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TO PARTIES OF RECORD IN APPLICATION 20-04-013:

This is the proposed decision of Administrative Law Judge Cathleen A. Fogel. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's February 11, 2021 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.2(c)(4)(B).

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:avs

Attachment

Decision PROPOSED DECISION OF ALJ FOGEL (Mailed 1/8/2021)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric
Company (U39E) for Approval and
Recovery of Oakland Clean Energy
Initiative Preferred Portfolio
Procurement Costs.

Application 20-04-013

**DECISION APPROVING OAKLAND CLEAN ENERGY INITIATIVE
PREFERRED PORTFOLIO PROCUREMENT COSTS AND COST RECOVERY**

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**DECISION APPROVING OAKLAND CLEAN ENERGY INITIATIVE
PREFERRED PORTFOLIO PROCUREMENT COSTS AND COST RECOVERY**

Summary

With this decision, we approve Pacific Gas and Electric Company's (PG&E) *Application for Approval and Recovery of Oakland Clean Energy Initiative Preferred Portfolio Procurement Costs*. We authorize PG&E to procure location-specific reliability services from two energy storage systems located at the Oakland L and Oakland C substations. Procurement Agreements for the two energy storage systems ensure they will provide 43.25 megawatts and 173 megawatt-hours if called during an emergency event. We authorize PG&E to recover the costs of the Agreements over their 10-year term for a total of approximately \$21.3 million, applying Cost Allocation Mechanism ratemaking treatment. Although the Agreements represent an unusual and unprecedented approach to energy storage reliability procurement before the Commission, their approval is consistent with statute and Commission decisions and enables an immediate transition away from an aging, fossil-fuel based reliability solution in the Oakland subarea.

This proceeding is closed.

1. Background

Pacific Gas and Electric Company (PG&E) filed application (A.) 20-04-013 for *Approval and Recovery of Oakland Clean Energy Initiative Preferred Portfolio Procurement Costs* (application) on April 15, 2020. PG&E's application seeks California Public Utilities Commission (Commission) approval to procure location-specific reliability services from two energy storage resources and to recover costs associated with those resources. The energy storage resources will be located in Oakland at the Oakland L and Oakland C substations. Together

these two four-hour energy storage systems will provide 43.25 megawatts (MW) and 173 megawatt-hours (MWh) if called during an emergency event.¹

The energy storage resources are part of a larger package of upgrades that will provide transmission reliability to the Oakland subarea and replace the 43-year-old Oakland Power Plant now located at Jack London Square. The package of upgrades is called the “Oakland Clean Energy Initiative” (Oakland Initiative) and has four components.

The first component is the location-specific reliability services provided by the energy storage systems located at the Oakland L and Oakland C substations. PG&E’s application refers to these services as “Locational Area Reliability Services,” or “LARS” agreements (Agreements). Approval of the Agreements is within the jurisdiction of the Commission. This decision authorizes these Agreements and procurement of the reliability services they will provide over the 10-year period of their terms.

The other three components of the Oakland Initiative are under the jurisdiction of the California Independent System Operator (CAISO) and the Federal Energy Regulatory Commission (FERC). They consist of transformer and substation upgrades, transmission line upgrades, and, if needed, emergency load transfers by Alameda Municipal Power between two Oakland substations. When the CAISO first approved the Oakland Initiative in August 2017 it urged PG&E to seek Commission approval for the two Agreements the Commission authorizes herein.

The emergency load transfer component of the Oakland Initiative is contested by Alameda Municipal Power. Alameda Municipal Power asserts that

¹ PGE-3 at 2-4.

the Oakland Initiative will increase the frequency with which PG&E implements emergency load transfers and that it has no obligation to participate in the Oakland Initiative under its existing Operational Agreement with PG&E. On August 7, 2020, Alameda Municipal Power filed a petition with the FERC requesting that FERC adjudicate this dispute.² We discuss this issue in section 4.

The Agreements consist of 43.25 MW and 173 MWh of locational reliability services provided by two in-front-of-the-meter lithium-ion battery storage systems, each with a four-hour duration. The first Agreement is between PG&E and Vistra Corp. and Dynegy Marketing and Trade, LLC (Vistra) for a 36.25 MW energy storage project located at the site of the existing Oakland Power Plant and electrically interconnected to the Oakland C substation. The second Agreement is between PG&E and Tierra Robles Energy Storage, LLC (esVolta) for a seven MW energy storage project electrically interconnected to the Oakland L substation. PG&E's application states that the two competitively selected projects were the least cost, best fit projects meeting the CAISO-identified reliability need criteria.³ The Agreements state that the energy storage resources must be online by February 1, 2022.⁴

The two Agreements require the resources be CAISO market "participating generators," available for CAISO economic dispatch and available for exceptional dispatch in response to single and multiple event emergencies as directed by CAISO instructions, and interconnected to Oakland substations C and L. The Agreements are unique in that they do not provide any market

² Alameda Municipal Power Opening Brief at 4.

³ PGE-1 at 3-15.

⁴ PG&E Opening Brief at 26.

products to PG&E but instead require the resources be available at the specified locations when necessary.

East Bay Community Energy (East Bay) has negotiated parallel contracts with Vistra and esVolta to purchase the resource adequacy capacity and energy produced from the same storage resources. Because it is a Community Choice Aggregator, Commission approval of the East Bay resource adequacy contracts with Vistra and esVolta is not required. However, East Bay's contracts with Vistra and esVolta are structured so as to become effective upon Commission approval of PG&E's Agreements.⁵

PG&E's application requests authority to recover \$21.3 million for the two Agreements, approximately \$2.1 million annually, applying Cost Allocation Mechanism ratemaking treatment, which distributes costs to PG&E's bundled and unbundled customers.⁶ PG&E proposes to collect the funds via a New System Generation Charge and record costs in two new separate subaccounts that it will establish in its New System Generation Balancing Account.⁷

1.1. Project Background

Oakland area reliability needs are currently met by a combination of transmission lines, Alameda Municipal Power "peaker" plants and the 43-year old Oakland Power Plant.⁸ The Oakland Initiative stems from work by the CAISO and PG&E starting in 2015 to identify an alternative to the Oakland Power Plant, which provides transmission reliability services via a

⁵ PGE-2 at 2-2.

⁶ PGE-1 at 1-12.

⁷ PG&E Application at 9.

⁸ PGE-1 at 2-1.

Reliability-Must-Run contract with the CAISO. The Oakland Power Plant is located at Jack London Square in a dense urban area with high air pollution levels and relies on jet-fuel to operate. Provision of reliability services through the four Oakland Initiative components – including location-specific reliability services from the two energy storage systems – will allow for a phased retirement of the plant.⁹

During the 2015-2016 and 2016-2017 CAISO Transmission Planning Processes, the CAISO started assessing alternatives to address the aging Oakland Power Plant. The subsequently approved CAISO Transmission Plans for 2015 and 2016 identified a solution to replace the plant that included transmission upgrades and procurement of demand response, energy efficiency and energy storage (collectively “preferred resources”).¹⁰

In 2017 PG&E proposed the Oakland Initiative as a solution to retire the Oakland Power Plant.¹¹ The 2017-2018 CAISO Transmission Plan approved the Oakland Initiative. CAISO’s 2017 approval included a minimum of 10 MW of a four-hour utility-owned in front of the meter energy storage facility, solely dedicated as a transmission asset, meaning that the asset could not participate in the CAISO market or be third-party owned. CAISO also recommended an additional 10 – 24 MW of third-party competitively procured preferred resources sited within the Oakland C and Oakland L 115 kilovolt (kV) substations.

