Decision 23-06-006 June 8, 2023

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Review, Revise, and Consider Alternatives to the Power Charge Indifference Adjustment.	Rulemaking 17-06-026

DECISION ADDRESSING GREENHOUSE GAS-FREE RESOURCES, LONG-TERM RENEWABLE TRANSACTIONS, ENERGY INDEX CALCULATIONS, AND ENERGY SERVICE PROVIDERS' DATA ACCESS

TABLE OF CONTENTS

Title **Page**

DECISION ADDRESSING GREENHOUSE GAS-FREE RESOURCES, LONG-TERM RENEWABLE TRANSACTIONS, ENERGY INDEX CALCULATIONS, AND ENERGY SERVICE PROVIDERS' DATA ACCESS

Summary

This decision modifies the calculation of the Power Charge Indifference Adjustment by (a) establishing a new market price benchmark and an allocation mechanism to address the "greenhouse gas-free" incremental value of large hydroelectric energy resources above fossil fuel resources, and (b) revising the calculation of the Energy Index market price benchmark to improve accuracy and transparency. This decision declines to modify the calculation of the Renewables Portfolio Standard market price benchmark or modify access to confidential data for energy service providers. This proceeding is closed.

1. Background

The Commission opened Rulemaking (R.) 17-06-026 on June 26, 2017, to review, revise, and consider alternatives to the Power Charge Indifference Adjustment (PCIA). The Commission adopted the PCIA to ensure that when electric customers of an investor-owned utility (utility or IOU) depart from utility service and receive their electricity from a non-utility provider, those customers remain responsible for costs previously incurred on their behalf by the utilities.

In Phase 1 of this proceeding, the Commission considered issues regarding exemptions from the PCIA for customers who participate in the California Alternate Rates for Energy program or are served by Medical Baseline rates, the PCIA methodology, and an annual cap on PCIA rate increases. The Commission resolved these issues in Decision (D.) 18-07-009, D.18-09-013, and D.18-10-019.

The Commission held a prehearing conference on December 19, 2018, to consider procedural matters for Phase 2. On February 1, 2019, the assigned Commissioner issued a Scoping Memo (2019 Scoping Memo) with three categories of issues: benchmarking, pre-payment, and portfolio optimization. The Commission resolved these three categories of issues in D.19-10-001, D.20-03-019, D.20-08-004 and D.21-05-030. In D.19-10-001, the Commission also directed its staff to propose a new method to include long-term fixed-price transactions in calculating the Renewables Portfolio Standard (RPS) Market Price Benchmark for consideration in this proceeding.

On December 16, 2020, the assigned Commissioner issued an Amended Scoping Memo (2020 Scoping Memo) to add the following issues to Phase 2 of this proceeding: whether to modify the annual cap on PCIA rate increases; whether to take action to support efficient adoption of Energy Resource Recovery Account (ERRA) decisions and implementation of PCIA issues within ERRA proceedings; and whether to adopt a methodology for crediting or charging customers who depart from the utility service during an amortization period and who are responsible for an account balance.

The Commission addressed the 2020 Scoping Memo issues in D.21-05-030 and D.22-01-023. In D.21-05-030, the Commission concluded that it should continue to develop the record on whether greenhouse gas (GHG)-free resources are under-valued in the PCIA methodology, and if so, whether to adopt a GHG-free adder or an allocation mechanism.

In D.22-01-023, the Commission determined that additional information would be necessary to consider a proposal to require utilities to provide access to confidential data outside of the ERRA proceeding for the purpose of creating

PCIA rate forecasts, as well as the utilities' proposal to modify the market price benchmark (MPB) for the Energy Index.

On June 24, 2022, the assigned Commissioner issued a Second Amended Scoping Memo (2022 Scoping Memo) with the following Phase 2 issues:

- Whether GHG-free resources are under-valued in the PCIA, and if so, whether to adopt an adder or allocation mechanism;
- Whether to adopt a new method to include long-term fixed-price transactions in calculating the RPS MPB;
- Whether to modify the calculation of the PCIA energy index MPB; and
- Whether to modify or clarify the calculation of the PCIA for Voluntary Allocation or Market Offer (VAMO) transactions.

In D.22-07-008, the Commission resolved the issue of whether to provide confidential data access to Community Choice Aggregators (CCAs) outside of the ERRA proceedings for purposes of forecasting the PCIA, but reserved the issue of whether energy service providers (ESPs) need this data access for a public purpose. The Commission also clarified the calculation of the PCIA for Voluntary Allocations in market price benchmark calculations in D.22-07-008. This decision addresses all remaining Phase 2 issues.

This matter was submitted on March 24, 2023, upon the filing of reply comments on the ruling issued on March 3, 2023.

2. Issues Before the Commission

The issues before the Commission are as follows:

a. Whether to adopt a new method to include long-term fixed-price transactions in calculating the RPS MPB;

b. Whether GHG-Free resources are under-valued in the PCIA, and if so, whether to adopt an adder or allocation mechanism;

c. Whether to modify the calculation of the Energy Index MPB; and

d. Whether to provide confidential data access to ESPs outside of the ERRA proceedings for purposes of forecasting the PCIA.

3. Long-Term Fixed-Price Renewable Transactions

In D.19-10-001, the Commission ordered its Energy Division to monitor the impact of long-term,[1] fixed-price[2] (LTFP) RPS transactions and propose a method to include these contracts in calculating the RPS MPB. The RPS MPB is used as a proxy for the incremental RPS compliance value of renewable energy credits (RECs) in the IOUs' PCIA portfolios. Increases in the RPS MPB decrease the above-market cost of the IOUs' RPS portfolios and thus decrease the PCIA when all else is equal.

On August 4, 2022, Administrative Law Judge (ALJ) Wang issued a ruling to request comments on a staff analysis and proposal for incorporating LTFP transactions into the RPS MPB (LTFP Proposal). Alliance For Retail Energy Markets and Direct Access Customer Coalition (together, AReM/DACC), California Community Choice Association (CalCCA), Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company (together, the Joint IOUs), and the Public Advocates Office at the

[1] In this decision, transactions are referred to as "short-term" if they have terms under ten years in length, and "long-term" if they have terms of ten years or more.

[2] In this decision, "fixed-price" refers to transactions in which the buyer pays a flat price for several products, which may include energy delivered to the generator's California Independent System Operator interconnection point, Renewable Energy Credits, scheduling coordinator rights, and Resource Adequacy capacity.

California Public Utilities Commission (Cal Advocates) filed opening comments on this proposal on August 26, 2022. The Utility Reform Network (TURN) and Shell Energy North America (US), L.P (Shell Energy) filed reply comments on September 9, 2022. Parties also discussed the LTFP Proposal at the Energy Division workshop on November 18, 2022.

The LTFP Proposal explained that the Commission adopted a process for calculating RPS MPBs in D.19-10-001 that only includes short-term, index-plus,[3] Portfolio Content Category (PCC) transactions (STIP transactions). More specifically, the RPS MPB is based on the "plus" portion of the transaction price, which is the incremental value of the associated REC. In the working group prior to D.19-10-001, TURN offered a proposal to incorporate LTFP transactions into the RPS MPB. In D.19-10-001, the Commission required load serving entities (LSEs) to provide data to the Energy Division for all fixed-price transactions executed in the past three years (n-3 through n-1) for delivery in the following three years (n through n+2) and directed the Energy Division to analyze those transactions and to propose a method to incorporate them into the RPS MPB.[4]

The LTFP Proposal noted that RPS MPB calculations since late 2019 have been based on between 40 and 90 unique STIP transactions each year, representing between 2.8 and 11.3 terawatt hours in the delivery year. The LTFP Proposal found that LTFP transactions during the same time period ranged from 9 to 31 transactions each year, representing between 0.2 and 2.0 terawatt hours in the delivery year. Staff found that the number and volume of LTFP transactions

[3] The phrase "index-plus" refers to transactions in which the buyer pays an index price for delivered energy, plus a premium for a Renewable Energy Credit.

[4] LTFP Proposal at A-1 to A-4.

are lower than the number and volume of STIP transactions, but the median and weighted average prices of these LTFP transactions are much higher.[5]

Staff noted that it was challenging to develop a LTFP proposal because the RPS-PCIA data request does not currently require certain information, such as clear markers for mandatory procurement, estimates of Resource Adequacy (RA) value, and dispatch profiles. However, staff proposed the following modified version of the 2019 TURN Proposal based on its analysis, subject to party input on key outstanding questions:

- Decline to add long-term, index-plus (LTIP) transactions or short-term, fixed-price (STFP) transactions to the RPS MPB, consistent with D.19-10-001. The number of STFP transactions was too small to analyze, and there were only sufficient LTIP transactions to analyze and share median and weighted average prices while protecting confidentiality for only one out of four data reporting years. This approach also maintains consistency with the Commission's direction regarding which PCC classifications to include.
- Include LTFP transactions based on the current execution date and delivery year criteria, without expanding the dataset.
- Exclude transactions for mandatory procurement, which do not reflect market dynamics.
- Require LSEs to provide an RA value for LTFP transactions, if those transactions include RA capacity. LSEs will estimate the value for each resource using the most recent published RA MPBs and monthly Net Qualifying Capacity and/or Effective Flexible Capacity values for a given resource, as applicable. Since RA attributes are bundled, LSEs will only use the highest-value RA attribute (system, local, or flexible) for each

[5] LTFP Proposal at A-5 to A-6.

month and will not value the same megawatt (MW) twice for a given month. (For example, if a resource provides 100 MW of system capacity and 100 MW of local capacity in a given month, the LSE will not value the same 100 MW using both the system and local MPBs but will instead use whichever MPB results in a higher value in that month.) After calculating a resource's RA value, the LSE will convert the RA value into a single, average $/megawatt hour (MWh) metric and will report that metric in the data request. Energy Division will subtract each transaction's RA value from its fixed price, prior to calculating the RPS MPB.

