Staff Report Item 12

TO: East Bay Community Energy Board of Directors

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: **PG&E Carbon-Free Allocations Decision (Action Item)**

DATE: April 22, 2020

Recommendation

Staff is not making a specific recommendation to accept or not accept nuclear. Instead, staff has developed two distinct options to lay out the costs and benefits of accepting or not accepting the nuclear allocation. The fundamental question for accepting nuclear or not comes down to a trade-off between having nuclear and lower greenhouse gas emissions, or not having nuclear and accepting higher greenhouse gas emissions.

The current staff position of neutrality on whether to accept the nuclear allocation is premised on the presumption that the EBCE Board of Directors has approved in a previous Board item the modification of EBCE's Bright Choice Power Content Guidelines, and in so doing, has removed any financial benefit to EBCE of accepting the nucleal allocation. If the Bright Choice Power Content Guidelines are not changed, the EBCE staff recommendation shifts to a position of supporting the nuclear allocation to allow EBCE to realize energy procurement cost savings.

Background and Discussion

As the details pertaining to the PG&E Carbon-Free Allocation Mechanism have developed over the past few months, staff has brought the topic forward for discussion at every public meeting where new information or analysis had developed.[1]

Staff first introduced the concept at the November 2019 Executive Committee Meeting. The subject was discussed a second time at the December Board Meeting after the December 2, 2019 PG&E Advice Letter came out highlighting the details of the allocation mechanism. At the January Board Meeting, staff presented a thorough report responding to questions posed by the CAC and members of the Board. With no influencing regulatory decisions made after the January EBCE meetings, no updates were available to bring forward to the Board during February or March.

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[1] These meeting references are also outlined (and linked to their respective Agenda Items and Meeting Minutes) in the attached presentation.

In light of a previous item – Item 11, the Power Content Procurement Floor policy proposal and recommendation – this decision is no longer driven by cost-savings, but rather is fundamentally is a decision between a portfolio with a higher carbon-free content or a portfolio with no nuclear.

PG&E Carbon-Free Energy Allocation Mechanism

The key elements of the Allocation Mechanism are:

- Limited in time to 2019-20 (currently)
- Has both a backwards-looking piece (**Period A**: Carbon-Free Energy generated from January 1, 2019 – day prior to delivery of allocation) and a forward-looking piece (**Period B**: Carbon-Free Energy generated from first delivery date through December 31, 2020)
- Limited in the resources to which it applies:
    - In-state
    - Large hydroelectric
    - Nuclear
- Only available to retail suppliers whose customers pay PCIA with large hydroelectric and nuclear in their PCIA vintage
- Requires active agreement between retail suppliers to offer and to take generation
- Requires that the CPUC approve a mechanism for the allocation of such generation

This mechanism became effective upon CPUC approval of PG&E's December 2, 2019 Advice Letter, filed to amend PG&E's Bundled Procurement Plan to permit allocations. The Allocation Mechanism will remain in effect until the effective date of a CPUC action on the PCIA Proposal Rulemaking (R.17-06-026) orders an alternative methodology. In practice, that means through 2020, though it is possible that the mechanism could be extended beyond 2020.

Under the Allocation Mechanism, PG&E will allocate to each eligible[2] LSE its pro rata load share of large hydro (hydro pool) and/or nuclear resources (nuclear pool) based on the LSE's election. The LSE has 30 days to accept its allocation of hydro and/or nuclear pool(s), and any unallocated amounts will revert back to PG&E to use or dispose as it sees fit, pursuant to applicable law. PG&E will provide some historical production data and ongoing allocation amounts for LSEs to forecast and keep track of allocation amounts. They will also provide the LSE with an annual attestation confirming actual year-end totals of generation from the Resource Pool(s) and notify the California Energy Commission of the sale of the Product for purposes of PCL reporting.

In exchange for the allocation by PG&E, the receiving LSE accepts the conditions that 1) the manner in which the disposition of the resource pools is reasonable; and 2) the LSE waives its ability to make petitions, arguments, or filings to the CPUC or the California Legislature asserting that PG&E has not offered any allocation, sale, or transfer of Carbon-Free Energy or environmental attributes associated with such Carbon-Free Energy for the year in which the eligible LSE accepts such offer.

