

APRIL 5, 2023

Bright Choice Emissions Overview



Overview

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What is the Power Content Label (PCL)?

PCL

- Published annually, based on prior calendar year generation from owned or contracted-for resources
- Detailed breakdown on sources of energy used to provide electricity
- Resembles a nutrition label for electricity
- The PCL submission requires a formal 3rd party audit and is reviewed and approved by the CEC

2021 POWER CONTENT LABEL									
East Bay Community Energy									
ebce.org/documents-and-resources									
Greenhouse Gas Emissions Intensity (lbs CO ₂ e/MWh)				Energy Resources		Renewable 100	Brilliant 100	Bright Choice	2021 CA Power Mix
Renewable 100	Brilliant 100	Bright Choice	2021 CA Utility Average	Eligible Renewable ¹		100.0%	35.8%	42.3%	33.6%
0	0	564	456	Biomass & Biowaste		0.0%	0.0%	0.5%	2.3%
				Geothermal		0.0%	0.0%	0.0%	4.8%
				Eligible Hydroelectric		0.0%	0.0%	0.2%	1.0%
				Solar		50.0%	17.9%	19.0%	14.2%
				Wind		50.0%	17.9%	22.6%	11.4%
				Coal		0.0%	0.0%	0.0%	3.0%
				Large Hydroelectric		0.0%	0.0%	64.2%	9.2%
				Natural Gas		0.0%	0.0%	0.0%	37.9%
				Nuclear		0.0%	0.0%	1.7%	9.3%
				Other		0.0%	0.0%	0.1%	0.2%
				Unspecified Power ²		0.0%	0.0%	40.0%	6.8%
TOTAL						100.0%	100.0%	100.0%	100.0%
Percentage of Retail Sales Covered by Retired Unbundled RECs ³ :						0%	0%	0%	
¹ The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology. ² Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source. ³ 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:						East Bay Community Energy 1-833-699-EBCE (3223)			
For general information about the Power Content Label, visit:						http://www.energy.ca.gov/pcl/			
For additional questions, please contact the California Energy Commission at:						Toll-free in California: 844-454-2906 Outside California: 916-653-0237			

EBCE's Customer Products

Renewable 100

100% renewable energy from California solar & wind power at a slightly higher price than PG&E



100% eligible renewable

Bright Choice

Our basic plan, which costs less than PG&E



42.3% eligible renewable power

KEY

- Wind
- Solar
- Hydro
- Biomass & Biowaste, Geothermal, Eligible Hydroelectric
- Other or Unspecified
- Nuclear

Renewable Energy Credits and Portfolio Content Category Classifications

Renewable Energy Credits (RECs):

- Represent clean energy attributes of renewable electricity
- Each REC is equivalent to one MWh of renewable electricity generated
- Limitations to the amount that each group can count towards RPS requirements
- Classified into three distinct categories Portfolio Content Categories (PCC)

PCC 1	Energy and REC are from same source and delivered into a California Balancing Authority (CBA) without any substitution
PCC 2	Substitute Energy not from the same source as REC
PCC 3	Electricity Products Not Qualified as PCC 1 or PCC 2, Including Unbundled RECs

Bright Choice History

Bright Choice plan was created to provide electricity to customers at a lower price than PG&E as a comparable product.

2018 – Bright Choice was a Board approved product, with an approved power content set at 85% carbon free

- October 2018 – Board approved use of The Climate Registry (TCR) carbon accounting methodology and 2018 calendar year emissions factor target of 142 lb-CO₂e/MWh (Actual 2018 emissions was 101 lb-CCO₂e/MWh)
- TCR is a national emissions accounting methodology that was widely used by load serving entities, including CA IOUs and CCAs, and cities

2019 PG&E Carbon Free Allocation

- PG&E initiated a formal large hydro and nuclear allocation process determined by load share, with deliveries starting in 2020. The acceptance of this allocation had zero incremental cost to CCAs due to PCIA
- EBCE initiated discussions in the November 2019 ExComm meeting followed by extensive discussions on risks, benefits, and costs with the Board and CAC at the December 2019 and January 2020 Board meetings
 - Fundamental question for accepting nuclear or not came down to a trade-off between having nuclear and lower greenhouse gas emissions, or not having nuclear and **accepting higher greenhouse gas emissions**
 - EBCE board elected to accept the large hydro allocation