- Do not differentiate the MPB by technology type or generation profile. Do not require LSEs to provide generation profiles in the semiannual RPS-PCIA data request.
- Either weight the value of STIP transactions at 35% and the value of LTFP transactions at 65%, or calculate two separate MPBs for STIP and LTFP transactions.

The LTFP Proposal noted that Energy Division staff does not have the capacity to substantially increase its workload for MPB calculations. Staff noted that the proposal would require LSE respondents to perform substantial new calculations and may require Energy Division to hire a third-party consultant to provide quality assurance. If Energy Division performs the new calculations, it will require hiring of a third-party consultant to do most of the work in addition to additional LSE data reporting, such as reporting the monthly RA capacity for each applicable resource and/or the generation profile of each resource.

In the LTFP Proposal, staff asked for party input on key outstanding questions to determine whether to incorporate LTFP transactions at this time:

- Whether adding LTFP transactions will have a sufficient impact on the RPS MPB to be worth the additional administrative work and third-party consultant costs; and

- Whether it is feasible to accurately extract RA value from LTFP transactions by using the previous year's RA MPB as a proxy or by another method.

TURN and Cal Advocates supported the LTFP Proposal, although Cal Advocates included the caveat that more data is needed to confirm that the estimated value of LTFP transactions excludes REC value. California Large Energy Consumers Association (CLECA) commented in post-workshop reply comments that the Commission should also incorporate LTIP transactions into the RPS MPB.

AReM/DACC, CalCCA, and the Joint IOUs each opposed the LTFP Proposal for the following reasons.

First, these parties argued that implementing the LTFP Proposal would decrease the accuracy of the RPS MPB and therefore would not be worth the additional administrative work and third-party consultant costs. The Joint IOUs commented that the current RPS MPB reasonably values the incremental REC value of LTFP transactions because the IOUs generally do not use LTFP transactions for PCC-1 REC sales because, among other things, they need to offer long-term allocations in VAMO. Most of the sales of RPS attributes from the IOUs' PCIA portfolios continue to be STIP transactions. Further, the Joint IOUs argued that the proposal would decrease the accuracy of the RPS MPB because it relies on "guesswork" about the RA and energy values of each LTFP transaction, which could lead to irrational outcomes, such as negative or zero REC values.[6]

CalCCA similarly commented that because the LTFP transactions include RA value, and there is no reasonable way to extract RA value at this time, it is not possible to assess the impact of incorporating LTFP transactions into the RPS

[6] Joint IOUs' opening comments on LTFP Proposal.

MPB. CalCCA also echoed the Joint IOUs' concerns about the potential for unreasonable outcomes, such as negative LTFP REC values in reply comments.[7]

Second, AReM/DACC, CalCCA, the Joint IOUs, and Shell Energy each argued that accurately extracting RA and energy values from LTFP transactions was not feasible at this time.

AReM/DACC argued that extracting RA and energy values from LTFP contracts is not feasible because each fixed price deal – freely negotiated between two counterparties – represents each party's evaluation of all the terms and conditions in the contract as well as each party's own assessment of market conditions and expected future prices for all of the products conveyed in the contract. The two counterparties to a fixed price RPS agreement could very well have different opinions as to the components' respective values.[8]

CalCCA agreed, asserting that unless a LTFP contract specifies separate prices for energy, RA, and RPS attributes, it is difficult if not impossible to accurately assess the value of each component.[9] Pacific Gas and Electric Company (PG&E) similarly commented that, with the California energy market in a volatile state, assumptions provided by other MPBs may not reflect the purchaser's expectation of the products contained therein.[10]

TURN argued against this rationale, asserting that it is not important to determine what portion of the contract price the buyer or seller intended to reflect each of the relevant attributes.[11] TURN and Cal Advocates each supported

[7] CalCCA's reply comments on the LTFP Proposal.

[8] AReM/DACC's opening comments on the LTFP Proposal.

[9] CalCCA's opening comments on the LTFP Proposal.

[10] PG&E's post-workshop reply comments on the LTFP Proposal.

[11] TURN's reply comments on the LTFP Proposal.

the LTFP Proposal's recommendation to use the previous year's RA MPB to extract RA value.[12]

Several parties argued against use of the RA MPB to extract RA value. AReM/DACC argued that, unlike in STIP transactions, RPS value embedded in LTFP contracts reflects a purchaser's expected value over many years, including a risk premium or discount from current prices, and does not accurately reflect current market prices.[13] CalCCA similarly argued that the RA value when an LSE signs an LTFP contract may or may not reflect the RA MPB and may also incorporate changing RA values over time.[14] The Joint IOUs, CalCCA, and AReM/DACC each also asserted that the LTFP Proposal failed to account for how the RA value differs for each RPS technology based on output.[15]

The Joint IOUs noted that the Commission is currently considering RA market reforms in another proceeding. The Joint IOUs recommended that the Commission wait to reconsider incorporating LTFP transactions into the RPS MPB until either (i) the majority of PCC-1 REC transactions of excess RPS from PCIA portfolios are LTFP, or (ii) RA market reforms have been implemented.[16] Shell Energy agreed that the Commission should wait until RA market reforms have been completed.[17]

We are concerned that implementing the LTFP Proposal could reduce the accuracy of the RPS MPB. We may reconsider the inclusion of LTFP contracts in

---

[12] TURN's reply comments on the LTFP Proposal and Cal Advocates' opening comments on the LTFP Proposal.

[13] AReM/DACC's opening comments on the LTFP Proposal.

[14] CalCCA's opening comments on the LTFP Proposal.

[15] *See* opening comments on the LTFP Proposal of the Joint IOUs, CalCCA, and AReM/DACC.

[16] Joint IOUs' opening comments and post-workshop comments on the LTFP Proposal.

[17] Shell Energy's reply comments to LTFP Proposal.

the RPS MPB in the future if and when either (a) LTFP contracts represent a significantly larger portion of PCC-1 REC sales of excess RPS from PCIA portfolios or (b) RA market reforms have been implemented. The Commission may also further consider incorporating LTIP and STFP transactions at that time.

4. GHG-Free Resources

4.1. Whether GHG-Free Resources are Undervalued in the PCIA

Under existing methodologies used to calculate the PCIA, there is no specific metric for valuing GHG-free, non-RPS resources. This proceeding has considered various issues related to valuation of these resources.

In D.18-10-019, the Commission considered arguments by several parties that nuclear and large hydroelectric power have market premiums above fossil fuel power that are not reflected in PCIA calculations. The Commission found insufficient data on the record to support a finding that there is an observable market premium for these resources.[18] However, the Commission acknowledged that it might be appropriate to reconsider a market price benchmark for these resources "[i]f market changes demonstrate a consistent heightened value for GHG-free resources in the coming years."[19]

In D.21-05-030, the Commission considered a proposal by Southern California Edison Company (SCE), CalCCA, and Commercial Energy of California (together, the Working Group Co-Chairs) to allocate non-RPS, PCIA-eligible, GHG-free energy (GHG-Free Energy) to LSEs for showing GHG-Free

[18] D.18-10-019 at 150-151.

[19] D.18-10-019 at 152.

Energy on an LSE's Power Content Label (PCL) and for planning purposes in the LSE's Integrated Resource Plan (IRP).[20]

The Working Group Co-Chairs proposed that the utilities would annually provide a voluntary, all-or-nothing allocation of GHG-Free Energy, including any PCIA-eligible nuclear and/or large hydroelectric resources, to all PCIA-eligible LSEs. An LSE would have the option to accept or decline allocations of all nuclear resources and/or all large hydroelectric resources, distributed on the basis of the forecasted, vintaged, annual load share of the PCIA-eligible LSEs, multiplied by the actual GHG-Free Energy production realized from the IOU's PCIA-eligible resources in each pool over the course of the flow year. LSEs who decline their allocation for either pool of resources (nuclear or large hydroelectric) would have their allocation share of that pool redistributed among LSEs who accepted their allocation according to their vintaged, annual load share.[21]

The Working Group Co-Chairs proposed that the utility or its contracted counterparties would remain the scheduling coordinators of the resources, as applicable, and the benefiting LSEs would have no rights to specify how the resources are scheduled. LSEs accepting their allocations may claim the GHG-Free Energy deliveries on their PCLs, subject to approval by the California Energy Commission, and may claim credit toward Clean System Power procurement requirements established for IRPs based on the hourly generation profile of the vintaged portfolio.[22]

---

[20] D.21-05-030 at 45.

[21] D.21-05-030 at 45.

[22] D.21-05-030 at 46.

The Working Group Co-Chairs cited the interim process for voluntary allocations of GHG-Free Energy to LSEs in SCE's and PG&E's service territories, approved in Resolutions E-5046 and E-5095, as precedent for this approach.

In D.21-05-030, the Commission found that the record was insufficient to support the underlying rationale for the proposal, which was the assumption that GHG-Free Energy is currently under-valued in the PCIA methodology. The Commission concluded that this proceeding should continue to develop the record on whether GHG-Free Energy is under-valued in the PCIA methodology, and if so, whether to adopt a GHG-Free Energy adder or an allocation mechanism. In the meantime, the Commission extended the existing interim voluntary allocation process through December 31, 2023.

On September 12, 2022, ALJ Wang issued a ruling to request comments on an Energy Division staff proposal (GHG-Free Proposal) that presented an analysis of the incremental value of GHG-Free Energy based on confidential LSE sales data, and a recommendation for calculating a MPB for GHG-Free Energy rather than allocating GHG-Free Energy to LSEs. AReM/DACC, CalCCA, Cal Advocates, Coalition of California Utility Employees (CUE), PG&E, and SCE commented on the GHG-Free Proposal.

