



CAC Item C5
Staff Report Item 11

TO: East Bay Community Energy Board of Directors
FROM: Nick Chaset, Chief Executive Officer
SUBJECT: Power Content Procurement Floor (Action Item)
DATE: April 22, 2020

Recommendation

Amend the Bright Choice product power content guidelines to instill the following clean energy procurement floor starting in 2020:

1. PG&E Bundled RPS Energy Sale Solicitation filing forecast $(\text{Year} - 1) + 5\%$
 - a. This procurement floor is based on PG&E's prior year renewable energy power content forecast, plus an additional 5% renewables to ensure adequate buffer for uncertainty. (E.g. For 2020, the floor would be the PG&E 2019 Bundled RPS Energy Sale Solicitation filing forecast + 5%)
 - b. This procurement floor requires only renewables purchases and will not include any incremental procurement of non-renewable carbon-free energy.
 - i. Any non-renewable carbon-free energy will come from the allocations of EBCE's pro-rata share of PG&E's carbon-free portfolio, should the Board vote to accept either or both of the allocation offers (action on allocations to be taken in separate Board Item).
 - c. In the context of budget, staff will seek to procure to surpass the procurement floor and the EBCE Board will review these guidelines annually. Any procurement budget surplus from a given year will be brought to the Board for direction.
 - d. This floor applies only to Bright Choice. No changes will be made to Brilliant 100 or Renewable 100 power content guidelines.

Background and Discussion

To date, EBCE has compared the portfolio carbon-free content to PG&E based on renewables and large hydro/ACS - the two shared categories of carbon-free energy. With the introduction of the Carbon-Free Allocation Mechanism, EBCE's large hydro portfolio content is expected to be in line with PG&E's. Therefore, renewables have now become the more pertinent focus within PG&E's portfolio. As such, staff proposes establishing a comparison methodology that

looks at renewables content as the benchmark to compete against PG&E on a forward-looking basis.

Additionally, staff proposes this methodology also as a prudent financial management approach in light of rising customer costs and other risks associated with the PCIA and now the COVID-19 pandemic. As discussed at the February 19, 2020 Board Meeting, given a stressed financial situation relative to previous years, there are various cost mitigating strategies for the Board to consider. One strategy is adjusting the power content mix while maintaining the value propositions set forth in the JPA to deliver both cleaner and cheaper electricity than PG&E for comparable products.

In sum, the procurement floor is a means to more flexibly benchmark and compete against PG&E on a forward-looking basis, while also offering crucial procurement cost savings to mitigate PCIA and other customer burdens. EBCE will always strive to further increase the clean content of the portfolio in line with Board direction and within financial reason.

Comparison to PG&E

To date EBCE has procured power products to ensure a targeted minimum of 85% carbon-free energy for Bright Choice, a value well above PG&E's 52%¹ in 2018. As load has departed from PG&E and with the Carbon-Free Allocation Mechanism, PG&E's power mix for 2020 onward is difficult to predict with 2020 forecasts largely redacted in public filings. PG&E provides multiple sources for their expected and actual power content, but the actual values are not fully validated until their Power Content Label is produced - which occurs in the Fall of the year after the power is procured. As a result, it can be challenging to compare EBCE Bright Choice to PG&E Power Content due to this reporting lag.

However, despite these changes and uncertainties, the underlying basis of comparison between EBCE and PG&E should be the renewables percentage. The additional 5% above the PG&E baseline serves as a buffer to conceivably deliver a higher renewables percentage than PG&E on the Power Content Label; it is a good faith effort mechanism given the latest available and complete information regarding PG&E's power mix.

Regarding additional carbon-free energy, the allocation mechanism for PG&E's carbon-free resources should result in, at a minimum, equivalent percentages of large hydro and nuclear (if accepted) for PG&E and all accepting CCAs in a standard year, seeing as the allocations are made on a pro rata basis. A CCA could have a higher percentage of large hydro if they purchase additional large hydro in the market, but the underlying allocated percentage should equal PG&E's. It should be noted that this carbon-free percentage comparison is true in a full-year delivery, so it should be expected that the 2020 allocations will result in PG&E and CCAs reporting different percentages for large hydro and nuclear resources given that the timing of the allocation process will result in an estimated half-year of allocation deliveries.

