

Ava Compliance Period Procurement Methodology

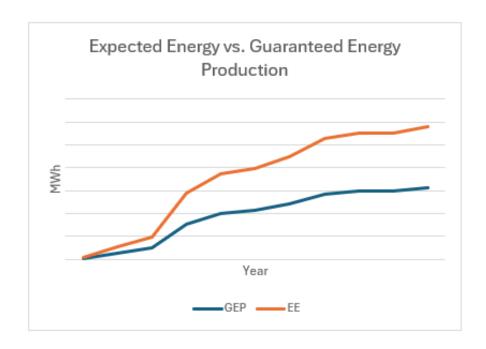


Introduction

- Ava has discussed implementation of a multi-year procurement period for determining compliance to our agency's voluntary clean energy procurement targets
 - The board preliminarily approved this concept in the recent 25-26 budget
 - This presentation is providing implementation details to the FAP sub-committee prior to seeking formal board approval in the July board meeting
- Topics to be reviewed:
 - Guaranteed Energy Production vs. Expected Energy Overview and Challenges
 - California Renewable Portfolio Standard (RPS)
 Compliance Period Methodology Overview
 - o RPS Compliance Period 4 Comparison (PG&E and Ava)
 - Benefits of a Compliance Period
 - Ava Compliance Period Procurement Methodology Scenarios

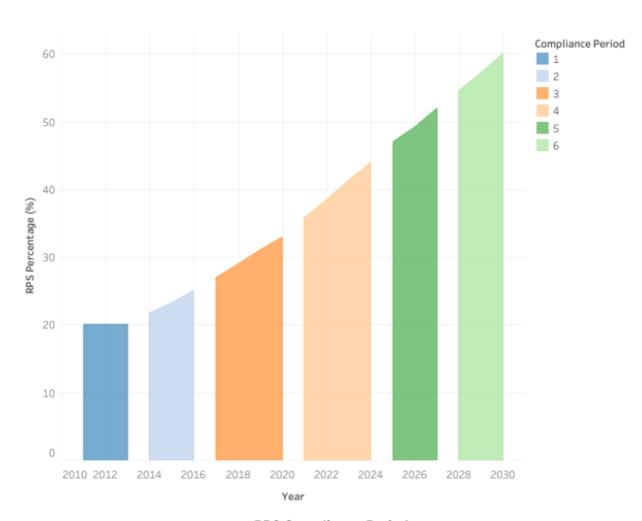
Guaranteed Energy Production (GEP) vs. Expected Energy (EE)

- Reflects the band between the minimum and maximum
- Energy from variable resources is subject to fluctuations based on weather patterns and time of day, making it less predictable.
- The more contingent, as delivered projects in the portfolio, the greater the band and therefore greater potential for over procurement.
- GEP is included in Ava's proforma as the EE multiplied by a specific percentage based on technology (85% solar and 75% wind).



CA Compliance Period Procurement Methodology

- CA legislatively mandated Renewable Procurement Standards (RPS) include Compliance periods of 3-4 years whereby load serving entities can bank/retire RECs in different years relative to the generation
- Allows for management of variable resources like renewable energy and hydro in meeting compliance obligations while increasing procurement of ghgfree resources over an extended timeframe
- Ava can apply a similar approach for voluntary procurement targets with 3-4 year procurement periods
- This methodology provides a tool in managing finances in consideration of budget surplus and deficit projections by creating a balancing mechanism across the period
- Beyond 2030, LSEs have an ongoing 3year compliance period requirement that currently maintains a 60% renewables target.



RPS Compliance Periods

RPS Compliance Period 4 Comparison

PG&E average 35.5%

	Compliance Period 4										
	Co	mpliand	e Period	14							
	2021	2022	2023	2024							
Eligible Renewable	47.7%	38.3%	32.8%	23.0%							
Biomass and Biowaste	4.2%	4.6%	3.4%	3.0%							
Geothermal	5.2%	0.5%	0.3%	0.0%							
Eligible Hydroelectric	1.8%	1.8%	2.5%	1.0%							
Solar	25.7%	22.0%	20.2%	14.0%							
Wind	10.9%	9.4%	6.3%	4.0%							
Coal	0.0%	0.0%	0.0%	0.0%							
Large Hydroelectric	4.0%	7.6%	13.8%	12.0%							
Natural Gas	8.9%	4.8%	0.0%	2.0%							
Nuclear	39.3%	49.3%	53.4%	63.0%							
Other	0.0%	0.0%	0.0%	0.0%							
Unspecified Power	0.0%	0.0%	0.0%	0.0%							
TOTAL	100.0%	100%	100.0%	100%							

Ava average 52.1%

Co	Compliance Period 4											
2021	2022	2023	2024									
42.3%	49.4%	54.8%	61.8%									
0.5%	1.5%	13.0%	10.8%									
0.0%	0.8%	2.2%	0.9%									
0.2%	1.4%	2.5%	1.9%									
19.0%	18.1%	5.6%	17.4%									
22.6%	27.6%	31.6%	30.8%									
0.0%	0.0%	0.0%	0.0%									
15.9%	21.9%	34.1%	33.7%									
0.0%	0.0%	0.0%	0.0%									
1.7%	0.2%	0.0%	0.5%									
0.1%	0.0%	0.0%	0.0%									
40.0%	28.4%	11.1%	4.0%									
100.0%	100.0%	100.0%	100.0%									

Benefits of a Compliance Period

- Compliance periods and banking allow LSEs to adjust procurement strategies based on factors like energy availability, contract availability, and project development timelines, and provides flexibility for LSEs to help manage price fluctuations and ensure a more stable renewable energy market.
- Multi year compliance periods provide additional flexibility for retail sellers to meet renewable
 procurement targets. This approach allows LSEs to average renewable and large hydro purchases over a
 longer period rather than being strictly limited to a single year.