On June 17, 2022, Energy Division staff issued a data request to LSEs requesting information on recent transactions for GHG-Free resources. Energy Division's data request asked respondent LSEs to provide information on purchases (not sales) of GHG-Free Energy that met the following criteria:

a. Are from non-RPS-eligible, GHG-free resources located either within or outside of the California Independent System Operator (CAISO) Balancing Authority Area;

b. Would meet the definition of a "Specified Purchase" in the Power Source Disclosure Program, as outlined in Title 20, Section 1391 of the California Code of Regulations;

c. Were executed between December 1, 2019 and December 31, 2021;

d. Are, were, or will be used to serve the load of a Commission-jurisdictional LSE; and

e. Are not allocations pursuant to Resolutions E-5046, E-5095, and E-5111.[23]

Energy Division staff received responses from 38 LSEs, including 19 LSEs with no transactions to report. The remaining 19 respondents reported a total of 233 unique transactions.[24] The following table summarizes these transactions.

Table 1: Summary of Reported GHG-Free Transactions[25]

Category	Metric	# Transactions
Technology	Large Hydroelectric	210
	Nuclear	3
	Other	20
Location	In CAISO	84
	Out of CAISO	145
	Multiple	4
Length	<1 Year	134
	1 Year	81
	2-5 Years	17
	>5 Years	1
Includes RA Value	Yes	16
	No	217

[23] GHG-Free Proposal at 3.

[24] GHG-Free Proposal at 3

[25] GHG-Free Proposal at 4.

The vast majority of reported transactions are from large hydroelectric resources, have terms of one year or less, and do not also contain RA value. A majority of transactions are also located outside of the CAISO Balancing Authority Area. Transactions with "other" resource types were generally mixes of hydroelectric and nuclear, mixes of hydroelectric and wind, or portions of the entire portfolio of Asset Controlling Suppliers.[26]

The GHG-Free Proposal estimated the MPB values for 2021 and 2022 based on the reported transactions. In Table 2 below, staff analyzed transactions which delivered in 2021 and were executed between December 1, 2019 and August 31, 2021. In Table 3 below, staff analyzed transactions which delivered in 2022 and were executed between September 1, 2020 and August 31, 2021. Respondents were asked to forecast 2022 deliveries through the end of the year, as applicable. Staff confirmed that LSEs reported the incremental value of GHG-Free Resources. Staff removed transactions with no reported price or that had a price that included RA value.

Table 2: Staff Estimate of 2021 GHG-Free MPB

# Transactions	Total 2021 MWh	Median $/MWh	Weighted Average $/MWh
87	5,020,452	$4.25	$3.82

Table 3: Staff Estimate of 2022 GHG-Free MPB

# Transactions	Total 2022 MWh	Median $/MWh	Weighted Average $/MWh
12	2,098,350	$5.13	$4.88

[26] GHG-Free Proposal at 5.

The GHG-Free Proposal found that the reported transactions showed a heightened value for GHG-Free resources, which can be attributed to PCL value or meeting individual LSEs' GHG reduction goals more broadly.[27]

CalCCA, AReM/DACC, SCE, and PG&E agree that GHG-Free energy has heightened value above fossil fuel energy for PCL and/or marketing purposes. CalCCA asserted that GHG-Free energy has value to LSEs both in determining carbon intensity for the PCL and in other marketing efforts with customers.[28]

SCE and PG&E each acknowledged the PCL and/or marketing value of large hydroelectric energy in comments on the GHG-Free Proposal and by providing interim allocations of large hydroelectric energy. No party disputed that large hydroelectric energy has additional value to LSEs for PCL and marketing purposes, although PG&E asserted that several CCAs have publicly expressed an intention to avoid procuring nuclear energy.[29] We find that large hydroelectric energy has incremental value to LSEs for PCL and marketing purposes.

Cal Advocates argued that the GHG-Free Proposal errs in finding a heightened value of any type of GHG-Free energy because it relied on too few transactions.[30] PG&E opposed the finding of a heightened value for nuclear and "other" types of GHG-Free energy because the GHG-Free Proposal relied upon only 3 nuclear transactions and 20 transactions for "other" types of GHG-Free resources.

[27] GHG-Free Proposal at 9.

[28] CalCCA's opening comments on GHG-Free Proposal.

[29] PG&E's opening comments on GHG-Free Proposal.

[30] Cal Advocates' opening comments on the GHG-Free Proposal.

The GHG-Free Proposal relied upon a sufficient number of GHG-Free transactions executed between December 1, 2019 and December 31, 2021 to support a finding that large hydroelectric energy has a heightened, incremental market value above fossil fuel energy. However, we agree that the GHG-Free Proposal relied on an insufficient number of nuclear and other non-hydroelectric transactions to find a heightened market value for these other types of GHG-Free energy.[31]

SCE, PG&E, Cal Advocates, and CUE each argued that the GHG-Free Proposal does not prove that GHG-Free energy has measurable, heightened market value. These parties argued against the staff methodology, claiming that there is no evidence that the market premium paid by LSEs above energy value and RA value for the reported transactions, including many out-of-CAISO transactions, should be attributed to the GHG-Free attributes of the energy.[32] PG&E argued that importing energy to the CAISO system can incur transmission costs and charges, and that the premium observed by staff could be for the cost of importing energy rather than GHG-Free attributes.[33] CalCCA replied that many of the out-of-CAISO hydroelectric transactions are with California's publicly-owned utilities, and these California resources are delivered to the

[31] The GHG-Free Proposal also noted that Public Utilities (Pub. Util.) Code Section 712.8(l) provides that operational costs for Diablo Canyon beyond its current retirement dates would be recovered from customers of all LSEs subject to the Commission's jurisdiction, on a nonbypassable basis. This means that regardless of whether Diablo Canyon retires by 2025, it will no longer be PCIA-eligible at that time.

[32] *See* comments on the GHG-Free Proposal of SCE, PG&E, CUE, and Cal Advocates.

[33] PG&E's opening comments on GHG-Free Proposal.

CAISO using the publicly-owned utilities' own transmission systems and paying the same CAISO transmission access charge as any other transaction.[34]

We do not find PG&E's argument that the premium should be attributed to the costs of importing energy to be persuasive. The data indicates that LSEs intentionally paid a premium to import large hydroelectric resources despite higher prices. Parties agree that LSEs seek hydroelectric power for PCL and marketing purposes. No party has asserted that energy resources have a heightened value to a buyer solely because they are located outside of CAISO or out of state.

On March 3, 2023, ALJ Wang issued another ruling with a supplement to the GHG-Free Proposal (Supplemental Proposal). The Supplemental Proposal contained Energy Division staff's analysis of non-nuclear transactions reported in response to the June 2022 data request, including the results of a second round of outreach staff had conducted to confirm how respondents had arrived at the incremental GHG-Free values they reported.

Energy Division staff confirmed that 29 of the roughly 80 non-nuclear transactions used to calculate the 2021 GHG-Free MPB in Table 2, and 9 of the 12 non-nuclear transactions used to calculate the 2022 GHG-Free MPB in Table 3, derived from contracts that identified a specific, incremental GHG-Free value (Incremental Value Defined GHG-Free Transactions), either as the price of a standalone GHG-Free product or as the GHG-Free "plus" portion of an index-plus price structure. The analysis noted that "it is possible that most or all of the remaining transactions...are actually Incremental Value Defined GHG-Free Transactions. Energy Division simply was not able to confirm with the associated

[34] CalCCA's reply comments on the GHG-Free Proposal.

LSEs."[35] The Energy Division staff's analysis in the Supplemental Proposal found a heightened incremental value among Incremental Value Defined GHG-Free Transactions.

AReM/DACC, CalCCA, PG&E, and SCE filed opening comments on the Supplemental Proposal on March 17, 2023. AReM/DACC, CalCCA, Marin Clean Energy (MCE), PG&E, SCE, and Silicon Valley Clean Energy (SVCE) filed reply comments on the Supplemental Proposal on March 24, 2023.

In comments on the Supplemental Proposal, AReM/DACC argued that nuclear generation should not be excluded from the GHG-Free framework because it meets the definition of a GHG-Free resource and because some LSEs' acceptance of interim nuclear allocations demonstrates value. In reply comments, AReM/DACC argued further that if the Commission were to adopt the Supplemental Proposal, nuclear GHG-Free attributes should be included in above-market calculations. MCE similarly argued that some LSEs' refusal to accept nuclear allocations does not indicate they have no value and posited that the lack of nuclear transactions in staff's dataset is due to the fact that there are currently interim allocations of nuclear GHG-Free attributes.[36] PG&E disagreed, arguing that the available data does not support including nuclear transactions in a GHG-Free MPB at this time.[37]

As discussed above, the standard for determining whether to adopt a PCIA adder or allocation mechanism for a GHG Free resource is whether the data shows a "consistent, heightened incremental market value above fossil energy" for that resource. The GHG-Free Proposal relied on an insufficient

[35] Supplemental Proposal at 1.

[36] MCE's reply comments on the Supplemental Proposal.

[37] PG&E's reply comments on the Supplemental Proposal.

number of nuclear transactions to find a heightened incremental market value for nuclear transactions at this time. Neither AReM/DACC nor MCE offered additional data with their comments on the Supplemental Proposal to support a finding of a heightened incremental market value for nuclear transactions.

In the GHG-Free Proposal, the Energy Division asserted its expectation that the incremental value of GHG-Free resources will be consistently heightened due to the state's climate goals and the ongoing development of a GHG reduction compliance program in the Commission's IRP proceeding.[38] Some parties acknowledged that the creation of a GHG emissions reduction program through the IRP proceeding may eventually create a new compliance value for GHG-Free resources.[39] Cal Advocates disagreed, arguing that the development of a GHG reduction program in the Commission's IRP proceeding could impact or obviate the need for a GHG-Free adder since different approaches to a GHG reduction program could yield alternate ways of incorporating any future GHG-Free premium value into the PCIA. Cal Advocates recommended that the Commission refrain from adopting a GHG-Free adder until the Commission adopts a GHG emissions reduction program in the IRP proceeding.[40] We acknowledge that the Commission's efforts in the IRP proceeding may eventually require us to revisit any methodology for addressing the incremental value of GHG-Free resources in PCIA calculations.

No party argued that the PCL or marketing value of large hydroelectric resources will not persist. We expect that large hydroelectric resources will have a consistent, heightened value to LSEs for PCL and marketing purposes.