In the 2018-2019 CAISO Transmission Plan, the CAISO revised its requirements for the Oakland Initiative. The revised CAISO requirements eliminated the earlier requirement that energy storage procured for the Oakland

⁹ Vistra Opening Brief at 5, November 12, 2020.

¹⁰ CAISO 2016-2017 Transmission Plan at 90.

¹¹ PGE-1 at 1-7.

Initiative must be a transmission asset. This opened the door for the storage to be third-party owned and participate in the CAISO market, thus allowing for the “most cost-effective combination of resources.”¹² In its 2018-2019 plan, the CAISO also clarified that the Oakland Initiative must include a minimum of seven MW and 28 MWh of energy storage located at or interconnected to the Oakland L substation.¹³ The CAISO’s 2019-2020 Transmission Plan increased the Oakland Initiative need to 36 MW and 173 MWh for 2024 and identified storage as the preferred resource.¹⁴

Table 1 summarizes the Oakland Initiative components as approved by the CAISO in 2019 and as contained in PG&E’s application.

¹² PGE-1 at 2-5, citing the CAISO 2018-2019 Transmission Plan, at 123.

¹³ *Ibid.* The CAISO saw this as necessary to address a constraint identified in the case of a transmission line outage reducing the delivery of energy from Oakland C substation to Oakland L substation.

¹⁴ PGE-1 at 2-5.

Table 1: PG&E Application and CAISO-Approved Oakland Initiative

Project Components (CAISO Approved, 2019)	Project Components (As contained in PG&E Application)
1) Upgrades to Moraga 230/115 kV Transformer Bank 3 and upgrades at Moraga 115 kV and Oakland X 115 kV substation buses	No change
(2) Transmission line rerates on Moraga-Claremont 115 kV Lines #1 and #2 underway	No change
3) Competitive procurement of about 36 MW and 173 MWh of preferred resources sited within the Oakland C and Oakland L 115 kV substations, including seven MW and 28 MWh of energy storage at Oakland L and 29 MW and 145 MWh storage at Oakland C	Competitive procurement of 43.25 MW and 173 MWh of preferred resources sited within the Oakland C and Oakland L 115 kV substation pockets, including seven MW and 28 MWh of energy storage at Oakland L and 36.25 MW and 145 MWh storage at Oakland C
4) Continued reliance on transferring Alameda Municipal Power (Alameda Municipal Power) load from Cartwright (north) to Jenney (south) during peak loading conditions and under various contingency events.	No change.

1.2. Procedural History

PG&E filed its application and served testimony on April 15, 2020.

Seven parties filed protests and three parties filed responses on May 18, 2020.

PG&E filed a reply to party protests on May 28, 2020.¹⁵ Vistra and the California Large Energy Consumers Association filed motions for party status on June 16, 2020 which the assigned Administrative Law Judge (ALJ) granted on June 17, 2020.

¹⁵ Northern California Power Agency filed a protest on May 15, 2020 and Cal Advocates, Alliance for Retail Energy Markets and Direct Access Customer Coalition, Alameda Municipal Power, the California Efficiency+ Demand Council, the Center for Energy Efficiency and Renewable Technologies, and Shell Energy North America (Shell Energy) filed protests on May 18, 2020. East Bay, the California Energy Storage Alliance and Sierra Club filed responses to the application on May 18, 2020.

A prehearing conference (PHC) was held on June 18, 2020 to discuss the issues of law and fact, determine the need for a hearing, set the schedule for resolving the matter, and address other matters as necessary. PG&E submitted supplemental testimony on June 18, 2020. On June 23, 2020, Alameda Municipal Power filed a post-Prehearing Conference statement.

On July 14, 2020 an Assigned Commissioner's Scoping Memo and Ruling (Scoping Memo) was issued. CAISO filed a motion for party status on September 2, 2020, which the assigned ALJ granted on September 3, 2020. On August 17, five parties served opening testimony. On August 28, 2020, PG&E and two other parties served rebuttal testimony. On September 1 and 8, 2020, PG&E convened two settlement conferences as required in the Scoping Memo.

On September 14, 2020 PG&E served a settlement conference summary indicating that a settlement agreement had not been reached and was not anticipated. On October 6, 2020, the assigned ALJ convened a Status Conference. On October 12, 2020, Alameda Municipal Power and the Northern California Power Agency filed motions to strike two exhibits proposed by PG&E. On October 14, 2020, PG&E filed a response to these motions. On October 15, 2020, the assigned ALJ granted Alameda Municipal Power and the Northern California Power Agency's motions to exclude PG&E's proposed exhibits as evidence. On October 16, 2020, the assigned ALJ canceled evidentiary hearings because no party had requested them. On November 6, 2020, the assigned ALJ issued a ruling entering exhibits into evidence.

On November 12, 2020 parties filed opening briefs. On November 18, 2020, PG&E served an amended, confidential version of its esVolta Agreement to the assigned ALJ and the Public Advocates Office. On

December 3, 2020, the assigned ALJ entered the amended contract into evidence. On December 4, 2020, parties filed reply briefs.

1.3. Parties' General Responses

Party responses to PG&E's application can be divided into five groups. The first group, composed of the CAISO, East Bay, California Energy Storage Alliance and Vistra, strongly support the application and urge the Commission to speedily adopt it without modifications. The second group, composed of Alameda Municipal Power and the Northern California Power Agency, oppose PG&E's application on the grounds that PG&E has not secured authorization to implement load transfers impacting Alameda Municipal Power as part of the Oakland Initiative. Otherwise, these two parties do not oppose the application.

The third group, composed of the Alliance for Retail Energy Markets and Direct Access Customer Coalition, the California Large Energy Consumers Association, and Shell Energy generally support the application as meeting the reliability needs identified by the CAISO but argue that PG&E's request for cost recovery using the Cost Allocation Mechanism is inappropriate and should be denied. The California Large Energy Consumers Association also questions whether the Agreements should require the batteries maintain a state of charge to be available during a contingency and will allow for the complete closure of the Oakland Power Plant. This group generally supports consideration of transmission access charge cost recovery for the Oakland Initiative energy storage resources.

A fourth group, the Public Advocates Office, requests that the Commission consider whether or not the Cost Allocation Mechanism is the appropriate cost recovery mechanism for the Oakland Initiative energy storage resources and recommends that cost recovery for the Agreements be limited to the months in

which the resources have resource adequacy contracts.¹⁶ The Public Advocates Office also focuses on procedural issues such as whether PG&E's application must adhere to energy storage policy requirements adopted in Decision (D.) 16-09-007 and D.18-01-003, whether PG&E has taken the appropriate approach to determining the cost-effectiveness of the Agreements, and whether the Agreements are consistent with state policies guiding greenhouse gas emission reduction targets.

A fifth group, the Center for Energy Efficiency and Renewable Technologies, opposes the application on the grounds that the proposed Oakland Initiative capacity will not meet increased demand in the Oakland subarea after 2024 if several large developments now in the planning stages are later approved.

2. Issues Before the Commission

Because of the complex nature of PG&E's application, the Scoping Memo identified a large number of issues that the Commission should consider when reviewing PG&E's application.¹⁷ We discuss these issues in four general groups in the following sections.

2.1. Do the Agreements — and the Oakland Initiative — Address Reliability Needs in the Oakland Subarea?

The first set of Scoping Memo questions asked whether the proposed Agreements — and the Oakland Initiative more broadly — meet the subarea reliability need identified by the CAISO in the areas served by the Oakland C

¹⁶ Public Advocates Office Reply Brief at 1- 4.