Procurement Floor

The baseline for the 2020 procurement floor is established using PG&E's 2019 Bundled RPS Energy Sale Solicitation filing ([Advice Letter 5554-E](#)²) in which PG&E reports their Renewable Net Short Calculation table (Table C in the Advice Letter). The table reports Actuals for all years prior to the reporting year, and Forecasts for the reporting year and the following 15 years. The latest filing is from July 2019.

¹ This value does not include PG&E's nuclear generation percentage to apply a consistent comparison of like-for-like carbon-free sources.

² Link to PG&E Advice Letter: https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5554-E.pdf

With much of the near-term projections redacted starting with 2020, the best and latest information available to project PG&E's renewables content for 2020 is the Renewable Net Short Forecast from the year of the report. In this July 2019 filing, PG&E's forecasted 2019 Renewable Net Short Calculation was 34.5%. As such, staff uses this forecast as a proxy for the 2020 PG&E benchmark renewables value on top of which to apply the 5% buffer to arrive at the 2020 Bright Choice renewables target of 39.5%.

Bright Choice Power Content Impacts

With the proposed procurement floor, below are two possible scenarios for EBCE's Bright Choice power content with 39.5% renewables plus PG&E allocations:

- Renewables plus hydro allocation: 50.3%³
- Renewables plus hydro and nuclear allocation: 73.6%⁴

Renewables: While it is very likely that the proposed policy will result in a greater renewables percentage for Bright Choice than the current policy, at a minimum, EBCE's renewables content will be both 5% greater than the RPS compliance requirement and 5% greater than the PG&E forecasted renewables content. While the 5% buffer is included as a good faith effort mechanism to keep EBCE ahead of PG&E, it is possible than in a given year EBCE's renewables percentage may be less than PG&E's, as will be revealed the following Fall when the Power Content Labels are published.

Carbon-Free (Large Hydro and Nuclear): In a full delivery year, the large hydro percentage should match PG&E's and the nuclear percentage will either match PG&E's or be 0.

Portfolio: While EBCE's Bright Choice carbon-free content will decrease from 2019 to 2020 under the proposed new Bright Choice power content guidelines, so long as EBCE's renewables content is greater than PG&E's and EBCE accepts either or both of the allocations, it is fair to expect that in a standard year EBCE's like-for-like carbon-free content comparison should remain cleaner than PG&E.

Should the Board not approve this policy, there will be no change in the Bright Choice portfolio carbon-free total. Staff has included two scenarios to achieve the existing 85% target utilizing the PG&E allocations plus incremental large hydro purchases. These scenarios are included in this Item's presentation as points of reference for the Board to assess and compare the impacts of all options prior to making a decision on this Item.

Financial Impacts

Under the recommended policy - procuring PG&E forecasted renewables + 5%, with incremental carbon-free coming only from PG&E allocations and therefore at no procurement cost - this procurement floor can save EBCE approximately \$11,300,000 in Bright Choice procurement cost savings. This savings projection is the same regardless of the allocation decision as it reflects only purchasing renewables. As such, the approval of this policy has no financial impacts on the allocation decision and vice versa. The rejection of this policy, however, would result in the associated savings of the approved allocation scenario (Item 12).

Attachments

- A. Presentation

^{3, 4} Uses full-year allocation volumes spread to Bright Choice proportionately (i.e. relative to Bright Choice share of total EBCE portfolio).