---

[38] *See* R.20-05-003 to Continue Electric IRP and Related Procurement Processes.

[39] *See* PG&E and CUE opening comments on the GHG-Free Proposal.

[40] Cal Advocates' opening comments on the GHG-Free Proposal.

For the reasons above, we find that large hydroelectric energy resources have a consistent, heightened incremental market value above fossil energy. Accordingly, we will consider whether to adopt a PCIA adder or allocation mechanism for large hydroelectric resources in this decision. We may consider addressing nuclear or other types of GHG-Free resources in the future if LSEs have sufficient transactions and if the transactions show a consistent, heightened incremental market value for a specific GHG-Free resource. We may also revisit the GHG-Free adder or allocation mechanism adopted in this decision if needed to address the impact on PCIA calculations of a future Commission decision to create a GHG emissions reduction compliance program.

4.2. Whether to Adopt an Adder or Allocation Mechanism for Large Hydroelectric Resources

The GHG-Free Proposal recommended adopting a PCIA adder in the form of an MPB instead of a permanent allocation mechanism for GHG-Free resources for three reasons. First, the GHG-Free Proposal demonstrated that it is now feasible to calculate an MPB for GHG-Free resources based on LSE transactions. Second, the GHG-Free Proposal asserted that an MPB approach is consistent with PCIA decisions and is less complex than allocating "excess" GHG-Free resources. Staff noted that it is unclear whether there will be an "excess" of GHG-Free resources in IOUs' portfolios going forward. Third, the GHG-Free Proposal argued that an MPB approach will mitigate the risk of unintended consequences. As the Commission described in D.21-05-030, an allocation approach would require IOUs' PCLs to show GHG-emitting resources of departed load unless the California Energy Commission (CEC) changes PCL reporting requirements.[41]

[41] GHG-Free Proposal at 6-7.

AReM/DACC and CalCCA supported the GHG-Free Proposal to create a PCIA MPB. AReM/DACC asserted that an MPB is "the best way to address the to date unaccounted for value of GHG-Free energy."[42] CalCCA noted that while it continues to prefer a "simple extension" of the interim allocation of GHG-Free resources, "the GHG-Free Proposal's establishment of a GHG-Free MPB is a workable alternative that will convey GHG-Free resource value to unbundled customers, while preventing cost shifting." CalCCA agreed that the MPB approach is consistent with existing PCIA policies and will present less complexity than maintaining a framework of annual allocation, transacting, and accounting for these resources, as well as accounting for allocated resources in the IRPs.[43]

SCE opposed the MPB approach but supported continuation of the interim allocation approach, arguing that the approach has been easy to implement and avoids concerns about whether an MPB captures the incremental value of GHG-Free attributes. However, SCE conditioned its support for allocations, noting that allocations will make the IOUs' portfolios appear less clean for PCL purposes absent a change in PCL reporting for the IOUs' PCIA-eligible, GHG-emitting resources. Pending the resolution of a change of the CEC's PCL reporting policies, SCE recommended the Commission require that any GHG-Free allocation must accompany an allocation (on a vintaged, load share basis) of GHG emissions from the IOUs' PCIA-eligible portfolios.

PG&E and CUE also raised concerns about requiring allocations resulting in allowing LSEs to "cherry-pick" GHG-Free resources to show on PCL labels,

[42] AReM/DACC's opening comments on the GHG-Free Proposal.

[43] CalCCA's opening comments on the GHG-Free Proposal.

making CCA customers appear greener than bundled customers.[44] PG&E expressed a preference for the MPB approach if the Commission found a compliance need for GHG-Free attributes. However, PG&E also proposed that if a utility portfolio is sufficiently long relative to bundled need, the utility should have the option to allocate GHG-related attributes based on load share.[45]

The Supplemental Proposal recommended allowing each IOU to choose each year whether it would provide allocations of energy from non-RPS-eligible, large hydropower resources or would instead use an MPB calculated by Energy Division staff. IOUs would be required to indicate their selections in their ERRA Forecast Application filings for each year, with the exception of SDG&E, whose portfolio would be subject to the MPB since it does not have an approved interim allocation process in place. For 2024 only, PG&E and SCE would be required to make their election by June 15, 2023 via a Tier 1 advice letter and update their 2024 ERRA Forecast Application workpapers, as applicable, by July 15, 2023. PG&E and SCE would also be required to update their interim allocation processes via a Tier 1 advice letter, regardless of whether they intend to offer allocations in the future.

AReM/DACC argued against an annual election, stating that it would create volatility in non-IOU LSEs' planning processes and that it would enable the IOUs to choose between the two options based on their own interests. AReM/DACC recommended that the Commission mandate either an allocation or an MPB in its final decision.[46] PG&E and SCE rejected this recommendation in their reply comments. PG&E argued that an annual election is appropriate

[44] *See* opening comments on the GHG-Free Proposal of PG&E and CUE.

[45] PG&E's opening comments on the GHG-Free Proposal.

[46] AReM/DACC's opening comments on the Supplemental Proposal.

because of its ongoing concerns with the basis for a GHG-Free MPB calculation and because of the risk of future regulatory change. PG&E also argued that the portion of the IOUs' portfolios that would be subject to a GHG-Free MPB is small enough that PCIA volatility should not be a concern.[47]

CalCCA proposed requiring IOUs to make elections for several years at a time, corresponding to the three-year RPS compliance period, to support non-IOU LSEs' planning.[48] SCE supported a three-year election in reply comments. In comments on the proposed decision, AReM/DACC recommended explicitly aligning election periods with RPS compliance periods, which may be longer than three years.

CalCCA proposed that the IOUs continue offering allocations of nuclear attributes alongside the adopted GHG-Free framework.[49] SCE proposed the same, but only in years when an LSE elects a GHG-Free allocation.[50] In reply comments, AReM/DACC proposed that the IOUs allocate nuclear attributes if the adopted GHG-Free MPB does not include nuclear transactions. MCE proposed the additional stipulation that any unaccepted nuclear allocations be valued using a GHG-Free MPB.[51] PG&E did not oppose allowing continued nuclear allocations but recommended that if allocations continue, the Commission should also set the benchmark for nuclear resources at $0.[52]

[47] PG&E's reply comments on the Supplemental Proposal.

[48] CalCCA's opening comments on the Supplemental Proposal.

[49] CalCCA's opening comments on the Supplemental Proposal.

[50] SCE's opening comments on the Supplemental Proposal.

[51] MCE's reply comments on the Supplemental Proposal.

[52] PG&E's reply comments on the Supplemental Proposal.

PG&E proposed the ERRA October Update as the deadline for IOUs to make annual elections, instead of the earlier ERRA Forecast Application filing deadline. PG&E argued that, given the lack of a viable alternative benchmark, the election should follow Energy Division's annual determination of whether the minimum criteria for calculating an MPB were met. PG&E also proposed setting the election deadline for 2024 at 30 days after the IOUs file their Bundled Procurement Plan revisions.[53] SCE supported the ERRA October Update as the deadline for annual elections.[54] CalCCA opposed PG&E's proposal to move back the annual election deadline, arguing that even the ERRA Forecast Application deadline in the Supplemental Proposal is too late to support long-term planning by non-IOU LSEs.[55]

Finally, PG&E proposed that the deadline for IOUs to file a Tier 1 advice letter updating their 2014 Conformed Bundled Procurement plans be 30 days after the effective date of this decision, rather than 15 days.[56] No party opposed this proposal.

We see the benefits of adopting the Supplemental Proposal's approach, which provides each utility with the flexibility to use the interim allocation approach if a utility has sufficient GHG-Free resources to serve bundled load without creating PCL reporting concerns, or to rely upon the MPB approach if a utility wants to avoid impacts on PCL reporting or any other complexities involved in an allocation. However, we agree with some parties that a multi-year election aligning with RPS compliance cycles would benefit LSEs' ability to plan.

[53] PG&E's opening comments on the Supplemental Proposal.

[54] SCE's reply comments on the Supplemental Proposal.

[55] CalCCA's reply comments on the Supplemental Proposal.

[56] PG&E's opening comments on the Supplemental Proposal.

This decision adopts a multi-year election period that aligns with each RPS compliance period, plus a standalone, one-year election for 2024 for alignment with the current RPS compliance period.

It is reasonable to allow PG&E and SCE to each elect to provide an interim voluntary allocation of large hydroelectric energy to each LSE during an election period. The utility's ERRA Forecast Application deadline for the first year of the associated RPS compliance period should be the deadline for its election of an allocation, and all subsequent ERRA Forecast Applications during the election period should reflect that election. The ERRA Forecast Application deadline strikes a reasonable balance between the later election deadline proposed by PG&E and an earlier deadline preferred by CalCCA.

We recognize PG&E's concerns regarding a lack of a viable alternative benchmark to use before Energy Division staff have determined whether they can calculate a GHG-Free MPB for a given year. We will direct the IOUs to use either the most recently-calculated GHG-Free MBP in its ERRA Forecast proceeding filings, regardless of whether it was a Forecast or True-Up MPB, as a proxy for the associated forecast year, or otherwise to use $0/MWh as the proxy GHG-Free MPB if no GHG-Free MPB was calculated within the previous 18 months.

Since the ERRA Forecast Application filing deadline for 2024 will have passed by the effective date of this decision, for 2024 only, PG&E and SCE must each indicate its election by filing a Tier 1 advice letter within 60 days of the effective date of this decision and must update its 2024 ERRA Forecast Application workpapers, as applicable, within 90 days of the effective date of this decision. If a utility does not timely elect to provide an interim voluntary allocation, an MPB for large hydroelectric energy will apply to the IOU's

applicable PCIA-eligible portfolio that year (for 2024) or that three-year period (for years after 2024). Any non-RPS-eligible, large hydropower resources in SDG&E's portfolio will automatically be subject to the GHG-Free MPB.