¹⁷ Assigned Commissioner's Scoping Memo and Ruling, July 14, 2020.

and Oakland L substations and, if they do so, for how long? Sections 3 through 3.2 discuss these questions.

The Scoping Memo also asked if the 10-year contract lengths of the Agreements are supported by need beyond 2024. Relatedly, it asked if the Agreements are a bridge to or a component of a strategy to meet long-term reliability needs, and if this a reasonable approach? We discuss these questions in sections 3.3 and 3.4. Section 3.5 presents the CAISO's assessment and addresses the issue of whether the Agreements provide system benefits. We discuss the question of whether the Agreements should be amended to require them to maintain a state of charge in section 3.7.

Related to the question of ensuring that the Oakland Initiative adequately addresses the CAISO-identified reliability need in the Oakland subarea, the Scoping Memo asked:

- a. Does or will the PG&E and Alameda Municipal Power Operating Agreement provide PG&E the rights to undertake the load transfers contemplated by PG&E as part of its application; and,
- b. Is Alameda Municipal Power load transfer necessary for the Oakland Initiative solution to address the identified reliability need? If so, how much load transfer is necessary and what are the peak loading conditions and various contingency events that could trigger Oakland Initiative reliance on Alameda Municipal Power load transfer?¹⁸

¹⁸ Additional sub-questions in the Scoping Memo are: Has the CAISO evaluated and approved the proposed transferring of Alameda Municipal Power load between the identified substations for the Oakland Initiative project? How might the absence of the contemplated Alameda Municipal Power load shift capability affect the benefits ratepayers receive from the proposed Agreements? Will there be additional costs to PG&E to secure a load transfer obligation from Alameda Municipal Power? If so, what are these costs, and will they accrue to PG&E ratepayers?

We review questions regarding the Alameda Municipal Power and PG&E dispute relating to provision of load transfer in section 4.

2.2. Are the Agreements' Costs Reasonable?

The second set of issues identified in the Scoping Memo are whether the costs of the PG&E Agreements are reasonable, whether they are more cost-effective than other available solutions, and whether the Commission should authorize PG&E to recover the costs. Related to this, the Scoping Memo asked a number of sub-questions, such as:

- a. To determine the comprehensive cost efficiency of the proposed solution to the Oakland Power Plant retirement, should the cost of East Bay resource adequacy contracts associated with the Oakland Initiative energy storage projects be considered alongside the cost of the Agreements;
- b. How should the Agreements be valued, and do they provide reasonable value, commensurate with their cost, to PG&E and its ratepayers?¹⁹

We address these questions in section 5.

2.3. Do the Agreements Comply with Statute and Commission Decisions?

A third set of Scoping Memo issues stem from consideration of whether the Agreements are required to comply with various statutes and Commission decisions and, if they are, do they?

We discuss these issues in section 6 of this decision. In section 6.1 we focus on Public Utility (Pub. Util.) Code Sections 2835 and 2836.6 addressing energy

¹⁹ Additional sub-questions in this area included: Will the Agreements eliminate all ratepayer costs associated with the current Reliability-Must-Run contract, considering the cost of any necessary resource adequacy capacity replacement? Should any PG&E current or projected resource adequacy costs in the greater Bay Area over the 10-year Agreement contract period be considered as part of Reliability-Must-Run replacement costs?

storage contracts, and D.18-01-003 and D.16-09-007 regarding energy storage procurement requirements. Section 6.2 focuses on the question of whether PG&E's proposed cost recovery mechanism, the Cost Allocation Mechanism, is consistent with Pub. Util. Code Section 365.1(c), and whether the Commission should authorize PG&E to recover the procurement costs associated with the Oakland Initiative preferred resources in rates through the Cost Allocation Mechanism, or through some other mechanism.

2.4. Other Review Issues

Finally, in section 7, we discuss other questions identified in the Scoping Memo, including:

- a. Are the Agreements consistent with state greenhouse gas policies? Will the Oakland Initiative have a positive impact on greenhouse gas and criteria pollutant emissions?
- b. Was PG&E's request for offer selection process properly and reasonably conducted?
- c. Have potential safety risks been adequately reduced, managed, and addressed?
- d. Is the project timeline provided by PG&E feasible?

3. The Agreements – and the Oakland Initiative – Will Meet Oakland Subarea Reliability Needs Until 2024

Scoping Memo issue 2 asked whether the portfolio of Oakland Initiative projects proposed by PG&E will meet the subarea reliability need in the areas served by the Oakland C and Oakland L substations and, if so, for how long?

Our review of issues and party testimony, evidence, and briefs finds that the Oakland Initiative, including the two PG&E Agreements, will meet Oakland reliability needs until 2024. The Oakland Initiative facilitates the retirement of the Oakland Power Plant, which is currently designated as a Reliability-Must-Run resource. Our findings align with the CAISO's determination that the

portfolio of projects proposed in PG&E's Oakland Initiative will meet the Oakland subarea reliability needs until 2024.²⁰

This section first describes the single and multiple event contingencies evaluated to establish the reliability need. Next, we assess whether PG&E's application adequately describes how it will meet that need and conclude that the Oakland Initiative will meet the identified reliability need through 2024. Next, we examine the period after 2024. We determine that there is reliability need in the subarea after 2024 that justifies the Agreements' 10-year terms. We also determine that the Agreements are a reasonable bridge to and component of a longer-term strategy to meet the subarea reliability needs. Finally, we review the CAISO's determination that the Oakland Initiative meets the subarea reliability need and determine that the Oakland Initiative meets both system and subarea reliability needs.

3.1. Single- and Multiple-Event Contingencies Evaluated

The Oakland Initiative is designed to meet both single and multiple event emergencies or "contingencies," which can occur in the Oakland subarea without local generation.²¹ In the Oakland subarea, single event contingencies are driven by breaker or bus outages at the Moraga and Oakland X substations. Multiple event contingencies are driven by loss of the two "C-X" 115 kV cables or loss of one of the C-X 115 kV cables combined with loss of a "D-L" 115 kV cable.²²

Possible multiple event contingencies in the Oakland subarea that any reliability solution must address include containing the loss of two or

²⁰ CAISO Opening Brief at 3.

²¹ By "single event emergency," we mean an N-1 or "P2" contingency event. By "multiple event emergency," we mean an N-1-1 or "P6" contingency event.

²² PGE-1 at 1-2.

more (non-generator unit) elements, with a 30-minute system adjustment allowed between these.²³ The system adjustment must ensure that if a second contingency occurs, no overloading results.²⁴ Multiple event summer contingencies could require Alameda Municipal Power load transfer or another solution.

3.2. Description of Reliability Need and Capacity

PG&E states the Oakland subarea load serving capability prior to implementation of the Oakland Initiative is 128 MW. After implementing Moraga substation upgrades (component 1 of the Oakland Initiative), PG&E reports that the load serving capability increases to 175.9 MW for single event contingencies and 157 MW during multiple event contingencies.²⁵ According to PG&E, the full reliability capacity of the Oakland Initiative with the Agreement resources online if called during a multiple contingency event is as much as 223.25 MW.²⁶ Table 2 provides an estimate of the reliability capacity provided by each Oakland Initiative component.²⁷

²³ AMP-1 at 4.

²⁴ CAISO 2017-2018 Transmission Plan. March 22, 2018 at 124.

²⁵ PGE-3 at 2-3 through 2-5.

