Emissions accounting
 - Line losses

Regulatory Landscape

Filing		Reporting Body	Est.	Data Reported					
PSD, PCL	Power Source Disclosure, Power Content Label	Energy Commission	1997	Load	RE	Hydro	Nuke	Unsp.	
RPS	Renewable Portfolio Standard	Public Utilities Commission	2020	Load	RE				
RCPPP	Reliable and Clean Power Procurement Program	Public Utilities Commission	Under review	Load	RE	Hydro	Nuke	Unsp.	RA

- Electricity Load by plan (Bright Choice and Renewable 100).
 - Renewable generation attributes from solar, wind, small hydroelectric, biomass, etc.
 - Large Hydroelectric carbon-free generation attributes.
 - Nuclear carbon-free generation attributes.
 - Unspecified generation attributes reflecting mix of resources from grid electricity.
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- Resource Adequacy for back-up power; compliance requirement for the grid's worst days.

What is a Renewable Energy Certificate?

An accounting tool for renewable attributes to fulfill the CPUC's RPS Program as defined under CPUC D.08-08-028 and implemented through multiple Senate Bills.

The program defines three Portfolio Content Categories (PCCs), or “buckets.”

PCC	Physical Renewable Energy	Renewable Energy Certificate
1	Generated in or delivered into a California Balancing Authority.	Certificate from same resource as energy.
2	Delivered to a non-California Balancing Authority; substituted with grid energy.	Certificate is not from same resource as energy.
3	Not paired or substituted with energy; AKA “Unbundled.”	Certificate is not from same resource as energy.