Although we only adopt a GHG-Free allocation or MPB process for large hydroelectric energy resources, we recognize parties' interest in nuclear allocations. We will allow, but will not require, the IOUs to continue to offer allocations of PCIA-eligible nuclear resources on a voluntary, annual basis, separate from the GHG-Free requirements we adopt for large hydroelectric energy resources. In doing so, we reiterate that Unit 1 of the Diablo Canyon nuclear generation station will no longer be PCIA eligible after 2024 and that Unit 2 will no longer be PCIA eligible after 2025, corresponding to the expiration of each unit's existing Nuclear Regulatory Commission license. As a result, any voluntary allocations of GHG-Free attributes from either unit pursuant to this decision will expire along with its PCIA eligibility. This decision will not modify any aspect of the existing, interim allocation process for nuclear resources, including the deadline by which an IOU must determine whether it will offer nuclear allocations in the following year. Because we are not adopting a GHG-Free MPB that incorporates or applies to nuclear resources, we decline to adopt a proxy dollar value for nuclear resources.

Regardless of whether PG&E and SCE elect to provide GHG-Free allocations in the future, each must revise the portion of its 2014 Conformed Bundled Procurement Plan that pertains to interim GHG-Free allocations to reflect the modifications we make here. PG&E and SCE must submit the changes via a Tier 2 advice letter within 30 days of the effective date of this decision. At a minimum, their revisions should include the following:

a. GHG-Free allocations may occur beyond 2023, depending on the IOU's election for any given year;

b. GHG-Free allocations will be for one year in 2024 or for multi-year periods in any year after 2024, corresponding to RPS compliance cycles;

c. Unless and until the Commission determines otherwise, only non-RPS-eligible, large hydropower resources will be eligible for GHG-Free allocation beyond 2023;

d. The deadline for the IOU to determine whether it will offer allocations in 2025 or beyond is the ERRA Forecast Application deadline for the first year of the associated RPS compliance cycle; and

e. The IOU may continue offering annual allocations of nuclear energy on a voluntary basis after 2023, according to the existing interim allocation processes adopted in Resolution E-5046 for PG&E (revised and extended in Resolution E-5111) and Resolution E-5095 for SCE (extended by D.21-05-030), and separately from the GHG-Free allocation or MPB process.

4.3. How to Calculate a GHG-Free MPB

The GHG-Free Proposal recommended the following process and methodology for calculating an MPB for GHG-Free energy.

a. Energy Division would publish the relevant forecast and true-up (final) MPB for GHG-Free energy in accordance with the timing established in D.22-01-023. Energy Division would use the execution date and delivery date parameters adopted for RPS resources in D.19-10-001. The GHG-Free MPB would be expressed in terms of dollars per megawatt-hour ($/MWh).

b. Energy Division would issue a GHG-Free Resource Supplemental Data Request as an addendum to each of the semiannual RPS-PCIA Data Requests, due at the same time as the RPS-PCIA data requests.

c. The data request would include transactions for in-CAISO and out-of-CAISO large hydroelectric resources and other

types of GHG-Free resources. Energy Division would request that respondents only report purchase transactions and only report sales to non-LSE counterparties to avoid double-counting of transactions for which both counterparties are respondents. Energy Division would request that all reported purchase volumes are net of any subsequent sales. Energy Division would request that respondents only report the incremental GHG-Free value of these transactions, without including any energy or RA value.

d. The utilities would be required to add a new line item to the PCIA workpapers in their ERRA Forecast Applications to identify the output and incremental value of GHG-Free resources. The IOUs would use the relevant forecast and true-up GHG-Free MPBs to calculate the value of GHG-Free resources, as they do with RPS and RA resources.

The ruling on the GHG-Free Proposal requested comments on the proposed methodology and whether any party would recommend the use of a commercially available index to establish an MPB for GHG-Free energy. No party identified a commercially available index for this purpose.

CalCCA and AReM/DACC supported staff's proposed methodology for establishing a GHG-Free MPB without reservations.

CUE and PG&E raised concerns about relying on LSE data regarding GHG-Free incremental value without sufficient review and monitoring.[57]

PG&E and SCE similarly commented on the need to remove RA and energy value from GHG-Free transactions that include these values. PG&E proposed a method for extracting RA value based on the RA MPB, but noted that changes to the RA program may impact the RA MPB and add complexity to that

[57] Opening comments on the GHG-Free Proposal of PG&E and CUE.

approach in the coming years.[58] PG&E also commented that the data request template should request information concerning the total cost of the reported transaction and whether any products additional to GHG-Free attributes are included as part of the transaction. SCE asserted that removing the RA values from transactions involving RA attributes can be challenging as it tends to second guess what the parties intended in reaching an all-in price for multiple resource value streams, thereby introducing potential inaccuracies in the market valuation.[59]

SCE argued that the data request for the GHG-Free MPB should include sales of the utilities' GHG-Free resources to CAISO since these sales comprise the vast majority of sales of GHG-Free resources. However, CalCCA pointed out that the reason why an MPB or allocation is needed is because the utilities have refused to offer their GHG-Free resources to LSEs, resulting in constraints on California's GHG-Free energy market.[60] The Commission has previously determined that PCIA MPB calculations should be based upon market transactions. Accordingly, it is reasonable for GHG-Free MPB calculations to exclude sales of utilities' GHG-Free resources to CAISO so long as these resources are not offered for sale to LSEs.

The Supplemental Proposal proposed the same GHG-Free MPB calculation process as in the GHG-Free Proposal, with the following modifications:

a. Unless and until the Commission determines otherwise, Energy Division will only include transactions for energy from non-RPS-eligible, large hydropower resources in the GHG-Free MPB calculation. Transactions with multiple

[58] PG&E's opening comments on the GHG-Free Proposal.

[59] SCE's opening comments on the GHG-Free Proposal.

[60] CalCCA's reply comments on the GHG-Free Proposal.

resources, including Asset Controlling Supplier (ACS) transactions, may also be included to the extent that LSEs can identify the percentage of output from these transactions that is associated with non-RPS-eligible, large hydropower resources. Energy Division Staff will have the discretion to determine whether a particular transaction with multiple resources meets this criterion.

b. Energy Division will only include Incremental Value Defined GHG-Free Transactions, i.e., transactions for which the contract identifies a specific, incremental GHG-Free value, either as the price of a standalone GHG-Free product or as the GHG-Free "plus" portion of an index-plus price structure.

c. Energy Division will apply the same execution date and delivery date parameters that apply to STIP resources included in the RPS MPB, which are currently the parameters adopted in D.22-01-023.

d. Energy Division will issue at least one GHG-Free data request per year, ideally in conjunction with one or both of the semiannual RPS-PCIA data requests.

e. Regardless of the annual elections that IOUs make, Energy Division will only calculate a forecast or final GHG-Free MPB for a given year if there are at least 10 transactions that meet the criteria for inclusion in the relevant MPB calculation. If an IOU chooses MPB treatment for its portfolio in a given year, but Energy Division subsequently finds that there are too few transactions to calculate a forecast or final GHG-Free MBP for that year, the forecast or final MPB will be "$0" in the IOU's relevant October ERRA Forecast Update.

f. PG&E's and SCE's interim GHG-Free allocations will not sunset by December 31, 2023. Instead, PG&E and SCE will elect whether to offer allocations each year. PG&E and SCE must revise the interim allocation provisions in their tariffs, as described below, regardless of whether they intend to offer allocations past 2023.

g. Each IOU's ERRA Forecast workpapers in each year must reflect either MPB treatment or allocations for non-RPS-eligible, large hydropower resources, depending on the IOU's decision for the relevant year (as applicable).

SCE raised concerns regarding the inclusion of ACS transactions, arguing that ACS transactions do not reflect the majority of transactions with California and instead reflect arbitrage opportunities for suppliers in other states.[61] Similarly, PG&E reiterated its recommendation in earlier comments that the Commission exclude out-of-CAISO transactions from the MPB calculation.[62] SCE agreed with PG&E's recommendation, and AReM/DACC and CalCCA opposed the recommendation on the grounds that the reported prices for out-of-CAISO transactions accurately reflect the value that the GHG-Free MPB attempts to capture.[63] As we discussed earlier in this decision, no party has asserted that energy resources have a heightened value to a buyer solely because they are located out of CAISO or out of state. We do not find that there is a sufficient justification to exclude out-of-CAISO transactions or transactions with multiple resources from the GHG-Free MPB. With regard to transactions with multiple resources, we note that the Supplemental Proposal contained a related screening provision: Energy Division staff will have the discretion to determine whether any reported transactions with multiple resources meet the criteria for inclusion in the MPB calculation, and to reject them if not. Staff may require LSEs to provide contracts or other supporting documentation that demonstrates the actual or forecast proportion of electrical energy from the transaction that derives

[61] SCE opening comments on the Supplemental Proposal.

[62] PG&E's opening comments on the Supplemental Proposal.

[63] *See* the SCE, AReM/DACC, and CalCCA reply comments on the Supplemental Proposal.

from non-RPS-eligible, large hydropower. The GHG-Free MPB calculations will exclude ACS transactions.

AReM/DACC opposed setting a minimum number of transactions included in the GHG-Free MPB calculation. AReM/DACC argued that there are no confidentiality concerns with a small number of transactions and that a small number of transactions does not indicate the absence of market value.[64] PG&E supported the concept of a threshold but recommended a volume-based threshold of 3,500 gigawatt hours (GWh) (roughly representing the output of the 29 Incremental Value Defined GHG-Free Transactions in the Supplemental Proposal) from resources located within CAISO, instead of one based on the number of contracts.[65] In reply comments, CalCCA opposed both a threshold based on the number of transactions and PG&E's volume-based proposal. CalCCA argued that the proportion of in-CAISO large hydropower resources owned by PG&E, SCE, and the Department of Water Resources would effectively let those entities choose whether there would be a GHG-Free MPB in any year. CalCCA concluded that if the Commission adopts a volume-based threshold, it should incorporate out-of-CAISO large hydropower resources. AReM/DACC similarly opposed PG&E's proposal and recommended a transaction-by-transaction threshold of 10% of the underlying resource's average output over the previous five years.[66] SCE supported PG&E's proposal but recommended that it include both a 3,500 GWh threshold and a ten-contract threshold, both of which must be met in order to calculate a GHG-Free MPB.[67]

[64] AReM/DACC's opening comments on the Supplemental Proposal.