²⁶ PGE-3 at 2-4 and at 2-18 through 2-19.

²⁷ Estimates derived from PGE-3 at 2-4 and at 2-18 through 2-19.

Table 2: Estimated Oakland Initiative Reliability Capacity

Oakland Initiative Project Component	MW Provided in Multiple Event Emergency	Percentage of Total Reliability Capacity Provided in Multiple Event Emergency
2) Transmission Line Upgrades ²⁸	157	72 - 70
3) Oakland C and L Energy Storage Agreements	36 - 43.25	17 - 20
4) Alameda Municipal Power Load Transfer (maximum)	23	11 - 10
Total after Load Transfer	216 - 223.25	100

If a single event contingency occurs in the Moraga area, PG&E reports that the Agreement resources would typically be dispatched pre-contingency to mitigate any additional potential overloads that could lead to a multiple event contingency. For a single contingency event, the highest expected need for the area is 36 MW and the Agreements provide 43.25 MW. The highest energy need during a single event energy contingency is estimated at 173 MWh, which the Agreements can also meet.²⁹

The CAISO's 2021 Local Capacity Technical Analysis determined the Oakland subarea local capacity requirement in 2021 to be 99 MW.³⁰ This determination allows for the retirement of the 55 MW "Unit 2" of the Oakland Power Plant. In September 2020, the CAISO did not renew Unit 2's Reliability-Must-Run contract for 2021 and the unit will retire at the end of December 2020.³¹

²⁸ Transmission upgrades include a combination of C-X#2, C-X#3, and D-L#1 115 kV cables.

²⁹ PGE-3 at 2-4.

³⁰ CAISO Board Memo, Decision on Conditional Approval to Extend Existing Reliability Must-Run Contracts for 2021 at 1-2

³¹ Vista Opening Brief at 6.

Also in September 2020, the CAISO renewed the annual Reliability-Must-Run contract for 110 MWs from “Unit 1” and “Unit 3” of the Oakland Power Plant through December 31, 2021.

After the implementation of transmission upgrades as summarized in Table 1, PG&E estimates the 2022 reliability need for the Oakland subarea as follows:³²

Table 3: Summary of Reliability Need for the Oakland Subarea for 2022

	Summer Single Event Contingency	Summer Multiple Event Contingency	Winter Single Event Contingency	Winter Multiple Event Contingency
Peak	19.2 MW	38.1 MW	5.6 MW	18 MW
Duration	10 hrs	15 hrs	1 hrs	9 hrs
MWh	120 MWh	352 MWh	5.6 MWh	70 MWh

PG&E projects through its 2022 summer peak forecast that if loading greater than 157 MW occurs in conjunction with an earlier single event contingency, Alameda Municipal Power load transfer would occur, reducing the multiple event contingency energy need to about 173 MWh, which the Agreement resources can meet.³³ Based on this, PG&E concludes that the Oakland Initiative and Agreements meet the identified Oakland subarea reliability need through 2024.

³² CLECA-1, Attachment P at slide 21 (“PG&E’s 2017 Request Window Proposals CAISO 2017-2018 Transmission Planning Process”). Summer Peak Load Need is from 7 am to 8 pm; Winter Peak Load Need has two smaller peaks (morning and later afternoon).

³³ PGE-3 at 2-5.

3.2.1. Discussion

PG&E's Opening and Rebuttal testimony credibly describes PG&E's Oakland subarea power flow analysis for single and multiple event contingencies and its assessment of the impact and necessary responses.³⁴

Multiple event contingencies in the summer are rare. For example, the 2020 summer heat wave events did not exceed a 140 MW need in the Oakland area and the Oakland Power Plant was not called during this event.³⁵ Had the Oakland Initiative been in place, their resources would also not have been needed for local reliability.³⁶ PG&E reports the probability of single event contingencies at .00013 percent, or once every 85 years, and multiple event contingencies are even more rare.³⁷

Further, based on its analysis, the CAISO determined in its 2019-2020 Transmission Plan that the Oakland Initiative is expected to serve the forecasted Oakland subarea reliability need until at least 2024.³⁸

We conclude that the Oakland Initiative, including the two PG&E Agreements, is adequately designed to address likely single and multiple contingency events in the Oakland subarea until 2024.

³⁴ PGE-1 at 2-12 to 2-13; PGE-3 at 2-3.

³⁵ PGE-4; PG&E notes that, had the Agreement resources been in place, they could have been dispatched for *system* reliability during the 2020 summer heat wave.

³⁶ *Ibid.*

³⁷ PGE-3 at 2-19; *See also* PGE-4, where PG&E explains that the Summer 2020 (August and September) heat wave need for the North Oakland Area did not reach 1-in-10 summer peak load conditions and load there did not reach single or multiple event emergency critical loading levels. The peak load need during the Summer 2020 August and September heat wave was 140 W. Oakland Initiative energy storage resources would not have been committed or discharged for local area reliability purposes if they had been in place during these events and there was no need for the load transfer even after an N-1 event.

³⁸ PGE-1 at 2-5 through 2-6, citing the CAISO 2019-2020 Transmission Plan at 60.

3.3. Reliability Need Beyond 2024

Scoping Memo issue 2(b) asked if the Agreements' 10-year contract lengths are supported by need beyond 2024. Based on review of testimony and briefs, we find that the Agreements' 10-year contract terms are supported by need beyond 2024.

PG&E's analysis for the CAISO states that the Oakland Initiative is needed to ensure sustained reliability in the Oakland subarea but even with it, "the solution may not be sufficient to mitigate the forecasted need on a long-term basis."³⁹ PG&E states that Oakland Initiative is the only solution allowing retirement of the Oakland Power Plant in the short-to-medium-term that provides time until a longer-term transmission solution can be approved and built.⁴⁰ To address some of this longer term need, PG&E states that it proposed a "North Oakland Area Reinforcement Project" that would include a new 115 kV line from Oakland X substation to Oakland L substation in the 2019-2020 CAISO Transmission Planning process.⁴¹

Table 4 summarizes the actual and projected reliability need through 2030 as reported by CAISO and PG&E as compared to the reliability services projected for the Oakland Initiative.⁴²

³⁹ PGE-1 at 2-6.

⁴⁰ *Ibid.*

⁴¹ PG&E Opening Brief at 13.

⁴² PGE-5. Other information derived from Table 2.

Table 4. Summary of Projected Reliability Need and Capability Over Time

Year 2019	Oakland Subarea Load (MW)	Oakland Power Plant (MW)	Oakland Initiative (MW)
2019	176.5	165	157
2020	164.4	165	157
2021		110	157
2022		0	216 - 223.25
2024	186.6	0	216 - 223.25
2025	176.2	0	216 - 223.25
2030	189.2	0	216 - 223.25

Table 4 and PG&E's testimony indicates that there is reliability need after 2024 in the Oakland subarea that the Oakland Initiative will help address. Because load forecasts are always changing, we cannot definitively determine the exact length of time that the Oakland Initiative meets Oakland subarea reliability needs after 2024. As noted by the CAISO, "as with any forecast, actual conditions may, and likely, will vary from the forecast amount."⁴³ However, we can determine that there is need beyond 2024 that the Agreements help address.

3.4. Strategy to Address Longer-Term Reliability Need

Scoping Memo issue 2(b) asked if the Agreements serve as a bridge to or a component of a strategy to meet long-term reliability needs and, if so, is this a reasonable approach? Our review above indicates that additional reliability resources beyond those provided by the Oakland Initiative will be needed after 2024. This section concludes that the Agreements serve both as a bridge to and a component of a strategy to meet long-term reliability needs in the area.