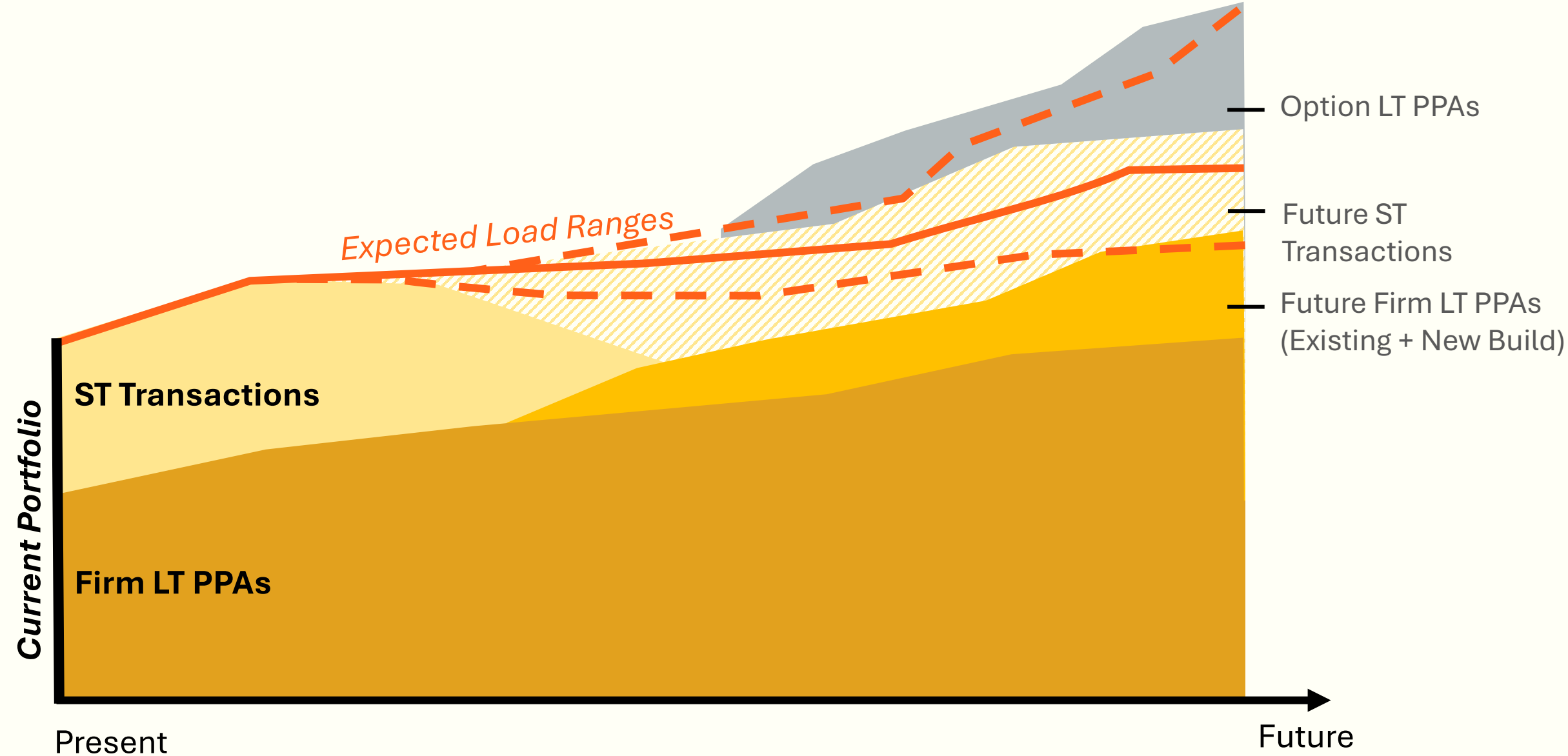


*RPS-compliant portfolio: $\geq 75\%$ PCC1s, $\leq 25\%$ PCC2s, and $\leq 5\%$ PCC3s.
Ava no longer procures PCC3s and will phase out PCC2s by 2030.*

Types of Renewable Energy Procurement

	Contract	Facility	Products	Benefits	Costs
Short-Term	Indexed	Existing	RECs	+ Portfolio Flexibility - Counterparty Credit Risk	+ Price Volatility Exposure - Portfolio Certainty
	Bundled	Existing	RECs RA Energy		
Long-Term	Fixed Power Purchase Agreement (PPA)	Existing	RECs RA Energy BESS	- Price Volatility Exposure + Portfolio Certainty - Development Risks	- Portfolio Flexibility + Counterparty Credit Risk + Operational Risks
		New-Build	RECs RA Energy BESS	- Price Volatility Exposure + Portfolio Certainty + Renewable Additionality	- Portfolio Flexibility + Counterparty Credit Risk + Development Risks + Operational Risks
	Option Power Purchase Agreement (PPA)	New-Build	RECs RA Energy BESS	- Price Volatility Exposure + Portfolio Flexibility + Renewable Additionality - Development Risks	+ Cost Premium + Portfolio Complexity + Operational Risks