Power Content Procurement Floor

PRESENTED BY: NICK CHASET

DATE: APRIL 22, 2020



Power Content Comparison

Overview

To date, EBCE has compared the portfolio carbon-free content to PG&E based on renewables and large hydro/ACS – the two shared categories of carbon-free energy. With the introduction of the Carbon-Free Allocation Mechanism, EBCE's large hydro portfolio content is expected to be in line with PG&E's. Therefore, renewables have now become the more pertinent focus within PG&E's portfolio. As such, **staff proposes establishing a comparison methodology that looks at renewables content as the benchmark to compete against PG&E on a forward-looking basis.**

Additionally, staff proposes this methodology also as a prudent financial management approach in light of rising customer costs and other risks associated with the PCIA and now the COVID-19 pandemic. Reducing procurement costs, while continuing to offer a cleaner energy mix than PG&E, is one of the primary strategies available to EBCE to mitigate the effects of both the PCIA and COVID-19.

Policy Recommendation

Current Policy:

EBCE currently procures renewables for Bright Choice to a minimum of RPS compliance + 5%, as directed by the Board. For 2020, this translates to 38% renewables.

EBCE also procures to a target Bright Choice portfolio mix that is 85% carbon-free (renewables and large hydro/ACS). This current target provides EBCE with a substantial buffer to be cleaner than PG&E when comparing like-for-like carbon-free sources (i.e. not counting PG&E nuclear in the PG&E total carbon-free %).

Proposed Policy:

Amend the Bright Choice product power content guidelines to instill the following clean energy procurement floor starting in 2020:

1. **PG&E Bundled RPS Energy Sale Solicitation filing forecast** $(\text{Year} - 1) + 5\%$
 - a. This procurement floor is based on PG&E's prior year renewable energy power content forecast, plus an additional 5% renewables to ensure adequate buffer for uncertainty. For 2020, the floor would be the PG&E 2019 Bundled RPS Energy Sale Solicitation filing forecast + 5%.
 - b. This procurement floor requires only renewables purchases and will not include any incremental procurement of non-renewable carbon-free energy.
 - i. Any non-renewable carbon-free energy will come from the allocations of EBCE's pro-rata share of PG&E's carbon-free portfolio, should the Board vote to accept either or both of the allocation offers (action on allocations to be taken in separate Board Item).
 - c. In the context of budget, staff will seek to procure to surpass the procurement floor and the EBCE Board will review these guidelines annually. Any procurement budget surplus from a given year will be brought to the Board for direction.
 - d. This floor applies only to Bright Choice. No changes will be made to Brilliant 100 or Renewable 100 power content guidelines.

Impacts and Implications

Financial Impacts:

- ~\$11.3MM of avoided Bright Choice procurement costs, relative to procurement costs for current Bright Choice power content guidelines.
 - Annual procurement cost savings come from no longer procuring incremental large hydro and instead utilizing the PG&E allocation, which is effectively paid for through the PCIA.

RPS Compliance:

- This is consistent with the current EBCE procurement guidelines (i.e. RPS + 5%) and therefore remains in compliance with RPS requirements.

Power Content:

- Renewables:
 - At a minimum, EBCE's renewables content will be both 5% greater than the RPS compliance requirement and 5% greater than PG&E forecast renewables content.
 - It is very likely, that this policy will result in a greater renewables percentage for Bright Choice than the current policy.
 - While the 5% buffer is included as a good faith effort mechanism to keep EBCE ahead of PG&E, it is possible that in a given year EBCE's renewables percentage may be less than PG&E's if PG&E's actuals renewables are 5% greater than their forecast.
- Carbon-Free (Large Hydro and Nuclear):
 - The large hydro percentage should match PG&E's and the nuclear percentage will either match PG&E's or be 0.
- Portfolio:
 - The Bright Choice carbon-free percentage will decrease relative to previous years, but EBCE's like-for-like portfolio percentage should still be cleaner than PG&E. (Logic: more renewables + same carbon-free = cleaner than PG&E)
 - In other words, from the day EBCE receives allocation deliveries, we will be cleaner than PG&E.