[2] An eligible LSE (as defined in the CAISO Tariff) is one that (1) has forecasted load identified in PG&E's Energy Resource Recovery Account (ERRA) Forecast Application (ERRA Forecast Departed Load) for the calendar year in which the Allocation Amount is accepted; and (2) serves customers who pay the PCIA departing load charges for the above market costs of Resources.

EBCE Process for Allocations

EBCE would spread the total allocation volumes across Bright Choice and Brilliant 100, with Bright Choice receiving its pro rata share of the total and the remainder going to Brilliant 100.

Scenarios to Consider

Option A - EBCE accepts both the large hydro and nuclear allocations, amounting to approximately 2,046 GWh in a full year and 1,023 GWh in 2020.

Option B - EBCE accepts only the large hydro allocations, amounting to approximately 646 GWh in a full year, and 323 GWh in 2020.

Bright Choice Power Content Impacts

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. Depending on the Board's decision to the Procurement Floor policy (Item 11), the Bright Choice carbon-free power content will either be 85% (if Item 11 is not approved), or be the sum of the new renewables target (i.e. 39.5% in 2020) plus the pro rata allocation percentages. For an illustrative full year that means:

- **Option A Carbon-Free Content** (hydro and nuclear accepted)
    - If Procurement Floor approved: 73.6%
    - If maintaining status quo: 85%
- **Option B Carbon-Free Content** (only hydro accepted)
    - If Procurement Floor approved: 50.3%
    - If maintaining status quo: 85%

Financial Impacts

Should the Board have approved the Procurement Floor policy (Item 11): Bright Choice savings are not influenced by the allocation decision. There are procurement cost savings for Brilliant 100 as it receives a share of the allocation. While the Brilliant 100 savings are the same regardless of the Item 11 decision, they do scale relative to the allocation decision:

- **Option A Savings** (hydro and nuclear accepted)

Bright Choice, New Procurement Floor:	$11,300,000
+ Brilliant 100 Procurement Savings:	$ 1,600,000
= Total EBCE Savings:	$12,900,000

- **Option B Savings** (only hydro accepted)

Bright Choice, New Procurement Floor:	$11,300,000
+ Brilliant 100 Procurement Savings:	$ 515,000
= Total EBCE Savings:	$11,800,000

Should the Board not have approved the Procurement Floor policy (Item 11): The allocation decision results in significantly different cost savings values. Procuring to the status quo (i.e. renewables to RPS + 5%, and remainder of an 85% carbon-free Bright Choice portfolio with PG&E allocations and incremental large hydro) could save EBCE approximately the following:

- **Option A Savings** (hydro and nuclear accepted)

Bright Choice, full allocation year:	$ 8,600,000
+ Brilliant 100, full allocation year:	$ 1,600,000
= Total EBCE Savings:	$10,200,000

- **Option B Savings** (only hydro accepted)

Bright Choice, full allocation year:	$2,700,000
+ Brilliant 100, full allocation year:	$ 515,000
= Total EBCE Savings:	$3,200,000

- Half of these savings would be expected in 2020 for either scenario.

Attachments

A. PG&E Carbon-Free Allocations Decision Presentation

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PG&E Carbon-Free Allocations Decision

PRESENTED BY: NICK CHASET

DATE: APRIL 22, 2022

PG&E Carbon-Free Allocations Decision

Overview

If the Power Content Procurement Floor has been approved, this decision is strictly a carbon-free power content policy question for the Board. Updating the Bright Choice power content guidelines to enact the procurement floor proposed means EBCE is financially indifferent to the allocation decision. In this case, the question becomes: **a more carbon-free mix or a nuclear-free mix?**

If the Procurement Floor has not been approved, and rather the Board maintains the 85% carbon-free Bright Choice target, this decision is still primarily the same power content policy question posed above, but also considers some expected procurement cost savings presented in the two scenarios as a result of the allocation decision.

As the details pertaining to the PG&E Carbon-Free Allocation Mechanism have developed over the past few months, staff has brought the topic forward for discussion at every public meeting where new information or analysis had developed. References to all Meetings, Staff Reports, and Meeting Minutes in which this issue was discussed are outlined on the following slide for reference.