Timeline of Renewable Energy Procurement

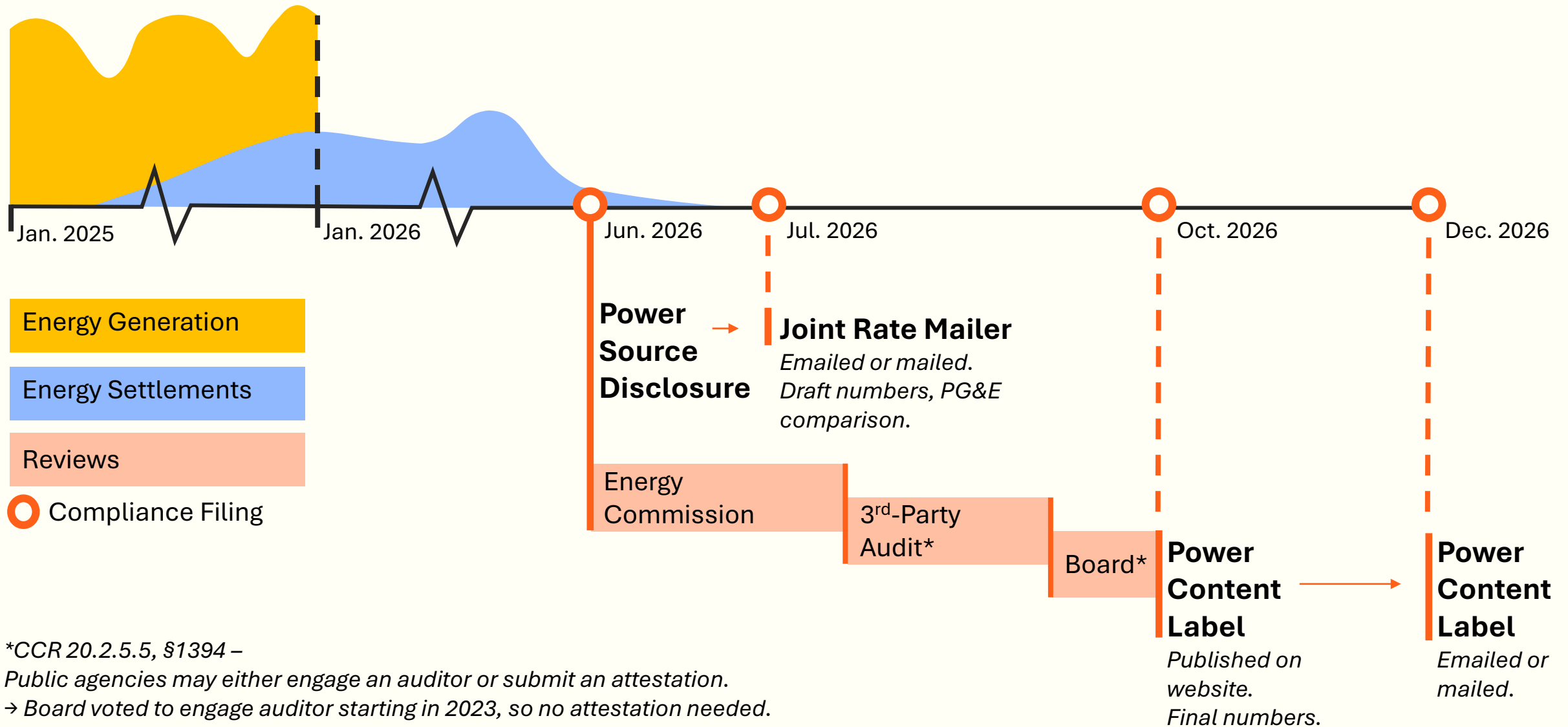


What is the Power Content Label?

- Published annually, based on the Power Source Disclosure Report for the prior calendar year's electricity generation from owned or contracted-for resources.
- Detailed breakdown of the sources of energy used to provide electricity.
- Submission is reviewed and approved by the California Energy Commission.

2024 POWER CONTENT LABEL			
Ava Community Energy			
	Bright Choice	Renewable 100	CA Utility Average
Greenhouse Gas Emissions Intensity (lbs of CO ₂ e emitted per megawatt hour)	221	0	359
Electricity Sources ■ Renewables and Zero-Carbon Resources ■ Fossil Fuels and Unspecified Power			
RPS Eligible Renewables	62%	100%	45%
Biomass & Biogas	10%	0%	2%
Geothermal	1%	0%	5%
Eligible Hydroelectric	2%	0%	2%
Solar	18%	77%	23%
Wind	31%	23%	14%
Large Hydroelectric	34%	0%	10%
Nuclear	0%	0%	11%
Emerging Technologies	0%	0%	0%
Other	0%	0%	0%
Natural Gas	0%	0%	10%
Coal & Petroleum	0%	0%	2%
Unspecified Power (primarily fossil fuels)	4%	0%	22%
Total	100%	100%	100%