When asked by the CAISO to consider alternatives to the Oakland Power Plant in 2017, PG&E concluded that a transmission line alternative would take between seven to 10 years to develop and construct and that opposition to

⁴³ CAISO Reply Brief at 5.

gas-powered generation in the area would be significant.⁴⁴ The Oakland Initiative, including the Agreements, is available much more quickly.

Reflecting the need for additional reliability capability in the area after 2024, PG&E proposed the North Oakland Area Reinforcement Project in 2019, as mentioned above, along with other improvements.⁴⁵ Additionally, PG&E testifies that an “Eastshore Oakland J Reconductoring” project will be placed into service in April 2021. The Eastshore Oakland J Reconductoring project will increase reliability in the area, including for Alameda Municipal Power.⁴⁶

As indicated in Table 4, PG&E estimates that the 2030 summer peak load need to withstand a multiple event contingency will be 189.2 MW.⁴⁷ For this reason, the CAISO and PG&E are monitoring the Oakland subarea but have not determined that additional procurement is needed at this time.⁴⁸ If it is determined that additional procurement is necessary, the CAISO and PG&E would pursue the least cost, best fit solution. One solution that could be assessed, if necessary, is amending the Agreements to increase the MW capacity.⁴⁹

We conclude that the Agreements’ 10-year contract lengths are supported by need beyond 2024 and the Agreements serve as a reasonable bridge to and component of a longer-term strategy to address reliability need in the area.

⁴⁴ PGE-1 at 2-4.

⁴⁵ PGE-2, at 1-5, citing PG&E’s 2019 Request Window Proposals CAISO 2019-2020 TPP September 26, 2019, slide 39.

⁴⁶ *Ibid.*

⁴⁷ PGE-5.

⁴⁸ PGE-1 at 2-6.

⁴⁹ PGE-1 at 3-18. The Agreements currently allow the sellers to oversize their projects to provide service from a portion of the project to PG&E. The sellers are also free to build additional capacity to sell to other parties in the future.

3.5. CAISO Determinations Regarding Reliability Need

Supporting our independent finding that the Oakland Initiative, including the two PG&E Agreements, will meet Oakland subarea reliability needs until 2024 is that the CAISO has also confirmed this finding through on-going reliability need assessments from 2017 to present. As mentioned, the CAISO first approved the Oakland Initiative in its 2017-2018 Transmission Plan. It again endorsed the Oakland Initiative, with some modifications, in its 2018-2019 and 2019-2020 Transmission Plans.⁵⁰ As mentioned, the CAISO's 2019-2020 Transmission Plan found that the Oakland Initiative serves the forecasted Oakland subarea reliability need until at least 2024.⁵¹ Additionally, the reliability assessment presented during the CAISO's 2020-2021 Transmission Planning Process determined that the Oakland Initiative will mitigate summer overloads.⁵²

The CAISO sent a letter of support for PG&E's application and has joined this proceeding to recommend approval of the application.⁵³ The CAISO states that the Agreements, "together with the substation upgrades identified in the CAISO transmission planning process, ... are adequate to meet the identified Oakland local area need and facilitate the retirement of the Oakland area [Reliability-Must-Run] resources."⁵⁴

The CAISO rebuts concerns from the Center for Energy Efficiency Renewable Technology that the Oakland Initiative will not provide resources

⁵⁰ PGE-1-Atch1-1, CAISO Letter of Support.

⁵¹ PGE-1 at page 2-6, citing CAISO 2019-2020 Transmission Plan at 106.

⁵² CAISO 2020-21 Transmission Planning Process Stakeholder Meeting September 22-23, 2020, Greater Bay Area Preliminary Assessment Results, Slide 7.

⁵³ PGE-1, Attachment 1.

⁵⁴ CAISO Opening Brief at 3.

sufficient to meet the local subarea needs. The CASIO states that its “transmission planning process analysis conclusively demonstrated the [Oakland Initiative] will meet Oakland subarea needs through 2024 based on the California Energy Commission’s load forecast.”⁵⁵

Additionally, the CAISO observes that the Oakland Power Plant does not meet the identified need for the Oakland L substation identified by the CAISO in its 2010-2020 Transmission Plan.⁵⁶

3.6. The Oakland Initiative Meets System and Subarea Reliability Needs

Scoping Memo issue 2(d) asked, “Are the energy storage resources in the Oakland Initiative portfolio necessary to ensure system reliability and not just local or subarea reliability?”

PG&E states that the Agreements provide broad system benefits to PG&E retail customers through meeting a transmission planning need to provide local reliability.⁵⁷ PG&E adds that the Agreements ensure local reliability to satisfy the CAISO’s transmission planning requirements and the energy storage resources underlying them contribute to resource adequacy requirements.

We find that the energy storage resource services procured through the Agreements meet system and local subarea reliability needs.

3.7. The Agreements Need Not be Amended to Require Maintenance of a State of Charge

The California Large Energy Consumers Association recommends that the Commission require PG&E to modify the Agreements to require the storage

⁵⁵ CAISO Reply Brief at 2.

⁵⁶ PGE-1, Chapter 1, Attachment 1 at 1-1 through 1-2.

⁵⁷ PG&E Opening Brief; PGE-3 at 2-22.

resources to maintain a sufficient charge for each project to meet a single or multiple event contingency.⁵⁸

We disagree with the California Large Energy Consumers that PG&E must amend the Agreements to require the storage resources maintain a state of charge to be available in case of a contingency. The Agreements ensure that the energy storage resources are built, maintained and operated as CAISO market participating generators capable of responding to a dispatch instruction or operating order.⁵⁹ As explained by the California Energy Storage Alliance, “contractual or operational requirements to have a minimum state of charge is not required to ensure delivery of reliability services, as it is neither required for [resource adequacy] resources to deliver their capacity in all hours of the day, particularly during the availability assessment hours.”⁶⁰

The Agreements’ existing requirements are sufficient to ensure that the resources will be available as needed during single or multiple event emergencies. The emergencies that the Oakland Initiative is designed to respond to involve high loading conditions, which occur during the day during heat waves. As CAISO explains, it will use existing day-ahead market tools including an assessment of forecast local load conditions and the possibility of and recovery from contingency conditions to determine when it may need to dispatch the energy storage resources. “CAISO systems can also schedule storage resources to charge and retain that energy to ensure that if a contingency does occur, the CAISO can maintain local reliability.”⁶¹ CAISO states further

⁵⁸ California Large Energy Consumers Association Opening Brief at 3.

⁵⁹ PG&E Opening Brief at 8.

⁶⁰ CESA-1 at 3.

⁶¹ CAISO Opening Brief at 4.

that, it does not need “perfect foresight,” as alleged by the California Large Energy Consumers Association, to appropriately dispatch the resources:

Storage has unique use-limitations, but the CAISO will use existing market tools to dispatch storage resources to meet local capacity needs without the need for “perfect foresight” or “perfect pre-dispatch.” Current tools include the assessment of forecast local load conditions and the possibility of and recovery from contingency conditions.⁶²

Thus, we reject the California Large Energy Consumers Association recommendation that we require PG&E to modify the Agreements to explicitly require the energy storage resources maintain a sufficient state of charge to respond to contingency conditions. This is already met as part of the Agreements’ requirement that the energy resources bid into the CAISO market as participating generation resources and under CAISO tariffs.