[65] PG&E opening comments on the Supplemental Proposal.

[66] AReM/DACC's reply comments on the Supplemental Proposal.

[67] SCE reply comments on the Supplemental Proposal.

We agree that a volume-based threshold is better than a threshold based on the number of contracts. Recognizing the wide range of average and total transaction volumes for both RPS and GHG-Free resources presented in the Supplemental Proposal, we must set the threshold low enough so as not to preclude some variation from year to year. This decision sets the minimum threshold for establishing a GHG-Free MPB for a given year at 1,000 GWh which, as shown in the Supplemental Proposal, is about one half of the total volume of Incremental Value Defined GHG-Free Transactions delivering in 2022 and about one third of the smallest total volume of RPS transactions used in an RPS MPB calculation in the last several years.

It is reasonable to adopt the Supplemental Proposal's recommended process and methodology for establishing an MPB for large hydroelectric resources, with the modifications we made in this decision, as set forth in Appendix A.

5. Energy Index MPB

The Energy Index MPB approximates the market value of energy from all PCIA-eligible resources.[68] In D.22-01-023, the Commission stated its intention to consider proposals to refine the method of weighting of the Energy Index MPB in PCIA calculations in Phase 2 of this proceeding. On April 18, 2022, ALJ Wang issued a ruling to direct the IOUs to file a joint proposal to refine the Energy Index MPB calculations and inviting other parties to file proposals. The Joint IOUs, AReM/DACC, and CalCCA filed proposals on June 13, 2022 and filed comments on those proposals on July 8, 2022. The Joint IOUs and CalCCA filed reply comments on July 22, 2022.

[68] The Energy Index was previously called the Brown Power Index. It was renamed because it includes clean resources as well as fossil fuel resources.

Parties discussed these proposals at the June 29, 2022 workshop and the November 18, 2022 workshop held by Energy Division.

On September 12, 2022, ALJ Wang directed the Joint IOUs to file a supplemental analysis of their proposal to exclude certain resources from the forecast energy MPB calculation (Supplemental Energy Index Analysis) and invited other parties to file reply comments. The Joint IOUs filed the Supplemental Energy Index Analysis on November 8, 2022, and CalCCA, CLECA, CUE, PG&E, and SCE filed comments on the Supplemental Energy Index Analysis on November 30, 2022.

The Joint IOUs argued that the problem with the current methodology is that it was based on the assumption that bundled load profiles used for weighting the Energy Index MPB would not differ substantially from the generation output portfolio, which did not consider load departure. Currently the Energy Index MPB methodology applies the Platts index on- and off-peak forecast prices to the load shape of bundled service customers that were most recently served by the Joint IOUs. However, the PCIA is intended to value the products in each Joint IOUs' PCIA portfolio. Further, PCIA portfolios have a mix of generating technologies, including a large amount of solar, with generation profiles that can result in more or less supply relative to the bundled load requirement depending on the hours and the time of the year. Parties agreed with this problem statement.

The Joint IOUs proposed to modify the Energy Index MPB weighting as described in detail in Appendix B. In summary, the Joint IOUs proposed to modify the Energy Index MPB weighting as follows:

a. Apply on- and off-peak weightings that are based on time weightings as opposed to bundled load weightings to the on- and off-peak Platts data;

b. Calculate portfolio weighting using the historical annual weighted average price of the PCIA-eligible portfolio divided by the average 12-month CAISO trading hub price: SP15 for SCE and San Diego Gas & Electric Company (SDG&E) or NP15 for PG&E; and

c. Apply "portfolio weighting" to determine the forecast Energy Index MPB that will be used to set PCIA rates on a forecast basis.

The Joint IOUs analyzed their 2020-2022 ERRA Forecast results using their Energy Index MPB proposal and shared the following results:

- PG&E would have had a slight reduction in its 2020-2022 PCIA revenue requirements of $20 million, $24 million, and $16 million, respectively.
- SCE would have had an additional $170 million in above market costs in forecast PCIA rates. SCE would have included an additional $235 million and $413 million in forecast 2021 and 2022 PCIA rates, respectively.
- SDG&E would have had increases to its MPBs, lower above-market cost revenue requirements for 2020-2022 ERRA Forecasts, and lower PCIA rates. SDG&E's PABA revenue requirement would have been $58.7 million, $35.2 million, and $53.5 million lower in the 2020-2022 ERRA Forecasts, respectively.

While the Joint IOUs and CalCCA initially filed separate proposals, CalCCA supported the Joint IOUs' proposal in opening comments on the proposals, subject to the following conditions: (a) IOUs must provide weighting factors and underlying data in their ERRA Forecast Application filings, and (b) the averaging methodology must be subject to review in ERRA Forecast cases. CalCCA supports the Joint IOUs' use of historical data because it supports transparency in establishing the Energy Index MPB.[69]

[69] CalCCA's opening comments on the Energy Index MPB proposals.

AReM/DACC opposed the Joint IOUs' proposal and offered an alternate approach to modifying the weighting of the Energy Index MPB. AReM/DACC argued that the Joint IOUs' proposal would add significant complexity to the calculation because it requires three years of data for portfolio revenue and average day ahead prices.[70] In contrast, AReM/DACC proposed to weight forward price quotes using each IOU's projected portfolio output. Energy Division staff would be required to average NP15 and SP15 on- and off-peak forward price quotes for each day they are available in September, resulting in four values: on- and off-peak for NP15 and SP15. By September 30, each IOU would provide Energy Division the projected MWh output of its respective portfolio during on- and off-peak periods. Energy Division would then calculate the on- and off-peak weighting factors for NP15 and SP15. Energy Division would apply on-peak and off-peak weighting factors to NP15 and SP15 on- and off-peak average forwards to arrive at the Energy Index MPBs for the three IOUs.[71]

No party supported AReM/DACC's proposal in comments. The Joint IOUs commented that AReM/DACC's approach would be less accurate and more administratively burdensome.[72] CalCCA replied that the Joint IOUs' proposal is superior to the AReM/DACC proposal because it is "transparent and easily verifiable" for reviewing representatives.[73]

We find that the Joint IOUs' Energy Index MPB Proposal would increase the accuracy of Energy Index MPB calculations without creating unreasonable

[70] AReM/DACC's opening comments on the Energy Index MPB proposals.

[71] AReM/DACC's Energy Index MPB proposal.

[72] Joint IOUs' opening and reply comments on the Energy Index MPB proposals.

[73] CalCCA's reply comments on the Energy Index MPB proposals.

administrative burdens. It is reasonable to adopt the Joint IOUs' Energy Index MPB Proposal as described in Appendix B to this decision. Each IOU shall provide weighting factors and underlying data in their ERRA Forecast Application filings, and the weighting methodology shall be subject to review in ERRA Forecast cases. Each IOU shall also serve supplemental testimony in its 2024 ERRA Forecast proceeding to provide Energy Index MPB weighting factors and underlying data by August 15, 2023.

In opening comments, the Joint IOUs proposed to refine their proposal by excluding from calculations the revenues from resources that will not be in the next year's portfolios. For example, the previous years' revenues from Diablo Canyon nuclear power plant would be excluded from the Energy Index calculation in the years after the power plant retires.[74] In the Joint IOUs' Supplemental Energy Index Analysis, the Joint IOUs clarified that they propose to remove from the three-year historical dataset only retired, expired, or other resources that are at least 100 MW in size and expected to be removed from PCIA portfolio for more than 6 months in the next year.

CLECA and CUE supported the Joint IOUs' proposal with this refinement.[75]

CalCCA strongly opposed this modification, with the exception of removing Diablo Canyon power plant from the historical dataset. CalCCA argued that the Joint IOUs' analysis shows that the proposed modification to remove resources at or above 100 MW shows little impact on the MPB and therefore is not worth the additional review work for parties to ERRA Forecast

[74] Joint IOUs' opening comments on the Energy Index MPB proposals.

[75] *See* CLECA and CUE's comments on the Joint IOUs' Supplemental Energy Index Analysis.

proceedings. However, due to the size of Diablo Canyon and the statutory requirement to remove Diablo Canyon from PG&E's PCIA-eligible resource portfolio,[76] CalCCA supports removal of Diablo Canyon from the historical dataset beginning with the 2025 forecast year.[77]

While we acknowledge CalCCA's concerns that reviewing all resources 100 MW or larger that the IOUs expect to remove from (or add to) their portfolios in ERRA Forecast cases would create additional administrative burdens, we will not limit the removal of resources from the calculation to Diablo Canyon. Other large resources may be removed from the PCIA portfolios of the IOUs in the future. It is reasonable to direct IOUs to add to or remove from the historical data for Energy Index weightings only resources that are 300 MW or larger.

6. ESP Data Access

Earlier in Phase 2 of this proceeding, CCAs and Direct Access providers argued that year-round access to confidential ERRA data is essential for making more accurate forecasts of the PCIA. CCAs argued that more accurate PCIA forecasts are necessary to advance the public purpose of reducing rate volatility for their customers.

In D.22-07-008, the Commission established a standard process for reviewing representatives of CCAs to (i) access confidential ERRA data for the purpose of developing PCIA and Portfolio Allocation Balancing Account (PABA) forecasts and (ii) disclose non-confidential analyses of PCIA forecasts to CCAs. The decision was based on findings that (i) protecting CCA customers from rate volatility is in the public interest, (ii) CCAs need accurate PCIA rate and PABA

[76] Pub. Util. Code Sections 712.8 (f) and 712.8 (l).

[77] CalCCA's comments on the Joint IOUs' Supplemental Energy Index Analysis.

balance forecasts to protect CCA customers from rate volatility, and (iii) CCA reviewing representatives need access to confidential, market sensitive ERRA data to make accurate PCIA rate and PABA balance forecasts and to effectively predict whether these trends are likely to self-correct or continue. However, ESPs did not provide sufficient justification for the Commission to make similar findings to support providing the same data access to ESPs.