Illustrative Bright Choice Power Content Comparison Under New Power Content Guidelines

<i>Illustrative Full Year Quantities</i>	PG&E 2020 Projection*	EBCE Bright Choice New Guidelines 2020 Projection	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – w/ nuclear	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – no nuclear
Renewables	34.5%*	39.5%	38%	38%
Large Hydro	10.8%** If all allocations are taken	10.8%*** If allocation is accepted	23.7%*** Allocation plus incremental procurement	47%*** Allocation plus incremental procurement
Nuclear	23.3%** If all allocations are taken	23.3%*** If allocation is accepted	23.3%*** If allocation is accepted	-
Carbon-Free % with nuclear	68.6%	73.6%	85%	-
Carbon-Free % without nuclear	45.3%	50.3%	-	85%
Expected Annual Bright Choice Procurement Savings		\$11,300,000	\$8,600,000	\$2,700,000

* PG&E 2019 Renewable Net Short Forecast (from Advice Letter 5554-E Filing) used for 2020 benchmark, on top of which to apply the 5% buffer for Bright Choice renewables.

** Large Hydro and Nuclear % based on 5-year average (2013-2017, pre-CCA major load departure) to reflect expected generation levels after allocations. See Appendix A.

*** Uses full-year allocation volumes spread to Bright Choice proportionately (i.e. relative to Bright Choice share of total EBCE portfolio) to demonstrate the portfolio level equivalence of the pro rata share of PG&E carbon-free resources in a standard year. The remainder of the allocation volume would go to Brilliant 100 under this representation.

Recommended Scenario: New Procurement Floor

<i>Illustrative Full Year Quantities</i>	PG&E 2020 Projection*	EBCE Bright Choice New Guidelines 2020 Projection	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – w/ nuclear	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – no nuclear
Renewables	34.5%*	39.5%	38%	38%
Large Hydro	10.8%** If all allocations are taken	10.8%*** If allocation is accepted	23.7%*** Allocation plus incremental procurement	47%*** Allocation plus incremental procurement
Nuclear	23.3%** If all allocations are taken	23.3%*** If allocation is accepted	23.3%*** If allocation is accepted	-
Carbon-Free % with nuclear	68.6%	73.6%	85%	-
Carbon-Free % without nuclear	45.3%	50.3%	-	85%
Expected Annual Bright Choice Procurement Savings		\$11,300,000	\$8,600,000	\$2,700,000

This scenario employs the new procurement floor and illustrates the carbon-free content projections depending on whether or not EBCE accepts the nuclear allocation in addition to the hydro allocation or not. The projected savings result from EBCE purchasing only renewables, with carbon-free energy coming only from the PG&E allocation. **The savings are the same regardless of the allocation decision, only the carbon-free percentage differs.**

Scenario Description: Status Quo C-Free w/ Nuclear

Illustrative Full Year Quantities	PG&E 2020 Projection*	EBCE Bright Choice New Guidelines 2020 Projection	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – w/ nuclear	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – no nuclear
Renewables	34.5%*	39.5%	38%	38%
Large Hydro	10.8%** If all allocations are taken	10.8%*** If allocation is accepted	23.7%*** Allocation plus incremental procurement	47%*** Allocation plus incremental procurement
Nuclear	23.3%** If all allocations are taken	23.3%*** If allocation is accepted	23.3%*** If allocation is accepted	-
Carbon-Free % with nuclear	68.6%	73.6%	85%	-
Carbon-Free % without nuclear	45.3%	50.3%	-	85%
Expected Annual Bright Choice Procurement Savings		\$11,300,000	\$8,600,000	\$2,700,000

This scenario maintains both the current renewables procurement policy of RPS + 5%, and the carbon-free Bright Choice portfolio target of 85%. Of the 47% carbon-free energy required to achieve the 85% target, **this scenario includes accepting both the large hydro and the nuclear allocations from PG&E, with the remaining 12.9% large hydro being purchased in the market.** 10.8% hydro allocation + 12.9% hydro purchase = 23.7% large hydro