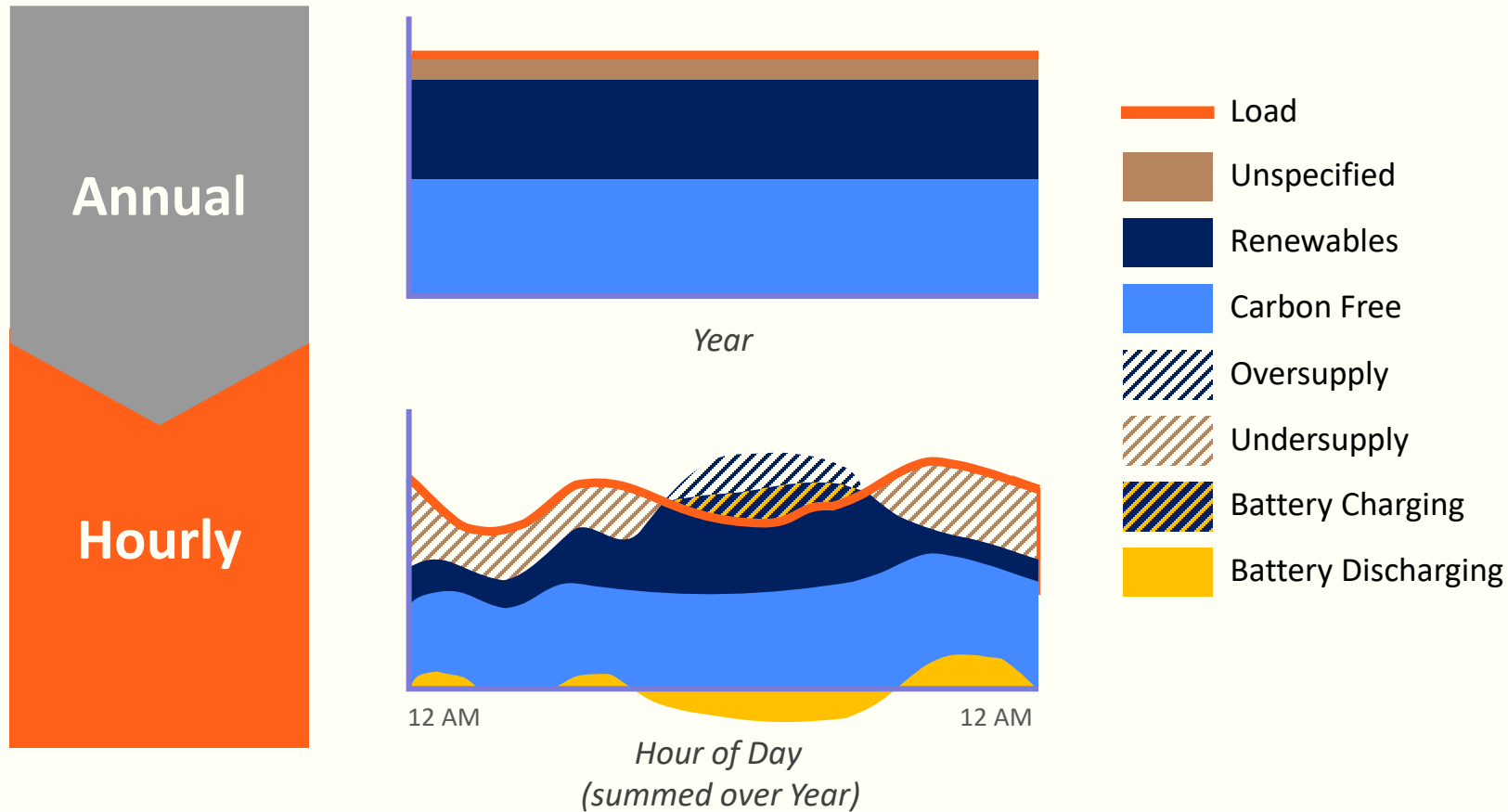
What is the Power Content Label?



Load Matching Interval

2028 Upcoming Changes to Power Source Disclosure

→ Increased accounting granularity.



Load Matching Interval

2028 Upcoming Changes to Power Source Disclosure

- Introducing hourly load accounting in addition to existing annual load accounting.
- Sums hourly generation over reporting year to each hour-of-day.

Loss-Adjusted Load Analysis			
Hour of Year	Load	Battery Charge	Battery Discharge
12:00 AM	200	-	-
...			
12:00 PM	450	100	-
...			
11:00 PM	520	-	20

Resource-Specific Power Procurement		
Little Bit O' Wind	Always Sunny	Massive Hydro
100	-	100
90	300	120
70	-	110

- Captures hourly undersupply, oversupply, and battery storage charge-discharge.
- Effective for 2028 submission for **Calendar Year 2027** Power Source Disclosure.
- Hourly load accounting will **not** affect emissions accounting methodology.