4. The Alameda Municipal Power and PG&E Load Transfer Dispute Will Not Undermine Delivery of Reliability Services in Oakland

Transfer of Alameda Municipal Power load during multiple event contingencies is one of four Oakland Initiative components. If Alameda Municipal Power load transfer is not available as anticipated, the Oakland Initiative may not be able to fully meet the projected reliability need described in PG&E’s application. If the Oakland Initiative does not meet the reliability need as anticipated, the benefits, or “value,” of the Oakland initiative to ratepayers may be reduced.

Reflecting the importance of the availability of the load transfer component to the value of the Agreements to ratepayers, Scoping Memo

⁶² *Id* at 6. See also CLECA Opening Brief at 7.

question 2(c) asked if the PG&E and Alameda Municipal Power Operating Agreement does or will provide PG&E the rights to undertake the load transfers contemplated by PG&E as part of its application. Scoping Memo questions 2(c)(i) through 2(c)(v) asked a number of related sub-questions.

After carefully reviewing the record, we conclude that the dispute between Alameda Municipal Power and PG&E regarding the load transfer services envisioned in the Oakland Initiative will be resolved shortly and is not a reason for this Commission to delay approval of PG&E's application. The dispute will be either resolved through a FERC ruling or further negotiations between PG&E and Alameda Municipal Power resulting in a modified Operating Agreement. Alternatively, if the FERC rules that the Operational Agreement does not ensure Alameda Municipal Power load transfer under the Oakland Initiative, the CAISO has stated it will identify an alternative mitigation that would be in addition to the Oakland Initiative in future Transmission Planning cycles.⁶³ Strengthening our confidence in an agreeable outcome is that Alameda Municipal Power and the Northern California Power Agency did not persuade us that the Oakland Initiative will increase the frequency of or unduly relies on Alameda Municipal Power load transfers or that it will degrade Alameda Municipal Power's reliability.

The following sections review Alameda Municipal Power's system characteristics, Alameda Municipal Power's claims regarding the Oakland Initiative and PG&E's replies, followed by our assessment.

⁶³ CAISO Opening Brief at 4.

4.1. Overview of Alameda Municipal Power Concerns

Alameda Municipal Power and the Northern California Power Agency urge the Commission to reject PG&E's application. Alameda Municipal Power asserts that PG&E's application erroneously assumes that Alameda Municipal Power must provide emergency load transfer services once the Oakland Initiative is implemented. Alameda Municipal Power asserts that PG&E included misleading statements in its application regarding PG&E and Alameda Municipal Power's Operating Agreement and that Alameda Municipal Power "has no obligation to participate in the Oakland Initiative."⁶⁴

Alameda Municipal Power testimony describes a number of contingency scenarios that it asserts the Oakland Initiative will not address; we discuss these below. Alameda Municipal Power also asserts that the Oakland Initiative will increase the circumstances in which PG&E would call on Alameda Municipal Power to transfer load and will adversely impact the reliability of its system. As mentioned, in August 2020, Alameda Municipal Power filed a petition with the FERC requesting that it resolve its dispute with PG&E on this matter.⁶⁵

Alameda Municipal Power's dispute with PG&E centers on four claims. First, that the Oakland Initiative will increase the frequency of emergency load transfers impacting Alameda Municipal Power. Second, that the Oakland Initiative unduly relies on Alameda Municipal Power load transfer capacity. Third, that the Oakland Initiative will degrade the reliability of Alameda Municipal Power's distribution system reliability. Fourth that the Operating

⁶⁴ Northern California Power Agency Protest to PG&E application at 3.

⁶⁵ Alameda Municipal Power Opening Brief at 4.

Agreement between PG&E and Alameda Municipal Power does not support the load transfers as contemplated by PG&E in the Oakland Initiative.⁶⁶

The next sections describe Alameda Municipal Power system characteristics and each of Alameda Municipal Power's concerns. We summarize PG&E's response to each of the concerns and then discuss them in turn.

4.2. Alameda Municipal Power System Characteristics

At present, Alameda Municipal Power has two radial lines supporting its load. The Cartwright and Jenney substations within the City of Alameda link Alameda Municipal Power and PG&E's distribution systems near Alameda Island.⁶⁷ Currently, if Alameda Municipal Power loses one of its radial lines it can rely on a 49 MW gas turbine plant located in the City of Alameda and/or transfer its load to PG&E, if feasible, to maintain all of its load or the majority of it.⁶⁸ If Alameda Municipal Power loses both its radial lines, it loses access to PG&E's generating resources as well as Alameda Municipal Power's procured resources outside of the Bay Area.⁶⁹ However, if this scenario were to happen, Alameda Municipal Power could still rely on the 49 MW gas turbine plant on Alameda Island to cover the majority of Alameda Municipal Power's load.

⁶⁶Alameda Municipal Power Opening Brief at 22.

⁶⁷ PG&E Oakland Reliability Proposal, CAISO Stakeholder Meeting, CAISO 2017/2018 Transmission Planning Process September 22, 2017, Existing Oakland 115 kV System, slide 3.

⁶⁸ PGE-1 at 2-9.

⁶⁹ PGE-1 at 2-9.

4.3. Alameda Municipal Power Has Not Demonstrated that the Oakland Initiative Will Increase the Frequency of Load Transfer

Alameda Municipal Power bases its opposition to PG&E's application on the fourth component of the Oakland Initiative which states the Oakland Initiative includes "continued reliance on transferring Alameda Municipal Power load from Cartwright to Jenny during peak loading conditions and under various contingency events."⁷⁰ Instead, Alameda Municipal Power argues that the establishment of the Oakland Initiative creates a "new" reliance on load transfers that is not covered by its existing Operating Agreement with PG&E. Alameda Municipal Power further asserts that this "new" reliance will increase the frequency of emergency load transfers under the Oakland Initiative.⁷¹

4.3.1. PG&E's Response

PG&E asserts that reliance on Alameda Municipal Power load transfer capacity to address emergency events is covered in the Operating Agreement between PG&E and Alameda Municipal Power and is therefore a "continued," not a new, reliance. PG&E notes that its power flow studies for the years 2024, 2025, and 2030 project that there are no multiple event contingencies that would necessitate Alameda Municipal Power emergency load transfers during "peak loading events."⁷² Further, PG&E states that its power flow studies project that it is highly unlikely that an Alameda Municipal Power load transfer would be needed to address multiple event contingencies prior to 2024.⁷³

⁷⁰ PGE-1 at 1-4.

⁷¹ Alameda Municipal Power, Opening Brief at page 23; AMP-1 at 18.

⁷² PGE-6.

⁷³ PGE-3 at 2-19. Transmission Planning is typically done on a 10-year horizon, and thus PG&E has not undertaken additional multiple event contingency planning studies for years beyond 2030.

PG&E states that the probability of single and multiple event contingencies that could require an emergency load transfer from Alameda Municipal Power is very low. To support this assertion, PG&E points to a 2017 study that estimated the likelihood of an Alameda Municipal Power load transfer need, after the Oakland Initiative is implemented, for single event contingencies at .00013 percent, or once every 85 years.⁷⁴ PG&E asserts that this probability estimate is current given the record of no unplanned outages in the last three years.⁷⁵ Multiple event contingencies that could require load transfer from Alameda Municipal Power are even more rare.

PG&E offers a description of the circumstances that would need to occur for PG&E to request an Alameda Municipal Power load transfer to address multiple contingencies:

According to the [Oakland Initiative] study presented to the CAISO, load switching would not occur unless: (1) there is, at the same time, both the occurrence of a binding N-1 contingency and extremely high load in the pocket (higher than the load during the extreme heat wave event that took place on September 1, 2017); and; (2) high loads continue after the occurrence of the initial binding N-1 contingency. In that very unlikely circumstance, load switching might be necessary to prepare for the possibility of a second N-1 contingency.⁷⁶

⁷⁴ PGE-3 at 2-19.