On September 12, 2022, ALJ Wang issued a ruling to request detailed comments on how and why ESP access to reviewing representatives' analyses of PCIA data in accordance with D.22-07-008 (ESP Data Access) outside of the months of an active ERRA Forecast proceeding is necessary to provide a public benefit, as opposed to benefits to ESPs for business purposes. On November 7, 2022, AReM/DACC and Shell Energy filed comments on ESP Data Access. On November 30, 2022, AReM/DACC, CLECA, PG&E, SCE, and Shell Energy filed reply comments on ESP Data Access.

Shell Energy argued that ESPs could use this information to adjust a negotiated contract term or price to address rate volatility.[78] On the other hand, AReM/DACC asserted that the public benefit rationale for providing CCAs with this data access (reducing rate volatility for CCA customers) is not relevant because ESPs do not set rates for their customers. AReM/DACC elaborated that every ESP customer "receives a bespoke product based on their load shape, a desired product content, term desired, and financial risk tolerance. Some customers desired fixed priced energy, while others prefer more market indexed-

[78] Shell Energy's opening comments on ESP Data Access.

price energy. Based on these factors, customers and ESPs work out supply agreements that are mutually beneficial."[79]

PG&E replied that AReM/DACC's comments show that expanded access to confidential data would not be used for a public purpose like reducing rate volatility but would instead be used to support the business purpose. PG&E opposed the expansion of confidential data access for business purposes.[80]

In D.22-07-008, the Commission recognized the risks of expanding access to confidential, market sensitive data, including the potential for market manipulation. The Commission expanded data access to CCAs outside of ERRA Forecast proceedings based on a finding that CCA reviewing representatives need access to confidential, market-sensitive ERRA data to make sufficiently accurate PCIA rate and PABA balance forecasts to take actions to protect customers from rate volatility.

ESPs have not persuaded us that there is a sufficient public benefit of additional confidential data access that would justify an increased risk of disclosure of confidential, market sensitive information.

Next, AReM/DACC and Shell Energy each argued that ESPs should have the same access to PCIA data as CCAs have to avoid providing CCA customers with greater data access and associated benefits than ESP customers.[81] CLECA agreed with this point in reply comments.[82]

In D.22-07-008, the Commission provided that any CCA or organization representing CCAs may file, on behalf of all CCAs that seek PCIA forecasting

[79] AReM/DACC's opening comments on ESP Data Access.

[80] PG&E's reply comments on ESP Data Access.

[81] *See* opening comments of AReM/DACC and Shell Energy on ESP Data Access.

[82] CLECA's reply comments on ESP Data Access.

data access, a joint Tier 2 advice letter by December 1, 2022 to propose a standard template for conveying data analyses from CCA reviewing representatives to their clients up to once per quarter. However, no CCA or organization representing CCAs timely filed a Tier 2 advice letter to opt to access data through the standardized process authorized by D.22-07-008.

We decline to extend access to confidential data for PCIA forecasting purposes in accordance with D.22-07-008 to ESPs.

7. Summary of Public Comment

Rule 1.18 of the Commission's Rules of Practice and Procedure allows any member of the public to submit written comment in any Commission proceeding using the "Public Comment" tab of the online Docket Card for that proceeding on the Commission's website. Rule 1.18(b) requires that relevant written comment submitted in a proceeding be summarized in the final decision issued in that proceeding. There were no public comments relevant to the issues in this decision on the Docket Card for this proceeding.

8. Comments on Proposed Decision

The proposed decision of ALJ Stephanie Wang in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on May 24, 2023, by AReM/DACC, Cal Advocates, CalCCA, PG&E, SCE, Shell Energy, and TURN, and reply comments were filed on May 30, 2023, by AReM/DACC, CalCCA, and PG&E.

AReM/DACC commented that GHG-Free allocation election periods should match RPS procurement periods, which may be longer than three years. We agree that the GHG-Free allocation election periods should match RPS procurement periods and have revised the decision accordingly.

PG&E requested clarification about when the revised Energy Index methodology will be implemented and recommended implementation through the IOUs' October Updates to their ERRA Forecast applications. CalCCA replied that if the Commission adopts the revised methodology for the pending applications, then the Commission should direct the IOUs to provide the underlying weighting factors and data by August 15, 2023, to give parties sufficient time to review this information. We revised this decision to direct the IOUs to provide the underlying weighting factors and data by August 15, 2023.

SCE argued that the PD errs in including ACS transactions in GHG-Free MPB calculations. No party replied to this comment. Upon further consideration, we have revised this decision to exclude ACS transactions from GHG-Free MPB calculations. The inclusion of large hydroelectric resources in an ACS transaction is generally incidental rather than reflecting an intent to pay a premium for the PCL or marketing value of these resources.

AReM/DACC, CalCCA, PG&E, and SCE each commented that the Commission should keep this proceeding open to address concerns raised by these parties in comments on the ALJ ruling issued on March 3, 2023. CalCCA and PG&E also commented that the Commission should provide direction on where to address these concerns if this proceeding is closed. We respond to these comments below.

AReM/DACC, CalCCA, PG&E, and SCE urged the Commission to establish permanent rules for how to classify and value banked Renewable Energy Credits (REC) during PCIA rate development. The Commission provided sufficient direction for treatment of banked RECs in Section 5.1 and Attachment B of D.19-10-001. IOUs should apply the MPB for the year in which they use the banked REC.

AReM/DACC and CalCCA urged the Commission to set permanent rules for when and how to establish a new vintage for IOU contracts when they are amended, renewed, or extended. The Commission does not plan to consider permanent rules for when and how to establish a new vintage for IOU contracts. These issues tend to be highly fact-specific and should continue to be addressed on a case-by-case basis through advice letters and in ERRA Forecast proceedings.

PG&E and SCE requested a trigger process for the PABA balance and to allow the IOUs to automatically adjust PCIA rates during the year. The Commission does not plan to consider the creation of a new trigger process for the PABA balance in any proceeding.

AReM/DACC argues that Portfolio Content Category (PCC) 0 RECs should not be valued based on the current RPS MPB but should instead be based on a combination of prices for PCC-1, PCC-2, and PCC-3 RECs. The Commission's staff does not currently calculate MPB-like weighted prices for PCC-2 or PCC-3 RECs. The Commission does not plan to consider this issue in any proceeding.

9. Assignment of Proceeding

John Reynolds is the assigned Commissioner and Stephanie Wang is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. Large hydroelectric energy resources have a consistent, heightened incremental market value above fossil energy.
2. The Joint IOUs' Energy Index MPB Proposal described in Appendix B to this decision would increase the accuracy of Energy Index MPB calculations without creating unreasonable administrative burdens.

3. As of the date of this decision, no CCA has timely exercised the option to access data through the standardized process authorized by D.22-07-008.

Conclusions of Law

1. It is reasonable to establish a GHG-Free MPB to reflect the incremental market value of large hydroelectric resources above fossil energy.

2. The Commission should not include nuclear transactions in the GHG-Free MPB at this time.

3. It is reasonable to allow PG&E and SCE to each elect to provide interim voluntary allocations of large hydroelectric energy as an alternative to calculating a GHG-Free MPB for the utility's large hydroelectric resources.

4. It is reasonable to set the minimum threshold for establishing a GHG-Free MPB for a given year at 1,000 GWh.

5. The Commission should adopt a multi-year election period for GHG-Free allocations that aligns with each RPS compliance period, plus a standalone, one-year election period for 2024.

6. The ERRA Forecast Application deadline for the first year of a GHG-Free allocation election period should serve as the deadline for PG&E and SCE to make their elections, and all subsequent ERRA Forecast Applications during the election period should reflect their respective elections.

7. It is reasonable to allow utilities to continue to voluntarily provide annual allocations of nuclear resources.

8. It is reasonable for GHG-Free MPB calculations to exclude sales of investor-owned utilities' GHG-Free resources to CAISO so long as these resources are not offered for sale to LSEs.

9. It is reasonable to adopt the methodology for calculating a GHG-Free MPB for non-RPS-eligible, large hydroelectric energy resources in Appendix A of this decision.

10. It is reasonable to wait until either LTFP contracts represent a significantly larger portion of PCC-1 REC sales of excess RPS from PCIA portfolios or RA market reforms have been implemented by the Commission before further considering whether to incorporate LTFP, LTIP, and or STFP transactions into the RPS MPB.

11. It is reasonable to adopt the Joint IOUs' Energy Index MPB Proposal described in Appendix B to this decision.

12. The weighting methodology for the Energy Index MPB should be subject to review in ERRA Forecast cases.

13. It is reasonable to direct IOUs to provide weighting factors and underlying data for Energy Index MPB calculations by August 15, 2023 for the 2024 ERRA Forecast applications and in their subsequent ERRA Forecast Application filings.

14. It is reasonable to direct IOUs to add to or remove from the historical data for Energy Index weightings only resources that are 300 MW or larger.

15. It is reasonable to not extend access to confidential data for PCIA forecasting purposes in accordance with D.22-07-008 to ESPs.

O R D E R

IT IS ORDERED that:

1. Each load serving entity in the service territories of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall timely provide all data requested by the Commission's Energy Division in each Greenhouse Gas-Free Resource Supplemental Data Request as an addendum to the Renewables Portfolio Standard–Power Charge Indifference

Adjustment (RPS-PCIA) Data Requests, due at the same time as the RPS-PCIA Data Requests.

2. Pacific Gas and Electric Company and Southern California Edison Company shall each file a Tier 2 advice letter within 30 days of the effective date of this decision to revise the portion of its 2014 Conformed Bundled Procurement Plan that pertains to interim greenhouse gas-free allocations.

3. Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) shall each indicate, in the Energy Resource Recovery Account (ERRA) Forecast Application filing for the first year of a multi-year period corresponding to a Renewables Portfolio Standard compliance period, whether such utility shall elect to provide an interim allocation of large hydroelectric energy for that period. For 2024 only, PG&E and SCE shall each (a) file a Tier 1 advice letter within 60 days of the effective date of this decision to indicate whether it elects to provide an interim allocation of large hydroelectric energy and (b) update its 2024 ERRA Forecast Application workpapers, as applicable, within 90 days of the effective date of this decision to reflect whether it elects to provide an interim allocation of large hydroelectric energy.

4. If Pacific Gas and Electric Company or Southern California Edison Company does not timely elect to provide an interim allocation of large hydroelectric energy during a given year, such utility shall add a new line item to the Power Charge Indifference Adjustment workpapers in its Energy Resource Recovery Account Forecast Application to identify the output and incremental value of large hydroelectric resources, if any. The utility shall use the relevant forecast and true-up market price benchmarks to calculate the value of its large hydroelectric resources, if any.

5. San Diego Gas & Electric Company shall add a new line item to the Power Charge Indifference Adjustment workpapers in each Energy Resource Recovery Account Forecast Application to identify the output and incremental value of large hydroelectric resources, if any. The utility shall use the relevant forecast and true-up market price benchmarks to calculate the value of its large hydroelectric resources, if any.

6. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each provide Energy Index market price benchmark weighting factors and underlying data in Energy Resource Recovery Account Forecast Application filings and shall remove only resources that are 300 megawatts or larger from the historical data for Energy Index weightings. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall also each serve supplemental testimony in its 2024 ERRA Forecast proceeding to provide Energy Index market price benchmark weighting factors and underlying data by August 15, 2023.

7. All motions not previously ruled upon are hereby denied.

8. Rulemaking 17-06-026 is closed.

This order is effective today.

Dated June 8, 2023, at San Francisco, California.

ALICE REYNOLDS
President
GENEVIEVE SHIROMA
DARCIE L. HOUCK
JOHN REYNOLDS
KAREN DOUGLAS
Commissioners

APPENDIX A:

Adopted GHG-Free MPB Calculation Process

Appendix A

Adopted GHG-Free MPB Calculation Process

1. MPB Calculation Schedule

In accordance with D.22-01-023, Energy Division will publish the relevant forecast and true-up (final) GHG-Free MPBs on October 1 of each year, or on the next business day if October 1 is a weekend or a federal or state holiday. Energy Division will apply the same execution date and delivery date parameters adopted for short-term, index-plus RPS resources in calculating the RPS MPB, which are currently those adopted by D.22-01-023 (*see* Table A1 below).

Table A1: GHG-Free MPB Calculation Parameters

Benchmark	Data Inputs
Forecast MPB	Transactions from Sep. of year n-2 to Aug. of year n-1, with delivery in year n.
True-Up (Final) MPB	Transactions from Dec. of year n-2 to Aug. of year n, with delivery in year n.

Energy Division will only calculate a Forecast or True-Up GHG-Free MPB for a given year if the total volume of transactions that meet the criteria for inclusion in the calculation is at least 1,000 GWh. Otherwise, the Forecast or True-Up MPB will be "$0 per MWh."

2. Data Collection

Energy Division will issue at least one "GHG-Free Resource Supplemental Data Request" per year, in conjunction with the RPS-PCIA data requests, and due at the same time as the RPS-PCIA data requests.

3. Transactions to Include

Unless and until the Commission determines otherwise, Energy Division will only include transactions for energy from non-RPS-eligible, large hydropower resources in the GHG-Free MPB calculation. Transactions with multiple resources may also be included to the extent that respondents can identify the percentage of output from these transactions that is associated with non-RPS-eligible, large hydropower resources. Energy Division will have the discretion to determine whether a particular transaction with multiple resources meets this criterion. Transactions with asset-controlling suppliers (ACS) will be excluded.

Energy Division will only include Incremental Value Defined GHG-Free Transactions, i.e., transactions for which the contract identifies a specific, incremental GHG-Free value, either as the price of a standalone GHG-Free product or as the GHG-Free "plus" portion of an index-plus price structure.

Energy Division will have the discretion to design and revise the "GHG-Free Resource Supplemental Data Request" to avoid double-counting of transactions. This may include requesting that respondents only report purchase transactions, except in cases where respondents own GHG-Free resources that are sold to non-LSE counterparties, in which case Energy Division may request that respondents also report sales to those non-LSE counterparties. It may also include requesting that all reported purchase volumes be net of any subsequent sales.

4. Calculation Procedure

Energy Division will calculate GHG-Free MPBs as the volume-weighted average price of included transactions, using the specific, incremental GHG-Free value reported for each transaction. For each transaction with multiple resources,

Energy Division will apply the reported percentage of non-RPS-eligible, large hydropower resources to the associated annual output to arrive at an adjusted annual output for inclusion in the MBP calculation.

5. Implementation Timeline

Data collection for GHG-Free MPBs will begin with the second RPS-PCIA semiannual data request in 2023. Energy Division will calculate a 2024 Forecast GHG-Free MPB in time for the 2023 October Update but will not calculate a 2023 True-Up GHG-Free MPB. The first True-Up GHG-Free MPB will be the 2024 True-Up MPB, which Energy Division will calculate alongside the 2025 Forecast GHG-Free MPB, in time for the 2024 October Update.

6. ERRA Forecast Requirements

Each IOU's ERRA Forecast workpapers in each year must reflect either MPB treatment or allocations for non-RPS-eligible, large hydropower resources, depending on the IOU's decision for the relevant year or election period (as applicable).

IOUs will use the most recently-calculated GHG-Free MBP in its ERRA Forecast proceeding filings, regardless of whether it was a Forecast or True-Up MPB, as a proxy for the associated forecast year. If no GHG-Free MPB was calculated within the previous 18 months, then the IOU will use $0/MWh as the proxy GHG-Free MPB.

(END OF APPENDIX A)

.

APPENDIX B:

Summary of Joint IOUs' Proposal to
Modify Energy Index Weighting

Appendix B

Summary of Joint IOUs' Proposal to Modify Energy Index Weighting

1. Proposed Methodology Changes

The Joint IOUs propose to make two changes to the Energy Index MPB calculation methodology to better reflect energy supply in the Joint IOUs' PCIA-eligible portfolios.

a. First, the IOUs propose to apply on- and off-peak weightings that are based on time weightings as opposed to bundled load weightings to the on- and off-peak Platts data provided by Energy Division. This is achieved by using the CAISO calendar hours trading schedule that considers hour-ending (HE) 7 to HE22 as "on-peak" and HE23 to HE7 as "off-peak" during weekdays and Saturdays and all 24 hours as "off peak" for Sundays and North American Reliability Corporation (NERC) holidays. These weightings would replace the current on- and off-peak load weightings used in the Inputs tab of the common PCIA workpaper template and result in translating the on-peak and off-peak Platts data into a simple average index price equivalent to be applied against the portfolio weights presented below.

b. Second, after the IOUs complete the time weighting described immediately above, each IOU will then calculate a "portfolio weighting" that reflects the three-year historical variance between the energy revenues received from PCIA-eligible resources and the actual average NP15 (for PG&E) or SP15 (for SCE and SDG&E) day ahead market prices over that same time period.[83] The portfolio

[83] The Joint IOUs propose using three-years of historical data to normalize any anomalous market patterns that may exist in a single year and result in outliers having a less significant impact on the calculation. The Joint IOUs propose to use three full years of historical data,

Footnote continued on next page.

> weighting is calculated using the historical annual weighted average price of the PCIA-eligible portfolio divided by the average 12-month CAISO day ahead trading hub price (SP15 for SCE and SDG&E or NP15 for PG&E) as shown below. This relationship between the historical PCIA-eligible portfolio average price and the average 12-month CAISO trading hub price results in a factor or portfolio weighting that is then used to provide a more accurate forecast of the Energy Index MPB. This adjustment is necessary as the portfolio weight adjusts the PABA portfolio performance appropriately against the trading hub prices. This "portfolio weighting" is then applied to determine the forecast Energy Index MPB that will be used to set PCIA rates on a forecast basis. This change requires one additional line item to be added to the Inputs tab of the common PCIA workpaper template.

Each IOU is responsible for determining this weighting and will support the calculation in its October Update, which uses the following formula:

$$\textbf{Portfolio Weight} = \frac{\left(\frac{Actual\ PABA\ Portfolio\ Revenue}{Actual\ PABA\ Portfolio\ Volume}\right)}{Average\ SP15\ or\ NP15\ Actual\ Day\ Ahead\ Price}$$

The result of these changes is that the Energy Index MPB calculation would reflect both supply portfolio and time weights to determine a single MPB price as shown using the formula below.

$$\textbf{Energy Index MPB} = (Platts_{OnPeak} \times TimeWeight_{OnPeak}) + (Platts_{OffPeak} \times TimeWeight_{OffPeak})) \times Portfolio\_Weight$$

2. Proposed Implementation Plan

The Joint IOUs proposed the following roles, responsibilities, and process for implementation:

---

meaning the portfolio weighting for 2023 forecast rates would be based on historical data from 2019-2021.

a. The Joint IOUs proposed for the Energy Division to continue to provide the Platts-based inputs that the IOUs would then use to calculate the Forecast Energy Index MPB used in common PCIA workpaper template. This will result in consistent transparency (and costs) with what exists today.

c. The IOUs will then apply the new on- and off-peak weightings using the inputs described above, which is consistent with what the IOUs currently do (i.e., each IOU is responsible for providing the bundled load weightings today). The IOUs will also include data on the calculation of the portfolio weighting in the October Update submittals, which will provide full transparency into that new input.

d. The Joint IOUs believe the cost of obtaining the necessary data and performing the calculations to be de minimis given that the Platt's subscription is already recovered via the ERRA in generation rates and the two proposed modifications will be performed by the IOUs using existing data.

e. The Joint IOUs expect that the Energy Division's workload will remain the same, except that it will need to review an additional input calculated by the IOUs in the October Update.

f. The IOUs will include information in their October Updates that supports the weightings described above.

(END OF APPENDIX B)