2020 Amendment to Bright Choice Power Content Guidelines

- With the introduction of the carbon free allocation, EBCE's large hydro portfolio content was expected to be generally in line with PG&E, and therefore Renewable Energy was a much more appropriate focus
- Renewables target was amended to reflect a clean energy procurement floor based on PG&E's prior year renewable energy power content forecast + 5% buffer for uncertainty

$$2020 \text{ Bright Choice Renewable \%} = [2019 \text{ PG\&E Renewable Forecast}] + 5\% = 39.5\%$$

- Challenges existed under this approach due to lack of visibility into PG&E's annual renewable target and a changing RPS banking strategy. Furthermore, the reporting lag means that actual values are not fully validated until the fall of the year after the power is procured

Assembly Bill (AB) 1110

- Regulations modifying power content reporting methodology and emissions accounting methodology were approved in 2016 for initial implementation in 2020.
- AB 1110 fundamentally required replacing the previously accepted TCR emissions methodology, which took a global emissions perspective, with a California-centric emissions methodology
- Requires retail sellers to:
 - Include emissions from PCC 2 RECs resulting in a material increase in reported emissions
 - Resources, regardless of source (solar, wind, hydro) are given an equivalent emissions factor based on imported energy into CAISO, typically unspecified system power.

Where are we now?

- In December 2020, the Board adopted a clean energy goal for all electricity within EBCE’s portfolio to have zero net emissions by 2030
- In April 2022, a path to reach that zero emissions goal in 2030 was approved, which included annual targets for renewable and large hydro (as a percentage of sales)
- Targets were increased by an additional 5% in June 2022

Note: 2019 renewables procurement increased significantly to address scarcity in large hydro generation due to drought conditions

Year	Bright Choice			CA-RPS %
	Renewable %	Carbon Free %	Emission Factor	Renewable %
2018	41%	87%	360	29%
2019	60%	85%	437	31%
2020	40%	54%	580	33%
2021	41%	55%	564	36%
2022	50%	68%	549	39%
2023	54%	71%	555	41%
2024	58%	75%	466	44%
2025	61%	79%	390	47%
2026	65%	84%	317	49%
2027	69%	88%	243	52%
2028	73%	92%	164	55%
2029	76%	98%	66	57%
2030	80%	100%	-	60%

CCA Comparison

	RPS	Hydro	% Nuclear	Non-nuke Carbon Free	Rate	2021 Cost Differential w/ PG&E	Lbs CO2e/MWh
Peninsula	49.20%	50.80%	0.00%	100.00%	\$0.1439	1.29%	5
Silicon Valley	44.10%	35.90%	20.00%	80.00%	\$0.1459	2.65%	18
MCE	60.50%	36.80%	0.90%	97.30%	\$0.1490	4.68%	75
CleanPowerSF	55.40%	37.60%	0.10%	93.00%	\$0.1196	-18.72%	82
PG&E	47.70%	4.00%	39.30%	51.70%	\$0.1420	0.00%	98
Sonoma	49.70%	40.60%	0.50%	90.30%	\$0.1353	-4.98%	130
San Jose	36.00%	31.30%	31.30%	67.30%	\$0.1487	4.48%	162
3CE	38.40%	11.80%	0.00%	50.20%	\$0.0910	-56.07%	494
Pioneer	30.80%	0.40%	20.40%	31.20%	\$0.1287	-10.33%	542
EBCE	42.30%	15.90%	1.70%	58.20%	\$0.1373	-3.41%	564
King City	40.00%	0.00%	0.00%	40.00%	\$0.1524	6.81%	567
Redwood Coast	33.10%	10.50%	0.00%	43.60%	\$0.1509	5.89%	615
Valley	12.60%	10.90%	0.00%	23.50%	\$0.1521	6.65%	722

2022 Snapshot

Note that these are draft power content forecast positions for 2022 and subject to change following formal reconciliation and audit. Formal PCL and emissions data to be released on October 1st.

	PG&E*	EBCE
Eligible Renewable	40.00%	47.77%
Large Hydro	7.00%	22.75%
Nuclear	49.00%	0.00%
Unspecified	0.00%	29.48%
Total Carbon Free	96.00%	70.52%
Carbon Free non-Nuke	47.00%	70.52%

Questions?

Thank You

Izzy Carson

Power Resources Manager