⁷⁵ *Ibid.*

⁷⁶ PG&E Opening Brief at 15. The terms “load transfer” and “load switching” are synonymous. In this instance the “N-1” event is a “bus tie breaker fault.” For more information refer to: Day2_PG&E-Presentation_2017-2018TransmissionPlanningProcess_PreliminaryReliabilityResults.pdf, slide 6.

Given the circumstances needed for a multiple event contingency and their probability of occurring, PG&E concludes that the Oakland Initiative “will not noticeably increase usage of load switching compared with current practice.”⁷⁷

4.3.2. Discussion

Our analysis concurs with the PG&E planning study, which does not foresee single or multiple event contingencies during which Alameda Municipal Power load transfers are needed during the three summer peak scenarios that were studied (2024, 2025, and 2030). Additionally, the CAISO has separately determined that the approved Oakland Initiative will serve the forecasted area need until at least 2024.⁷⁸ Beyond 2024, the CAISO identified one additional multiple event contingency scenario of note that involved the Oakland L substation and for which an additional need is identified. However, this need will be addressed by longer-term solutions already tentatively identified by both PG&E and CAISO and would not be impacted by any decision of the Oakland Initiative project. In addition, this need cannot be met with an Alameda Municipal Power load transfer.⁷⁹

Alameda Municipal Power criticized the 2017 study because PG&E did not explain its assumptions and methodology.⁸⁰ However, Alameda Municipal Power did not present evidence or persuade us that the Oakland Initiative will increase the frequency of PG&E emergency load transfer requests beyond the infinitesimal amount of once every 85 years.

⁷⁷ PG&E Opening Brief at 15.

⁷⁸ PGE-1 at 2-5; *see also* CAISO 2019-2022 Transmission Planning Study.

⁷⁹ PGE-6.

⁸⁰ Alameda Municipal Power Opening Brief at 19.

We find that the information provided by PG&E addresses the concerns raised by Alameda Municipal Power regarding increased frequency of load transfers. The assertion that the Oakland Initiative will increase the frequency of emergency load transfers is not substantiated.

4.4. Alameda Municipal Power Has Not Demonstrated that the Oakland Initiative Will Unduly Rely on Load Transfers for Contingency Events

Alameda Municipal Power observes that both the Agreements and Alameda Municipal Power load transfer capacity are needed to address multiple event contingencies in the Oakland subarea.⁸¹ Further, Alameda Municipal Power characterizes the Oakland Initiative load transfer component as contributing about 40 percent of the load reduction needed to mitigate certain multiple event contingency events that could occur in the Oakland subarea after the retirement of the Oakland Power Plant.⁸² Because of this, Alameda Municipal Power recommends that PG&E be required to increase the energy storage capacity in the subarea by the equivalent of Alameda Municipal Power's load, or about 23 MW, to decrease PG&E reliance on load transfer.

4.4.1. PG&E's Response

PG&E responds to these concerns by explaining that Oakland Initiative transmission upgrades have increased the amount of load that can be reliably served in the Oakland subarea and additional options exist to address Alameda Municipal Power load if needed. PG&E clarifies that if needed for a multiple event contingency, Alameda Municipal Power load transfer constitutes less than

⁸¹ AMP-1 at 7.

⁸² *Ibid.*

12 percent of load relief provided by the Oakland Initiative (*see* Table 2).⁸³ In addition, PG&E states that Alameda Municipal Power load can still be served reliably from PG&E's Oakland south system (*i.e.*, Jenney substation).⁸⁴

4.4.2. Discussion

PG&E's response clarifies that Alameda Municipal Power had assumed that load transfer would provide 40 percent of the Oakland Initiative reliability capacity in a multiple event contingency, whereas the actual amount it would provide would not exceed 12 percent. PG&E's clarification takes into account the additional capacity created through the transmission line rerates and upgrades and substation upgrades (components 1 and 2 of the Oakland Initiative; *see* Table 1). PG&E's response also notes that additional transmission lines are bringing new sources of power to the south of Oakland, which can reliably serve Alameda Municipal Power load.

We find that the information provided by PG&E addresses Alameda Municipal Power's claim that the Oakland Initiative will unduly rely on Alameda Municipal Power's load transfer capacity. Thus, we conclude Alameda Municipal Power's claim is not substantiated.

4.5. Alameda Municipal Power Has Not Demonstrated that the Oakland Initiative Degrades Its Reliability

Alameda Municipal Power asserts that the Oakland Initiative and related Agreements will degrade the reliability of its distribution system. After carefully reviewing the record, we find that this assertion is also not substantiated.

⁸³ PGE-3 at 2-17 through 2-18. *See* also PGE-3 at 2-14 where PG&E states it "can request a transfer of up to approximately 23 MW of AMP load normally served at Cartwright Substation (fed from Oakland C) to Jenney Substation (fed from Oakland J)."

⁸⁴ PGE-3 at 2-16.

Alameda Municipal Power raises concerns regarding overlapping outages affecting the “Oakland-J to Jenney line” and asserts that the Oakland Initiative will increase the severity of certain types of contingencies, potentially causing it to drop 100 percent of its load. Specifically, Alameda Municipal Power states:

For example, today if there were an outage of the C-X #3 115 kV cable, the Oakland Gas Turbines would be started to maintain the reliability of the North Oakland transmission system; no [Alameda Municipal Power] load transfer would be needed. If an overlapping outage to the Oakland-J to Jenney line occurs, [Alameda Municipal Power] would lose service to about 60 percent of its load that is served from Jenney substation. After [the Oakland Initiative], the same N-1-1 contingency would cause 100 percent of [Alameda Municipal Power’s] load to be dropped since all the [Alameda Municipal Power] load would have been transferred to Oakland-J to maintain reliability on the North Oakland transmission system. [Alameda Municipal Power] therefore reasonably believes that the [Oakland Initiative] could be expected to materially degrade reliability for [Alameda Municipal Power].⁸⁵

Because of these concerns, Alameda Municipal Power concludes that the Oakland Initiative could be expected to “materially degrade” the reliability of its distribution system.⁸⁶

4.5.1. PG&E’s Response

PG&E states that, currently, if a contingency causing a loss of a transmission element in the Oakland subarea were to occur under high peak load conditions and the Oakland Power Plant was unable to operate for whatever reason, PG&E would request emergency load transfer from Alameda Municipal Power. However, PG&E states that completion of components 1 and 2 of the

⁸⁵ Alameda Municipal Power Opening Brief at 20.

⁸⁶ *Ibid.*

Oakland Initiative, as well as the addition of the C-X #3 115 kV underground cable in 2010 make this unlikely now, and even less likely in the future.⁸⁷

PG&E states that the CAISO has evaluated Oakland subarea mitigation plans in the last three transmission planning cycles. Considering the Oakland Initiative transmission and substation upgrades and the East-Shore- Oakland J 115 kV transmission line, which brings a new source of power to south Oakland, the CAISO found that the system with these reinforcements assumed in place and the technical reliability studies continue to indicate that the area will meet all applicable North American Electric Reliability (NERC) and CAISO reliability standards during normal and emergency conditions without reliance on the Oakland Power Plant.⁸⁸ PG&E states that its 2017 study specifically calculated the probability of needing to initiate an Alameda Municipal Power load transfer during a single event contingency with the Oakland Initiative in place, based on the unplanned outage history of transmission cables in the area and the odds of exceeding high loading thresholds in the area. As mentioned earlier, PG&E states that this study found that the probability of this occurring is calculated at 0.00013 percent, or once every 85 years.⁸⁹

4.5.2. Discussion

Addressing Alameda Municipal Power's first concern regarding overloading that could occur due to loss of the C-X #3 line once the Oakland Power Plant is taken offline, we concur with PG&E that load concerns resulting from any outage in the northern Oakland pocket can be resolved from service through the Jenney (south) substation. It is our determination that service

⁸⁷ PGE-3 at 2-15.