Previous Board Presentations

November 22, 2019 – Executive Committee Meeting

Purpose: Provide an introduction to the allocation mechanism, including financial impact scenarios, and gather initial Board feedback and questions

Attachments and Minutes: Informational Item 5, Nov. ExCom Meeting Minutes

December 18, 2019 – Board Meeting

Purpose: Provide an update regarding the December 2, 2019 PG&E Advice Letter and the decision-making timeline for the allocation in light of other critical milestones, such as Rate Proceedings.

Attachments and Minutes: Informational Item 16, Dec. Board Meeting Minutes, Dec. CAC Meeting Minutes

January 22, 2020 – Board Meeting

Purpose: Present and review staff responses to CAC questions. A focus of the January 20, 2020 CAC Meeting.

Attachments: Informational Item 14, Jan. Board Meeting Minutes, Jan. CAC Meeting Minutes

February and March

With no influencing regulatory decisions made after the January EBCE meetings, no updates were available to bring forward to the Board during February and March.

PG&E Allocation Process

Details

PG&E is offering to allocate carbon-free resources (large hydro and nuclear) from their portfolio to eligible Load Serving Entities based on their pro rata share of load within PG&E territory.

In PG&E's December 2, 2019 Advice Letter they outlined the mechanism by which to allocate resources over two time periods initially:

- **Period A**: Carbon-Free Energy generated from January 1, 2019 – day prior to delivery of allocation
- **Period B**: Carbon-Free Energy generated from first delivery date through December 31, 2020
  - Staff has assumed an initial delivery date of July 1, 2020 to calculate the projected allocation volumes.
  - Projected Period B Allocation: **1,023 GWh of carbon-free attributes** (323 GWh Hydro + 700 GWh Nuclear)
  - Projected Full-Year Allocation: **2,046 GWh of carbon-free attributes** (646 GWh Hydro + 1,400 GWh Nuclear)
    - Should the allocations persist beyond Period B, nuclear in 2024 would be 700 GWh to reflect the first half of the Diablo Canyon decommissioning. Nuclear in 2025 would be 350 GWh to reflect the second half of the plant decommissioning midway through 2025.

It is unlikely that Period A, as a backward-looking allocation, will be allowed due to remaining uncertainty around Power Content Label accounting. As a result, this decision is focused primarily on Period B, as well as any subsequent allocation offers through the complete decommissioning of Diablo Canyon in 2025. The Board decision on which resources to accept in 2020 will guide and grant approval for staff to accept same-resource PG&E Carbon-Free Allocation offers in the future.

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Status of CCA Action on Nuclear Allocation

CCA	Decision
San Jose Clean Energy	Approval of both hydro and nuclear
Silicon Valley Clean Energy	Approval of both hydro and nuclear
Monterey Bay Community Power	Approval of both hydro and nuclear
Peninsula Clean Energy	Approval of both hydro and nuclear
Clean Power Alliance	Approval of only hydro, modified power content guidelines to focus comparison w/ SCE on renewables
MCE CleanEnergy	Approval of only hydro
Pioneer (Placer County)	Approval of both hydro and nuclear
Valley Clean Energy (Yolo)	Approval of only hydro
CalChoice (Cities of Lancaster, Pico Rivera, Apple Valley, among others)	Approval of both hydro and nuclear

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EBCE Process for Allocations

EBCE Process

1. EBCE accepts an allocation from PG&E – either hydro and nuclear, or just hydro.

2. Bright Choice receives its pro rata share of the total EBCE allocated volumes; the remainder goes to Brilliant 100.

3. Bright Choice cost savings will vary based on either the Procurement Floor decision or the Allocation decision, while Brilliant 100 cost savings will vary based only on the Allocation decision:

   - If the Procurement Floor was approved, Bright Choice savings are not influenced by the allocation decision. As Brilliant 100 still receives some of the total allocations regardless, its savings will reflect the allocation decision.

   - If the Procurement Floor was not approved, both products will have procurement cost savings equal to what EBCE would have otherwise spent purchasing the volume equivalent to the allocation volume in their product portfolio.

Option A – Accept Hydro and Nuclear

Process:

EBCE accepts both the large hydro and nuclear allocations, amounting to ~2,046 GWh in a full year and 1,023 GWh in a half year.