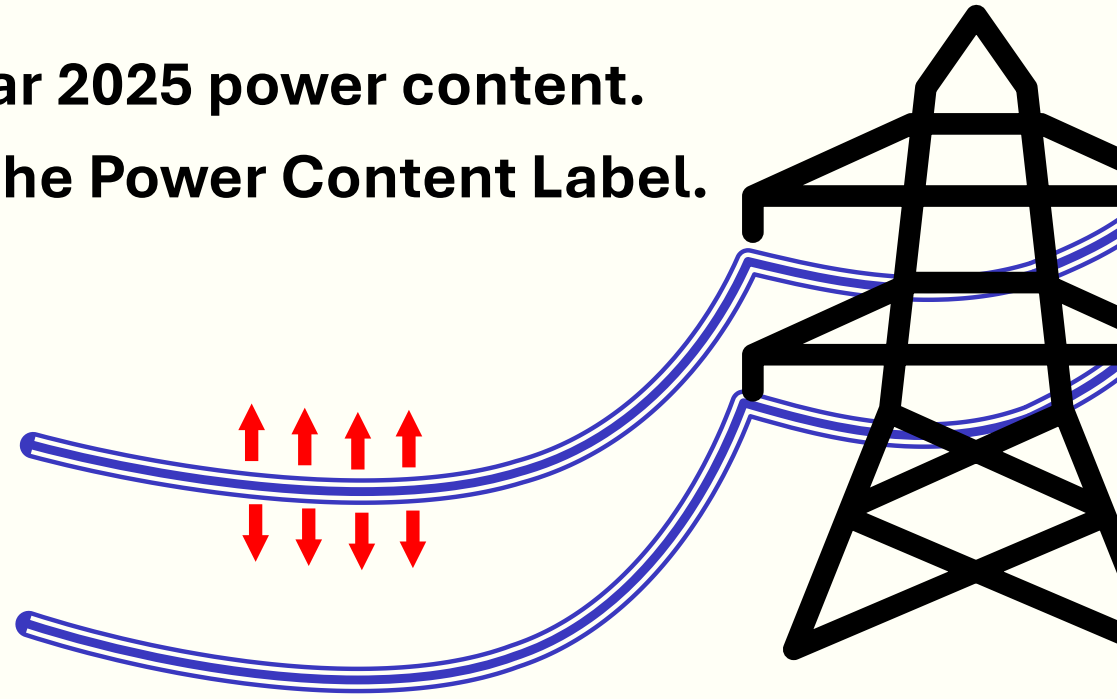
What are Line Losses?

- Line losses account for energy dissipating over transmission and distribution lines.
- Compliance reporting change will capture the emissions associated with the fraction of electrons that escapes as heat into the environment as they travel across power lines, from a power plant to the customer.
- **Effective for 2026 submission for Calendar Year 2025 power content.**
- **Line losses reporting is a new requirement in the Power Content Label.**

California Code of Regulations, 20.2.5.5 (July 2025)

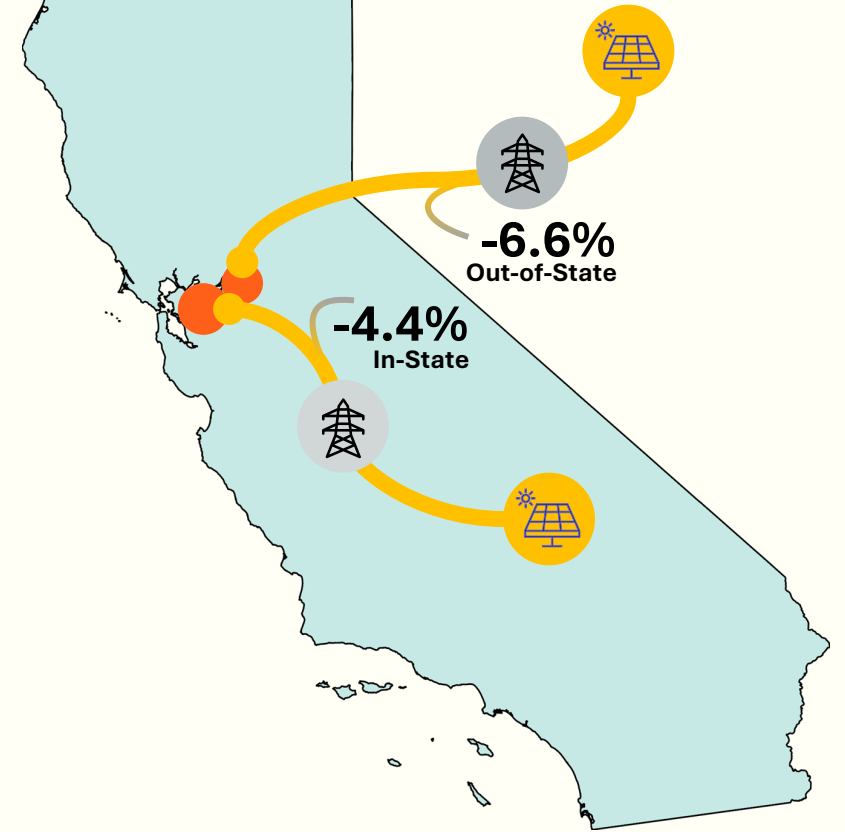
§1392 (a.8.A) – “A retail supplier’s transmission and distribution losses shall be determined by applying a loss factor to each specified resource and to unspecified power.”