Scenario Description: Status Quo C-Free, No Nuclear

Illustrative Full Year Quantities	PG&E 2020 Projection*	EBCE Bright Choice New Guidelines 2020 Projection	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – w/ nuclear	EBCE Bright Choice Status Quo C-Free Content 2020 Projection – no nuclear
Renewables	34.5%*	39.5%	38%	38%
Large Hydro	10.8%** If all allocations are taken	10.8%*** If allocation is accepted	23.7%*** Allocation plus incremental procurement	47%*** Allocation plus incremental procurement
Nuclear	23.3%** If all allocations are taken	23.3%*** If allocation is accepted	23.3%*** If allocation is accepted	-
Carbon-Free % with nuclear	68.6%	73.6%	85%	-
Carbon-Free % without nuclear	45.3%	50.3%	-	85%
Expected Annual Bright Choice Procurement Savings		\$11,300,000	\$8,600,000	\$2,700,000

This scenario maintains both the current renewables procurement policy of RPS + 5%, and the carbon-free Bright Choice portfolio target of 85%. Of the 47% carbon-free energy required to achieve the 85% target, **this scenario includes accepting only the large hydro allocation from PG&E (10.8%), with the remaining 36.2% large hydro being purchased in the market.** The lower savings number relative to the previous scenario comes from having to purchase additional large hydro equivalent to the nuclear allocation volume foregone.

Source Material

PG&E Renewables

Every year PG&E files a Bundled RPS Energy Sale Solicitation filing in which they report their Renewable Net Short Calculation table. The table reports Actuals for all years prior to the reporting year, and Forecasts for all years from the reporting year out to 2036. The latest filing is from July 2019.

With much of the near-term projections redacted starting in 2020, the best and latest information available to project PG&E's renewables content is the Renewable Net Short Forecast from the year of the report.*

- *Advice Letter 5554-E “[2019 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreements Between Pacific Gas and Electric Company and Multiple Buyers](#)”; Renewable Net Short Table: Table C.
- 2019 Renewable Net Short Calculation: 34.5%

PG&E Carbon-Free

To derive projected large hydro and nuclear percentages for PG&E's 2020 Power Content Label, staff averaged the 2013-2017 PG&E volumes for the respective resources. The 2013-2017 period is the best proxy for 2020 given that the carbon-free allocations are on a pro rata basis, meaning PG&E's carbon-free resource percentages should respectively revert to similar levels of pre-CCA major load departure.

See Appendix A slide for calculations.

APPENDIX

A.



PG&E Power Mix, 2013-2018

PG&E Power Content	2013 Power Mix (Actual)	2014 Power Mix (Actual)	2015 Power Mix (Actual)	2016 Power Mix (Actual)	2017 Power Mix (Actual)	2018 Power Mix (Actual)	2013-17 Average
Eligible Renewable	22%	27%	30%	33%	33%	39%	29.0%
-- Biomass & waste	4%	5%	4%	4%	4%	4%	4.3%
-- Geothermal	5%	5%	5%	5%	5%	4%	5.0%
-- Small hydroelectric	2%	1%	1%	3%	3%	3%	2.0%
-- Solar	5%	9%	11%	13%	13%	18%	10.2%
-- Wind	6%	7%	8%	8%	8%	10%	7.5%
Coal	0%	0%	0%	0%	0%	0%	0%
Large Hydroelectric	10%	8%	6%	12%	18%	13%	10.8%
Natural Gas	28%	24%	25%	17%	20%	15%	22.8%
Nuclear	22%	21%	23%	24%	27%	34%	23.3%
Other	0%	0%	0%	0%	0%	0%	0%
Unspecified	18%	20%	17%	14%	2%	0%	14.2%
CO2-free (w Nuclear)	53%	56%	59%	69%	78%	86%	63.1%
CO2-free (w/o Nuclear)	32%	35%	36%	45%	51%	52%	39.8%