Power Content and Financial Impacts:

EBCE receives 323 GWh of large hydro and 700 GWh of nuclear allocations in 2020.

EBCE receives 646 GWh of large hydro and 1,400 GWh of nuclear in subsequent years, if the allocation mechanism persists beyond Period B.

Option A
(Illustrative Full Year, with 2020 renewables value)

	Brilliant 100 Procurement Savings	Bright Choice Procurement Savings	Bright Choice Hydro Content	Bright Choice Nuclear Content	Bright Choice C-Free Content
If Procurement Floor Approved	$1,600,000	No incremental large hydro purchased. BC savings not influenced by decision.	10.8%	23.3%	**73.6%**
If Maintaining 85% Carbon-Free	$1,600,000	**$8,600,000**	23.7%	23.3%	**85%**

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Option B – Accept Only Hydro Allocation

Process:

EBCE accepts only the large hydro allocations, amounting to ~646 GWh in a full year and 323 GWh in a half year.

Power Content and Financial Impacts:

EBCE receives 323 GWh of large hydro allocations in 2020 .

EBCE receives 646 GWh of large hydro in subsequent years, if the allocation mechanism persists beyond Period B.

Option B (Illustrative Full Year, with 2020 renewables value)				
	Brilliant 100 Procurement Savings	**Bright Choice Procurement Savings**	**Bright Choice Hydro Content**	**Bright Choice C-Free Content**
If Procurement Floor Approved	$515,000	No incremental large hydro purchased. BC savings not influenced by decision.	10.8%	**50.3%**
If Maintaining 85% Carbon-Free	$515,000	**$2,700,000**	47%	**85%**

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Comparing Option A and Option B

(if Power Content Guidelines Adjusted)

Power Content and Financial Impacts:

- Under the adjusted power content guidelines, the acceptance of nuclear and/or hydro does not have a direct financial consequence for EBCE's Bright Choice savings. Brilliant 100 savings scale with the allocation decision.

- As a result, the decision whether to accept or reject nuclear primarily comes down to whether EBCE prioritizes a higher carbon-free power content inclusive of nuclear or a lower carbon-free power content that does not include nuclear. Below is an illustration of the total EBCE savings and the relative expected Bright Choice power content labels for EBCE under Option A or Option B.

Comparison of Option A and Option B
(Illustrative Full Year, with 2020 renewables value)

	Total Procurement Savings	Bright Choice Nuclear Content	Bright Choice Hydro Content	Bright Choice Renewable Content	Bright Choice Power Content
Option A	$12,900,000 Bright Choice: $11,300,000 Brilliant 100: $1,600,000	23.3%	10.8%	**39.5%**	**73.6%**
Option B	$11,800,000 Bright Choice: $11,300,000 Brilliant 100: $515,000	0%	10.8%	**39.5%**	**50.3%**

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Comparing Option A and Option B

(if Power Content Guidelines Not Adjusted)

Power Content and Financial Impacts:

- If EBCE does not adjust its Bright Choice power content guidelines, the acceptance of nuclear and/or hydro does have a direct financial consequence for EBCE. Furthermore, not adjusting power content guidelines weakens EBCE's overall financial position while not improving EBCE's energy mix relative to PG&E.

- As a result accepting nuclear directly reduces EBCE's procurement costs while not impacting EBCE's overall carbon-free content.

Comparison of Option A and Option B
(Illustrative Full Year, with 2020 renewables value)

	Total Procurement Savings	Bright Choice Nuclear Content	Bright Choice Hydro Content	Bright Choice Renewable Content	Bright Choice Power Content
Option A	$10,200,000 Bright Choice: $8,600,000 Brilliant 100: $1,600,000	23.3%	10.8% (allocated) + 12.9% (procured by EBCE)	**38%**	**85%**
Option B	$3,200,000 Bright Choice: $2,700,000 Brilliant 100: $515,000	0%	10.8% (allocated) + 36.2% (procured by EBCE)	**38%**	**85%**

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APPENDIX A.

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Establishing Carbon-Free Allocation % Baseline

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%**

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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 revert to similar levels of pre-CCA major load departure.