§1393 (b.2.B) – “retail suppliers shall report transmission and distribution losses associated with each procurement.”



How much are Line Losses?

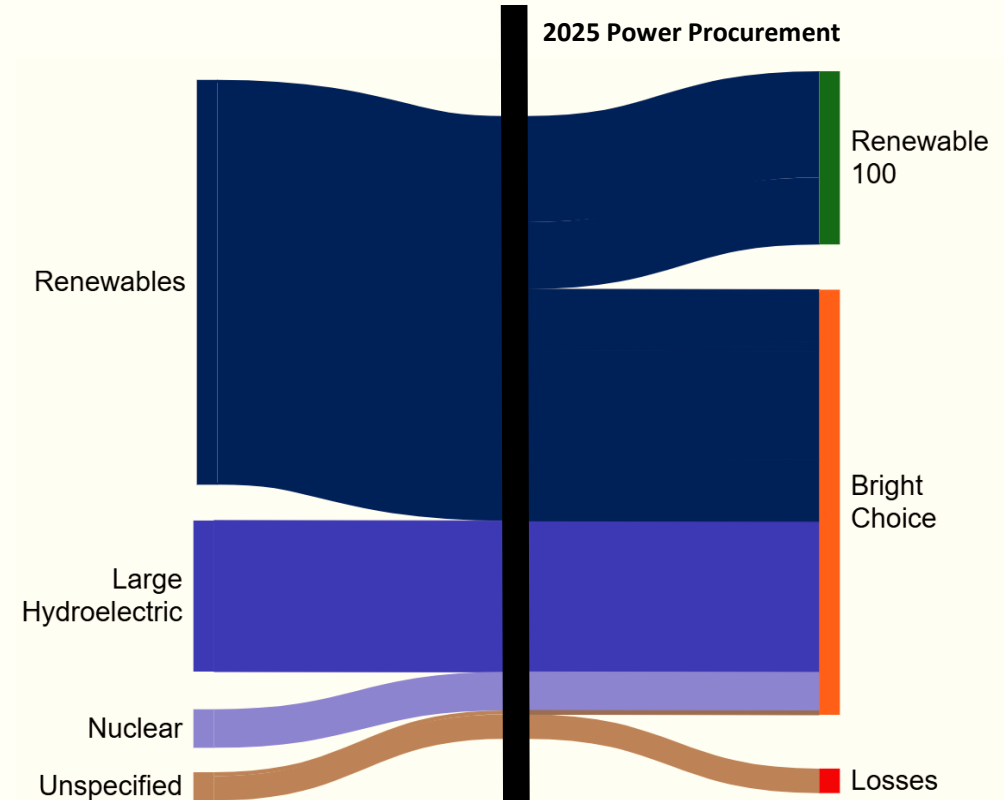
- Losses are assigned to each specified resource by location (in-state or out-of-state.)
- Additional specified procurement can cover some losses...
 - ...but said procurement is also subject to line losses.



Line Losses

→ Increased ‘Unspecified Power’ and reduced RE/CF in total loss-adjusted load.

2025 Summary Power Content Label	Bright Choice	Renewable 100	Total Retail Sales	Total Loss- Adjusted Load
GHG Emissions Intensity	194	0	134	169
<i>Biomass & Biogas</i>	12%	0%	9%	8%
<i>Geothermal</i>	1%	0%	1%	1%
<i>Eligible Hydroelectric</i>	1%	0%	1%	1%
<i>Solar</i>	26%	61%	36%	34%
<i>Wind</i>	15%	39%	21%	20%
Total Renewables	55%	100%	68%	64%
Large Hydroelectric	36%	0%	25%	24%
Nuclear	9%	0%	6%	7%
Unspecified Power	1%	0%	1%	4%



Conclusion

- This presentation was an informational review and no feedback is required at this time.
- The required regulatory changes relation to the Power Content Label will be implemented for upcoming and future filings.
- The emission reporting changes may be an important consideration for future procurement decisions.
- Staff will continue to evaluate the potential impacts to portfolio management and consider bringing forth future items to the board related to Ava's power procurement targets.