		Percent of Total Retail	tal Retail Sales (kWh)					
	DCOE	Ava Community Energy						
Specific Purchases	PG&E	Bright Choice	Renewable 100					
Renewable	23.0%	61.8%	100%					
 Biomass & Biogas 	3.0%	10.8%	0%					
 Geothermal 	0.0%	0.9%	0%					
 Eligible Hydroelectric 	1.0%	1.9%	0%					
 Solar Electric 	14.0%	17.4%	76.8%					
Wind	4.0%	30.8%	23.2%					
Large Hydroelectric	12.0%	33.7%	0.0%					
Nuclear	63.0%	0.5%	0.0%					
Emerging Technologies	0.0%	0.0%	0.0%					
Other	0.0%	0.0%	0.0%					
Natural Gas	2.0%	0.0%	0.0%					
Coal and Petroleum	0.0%	0.0%	0.0%					
Unspecified Power**	0.0%	4.0%	0.0%					
 Unspecified Power – ACS 	0.0%	0.2%	0.0%					
 Unspecified Power – Spot 	0.0%	4.0%	0.0%					
Market								
Total	100%	100%	100%					

- The final 2024 Power Content Label is shown to the right, reflecting total renewables and large hydro of 96% for Ava
- PG&E procured 23% renewables utilizing banked RECs to meet its RPS compliance obligation for 2024
- PG&E's 2025 power content will change significantly, likely with lower nuclear and higher natural gas
- Hourly emissions accounting, required in 2028, will impact power content and procurement needs and costs

Considerations

- It is anticipated that in 2028 a new 24x7 emissions accounting methodology will be implemented. The details of this methodology are in development and uncertain at this time. There is potential that this implementation timeframe could be delayed.
- Alignment with RPS
 - Historically, procurement in the last year of an RPS compliance period is more expensive due to constrained supply relative to demand;
 - Staggering a compliance period with RPS could give us additional flexibility (e.g. 2024-2027)
 - Staggering could also pose additional challenges depending on timing (e.g. should Ava's first year be aligned with the last year in an RPS period?)
- Large hydro and nuclear are primarily sourced through allocations from PG&E and large hydro is subject to change
- With a 100% clean target goal starting in 2030, there is not a clear mechanism to balance procurement beyond 2030

Compliance Period Procurement Methodology Scenarios

Ava proposes implementing a procurement period for 2024-2026 or 2024-2027 to utilize over procurement from 2024 in future years. This would result in our Power Content Label being above and below procurement targets in certain years allowing staff to balance procurement levels based on new projects coming online, firm vs. Contingent contracts, and optimal supply/pricing.

Scenario 1: 2024-2026

Bright Choice	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Board Adjusted Target Procurement	NA	NA	68%	76%	81%	81%	81%	85%	90%	95%	100%
Actuals (Renewables + Large Hydro)	55%	58%	71%	89%	96%	TBD	TBD	TBD	TBD	TBD	TBD
Over/(Under) procurement %	1%	3%	3%	13%	15%	(7.5%)	(7.5%)	TBD	TBD	TBD	TBD
Compliance Period Adjusted Target						73.5%	73.5%	<i>)</i>			

- 2024-2026 compliance period 1
- 2027-2029 compliance period 2
- 2030-2032 compliance period 3
- Staggered with RPS periods
- 2028 new emissions methodology implementation in the middle of a compliance period
- Scenario 1 is estimated to have higher immediate savings in 2025 and 2026

Compliance Period Procurement Methodology Scenarios (Cont.)

Scenario 2: 2024-2027

Bright Choice	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Board Adjusted Target Procurement	NA	NA	68%	76%	81%	81%	81%	85%	90%	95%	100%
Actuals (Renewables + Large Hydro)	55%	58%	71%	89%	96%	TBD	TBD	TBD	TBD	TBD	TBD
Over/(Under) procurement %	1%	3%	3%	13%	15%	(5%)	(5%)	(5%)	TBD	TBD	TBD
Compliance Period Adjusted Target						76%	76%	80%			

- 2024-2027 compliance period 1
- 2028-2030 compliance period 2
- 2031-2033 compliance period 3
- Aligns with RPS periods
- 2028 new emissions methodology implementation at start of a new compliance period
- Scenario 2 is estimated to have potentially lower near-term savings in 2025 and 2026

Compliance Period Procurement Methodology Scenarios (Cont.)

Scenario 3: 2025-2027

Bright Choice	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Board Adjusted Target Procurement	NA	NA	68%	76%	81%	81%	81%	85%	90%	95%	100%
Actuals (Renewables + Large Hydro)	55%	58%	71%	89%	96%	TBD	TBD	TBD	TBD	TBD	TBD

- 2025-2027 compliance period 1
- 2028-2030 compliance period 2
- 2031-2033 compliance period 3
- Aligns with RPS periods
- 2028 new emissions methodology implementation at start of a new compliance period
- Scenario 3 has no immediate savings in reduced procurement costs but and aligns with RPS

Actual procurement levels will be reported in Ava's annual Power Content Label and multi-period averages will be reported in the annual budget setting process.

Questions and Feedback

Ava is seeking feedback from the FAP sub-committee on a recommendation for a compliance period methodology scenario and intends to bring this item to the July Board meeting seeking formal approval.