⁸⁸ PGE-3 at 2-16.

⁸⁹ *Ibid.* The transmission cables assessed in PG&E's 2017 study are the C-X#2, C-X#3 and D-L#1.

through the Jenney substation can sufficiently address any load concerns that arise from a multiple event contingency condition. Additionally, PG&E has completed the first two Oakland Initiative components – upgrading the Moraga 115 kV and Oakland X Bus configurations and rerating the two Moraga-Claremont 115kV lines – and has released plans for additional projects that would further harden the transmission pathways needed for Jenney to provide load to northern Oakland.⁹⁰

Addressing Alameda Municipal Power’s second concern, regarding loss of load served by the Jenney substation, the CAISO determined that the placement of the energy storage system at Oakland substation C is the ideal location to support removal of the Oakland Power Plant from service. Further, any outage that would result in the loss of service as described by Alameda Municipal Power would occur regardless of the installation of the Oakland Initiative project.

As explained earlier, the probability of multiple contingencies events in the Oakland subarea is low. At present, any circumstance in which Alameda Municipal Power is required to transfer load leaves Alameda island on a single source; if an outage on that same source with all the load on it then occurs, Alameda Municipal Power would lose access to its generating resources off the island. If this circumstance were to occur, Alameda Municipal Power claims that it would experience “an island-wide blackout.”⁹¹ In other words, if Alameda Municipal Power were to lose both its 115 kV connections, it would lose access to

⁹⁰ PGE-1 at page 1-3; PGE-3 at 2-15 through 2-16. *See also* PG&E’s 2019 Request for Window Proposals, CAISO 2019-20 Transmission Planning Process, September 26, 2019, presentation slides 35-49.

⁹¹ Alameda Municipal Power Opening Brief at 17.

power resources available through the 115 kV system. However, this would be the case with either the Oakland Power Plant or the Oakland Initiative in place. In the event of this circumstance, Alameda Municipal Power would also be able to rely on the 49 MW gas turbine located on Alameda Island to carry the majority of its load.

Thus, we conclude that the described load losses will be addressed by the Oakland Initiative system upgrades and line rerates as identified by PG&E and CAISO and that the other circumstances are present with or without the Oakland Initiative.⁹² The claim that that Oakland Initiative will degrade the reliability of Alameda Municipal Power's distribution system is not substantiated.

4.6. Alameda Municipal Power and PG&E Load Transfer Dispute Will be Resolved or an Alternative Found

Alameda Municipal Power argues that its Operating Agreement with PG&E does not require it to transfer load during an emergency if this transfer capacity is used to respond to system planning reliability requirements.⁹³ Specifically, Alameda Municipal Power states that the Operating Agreement only addresses operating emergencies that "occur due to *unexpected system conditions* or contingencies outside the planning scenarios addressed by the NERC."⁹⁴

⁹² PG&E's 2019 Request for Window Proposals, CAISO 2019-20 Transmission Planning Process, September 26, 2019, presentation slides 35-49.

⁹³ AMP-1 at 7.

⁹⁴ Alameda Municipal Power Opening Brief at 11, emphasis in original.

In contrast, PG&E states that “the [Operational Agreement] currently in effect enables load switching.⁹⁵ No changes to the [Operational Agreement] are necessary to implement the Oakland Initiative project.”⁹⁶

4.6.1. Discussion

The Alameda Municipal Power and PG&E Operating Agreement is a FERC jurisdictional agreement that is not subject to reasonableness review or modification by the Commission. Therefore, this Commission does not rule on whether the existing Operating Agreement requires Alameda Municipal Power to provide the load transfer services envisioned in the Oakland Initiative.

However, our review indicates it is likely that the Alameda Municipal Power load transfer as envisioned in the Oakland Initiative is provided for in the existing Operating Agreement. The Operating Agreement states that “PG&E may encounter unusual circumstances or conditions on its system that can create loading or other problems. Alameda Municipal Power will cooperate with PG&E, including manual load dropping if so ordered by PG&E.”⁹⁷

Our analysis concurs with PG&E that Alameda Municipal Power load transfers to address system emergencies are accepted within CAISO transmission planning standards.⁹⁸ In section 4.3 we conclude that the frequency of emergency transfer of Alameda Municipal Power load is unlikely to increase when the Oakland Initiative is implemented. If it does, however, our analysis

⁹⁵ The terms “load switching” and “load transfer” are synonymous.

⁹⁶ PGE-2 at 1-2.

⁹⁷ PG&E-3 at 2-12; AMP Opening Brief at 12. (*See* Operating Agreement at 4.)

⁹⁸ *Id.*, citing NERC: Standard TPL-001-04- Transmission System Planning Performance Requirements at A3 and 2.7.1, bullet 2 and 5. CAISO states in its Opening Brief at 3 that it reviewed the Oakland Initiative against the NERC reliability standard and found it would meet Oakland’s local reliability needs consistent with NERC reliability standards.

here suggests that the existing Operational Agreement appears to provide for this.

In section 4.5 we conclude that the Oakland Initiative is unlikely to degrade the reliability of Alameda Municipal Power's distribution system. In contrast, Alameda Municipal Power claims that the Oakland Initiative will harm it because it will degrade reliability or impose a new requirement to staff operations centers 24/7. This claim lacks substantiation. Concurring with our analysis, CAISO observes that transfers, such as of Alameda Municipal Power load between the Cartwright and Jenney substations during peak loading conditions and under various contingency events, are "appropriate mitigation tool[s] for transmission planning purposes to serve the area reliability."⁹⁹

Additionally, CAISO states that it is monitoring Alameda Municipal Power's petition before FERC. Depending on the outcome, the CAISO states that it will "assess whether additional mitigation measures, beyond the battery storage and transmission upgrades currently identified... will be necessary in the next transmission planning cycle and subsequent cycles."¹⁰⁰ If FERC finds that the Alameda Municipal Power-PG&E Operating Agreement does not require Alameda Municipal Power to transfer load under emergency circumstances after the Oakland Initiative is implemented, CAISO has committed to finding additional measures to address any lost reliability capacity. We conclude that the Alameda Municipal Power and PG&E load transfer dispute will be resolved, or an alternative found, in a manner that does not undercut the reliability

⁹⁹ CAISO Opening Brief at 4.

¹⁰⁰ *Ibid.*

provided by the Oakland Initiative and does not decrease the value of the Agreements to ratepayers.

Supporting our analysis, the CAISO states that it does not believe that the outcome of the Alameda Municipal Power petition before FERC should be determinative regarding Commission consideration of PG&E's application. The CAISO states that "any direction from FERC disallowing use of Alameda Municipal Power load transfer will increase the need for resources in the Oakland area."¹⁰¹ The CAISO goes on to state that "delaying or denying PG&E's application to approve the [A]greements will only serve to extend the need for the Oakland Power Plant and the associated [Reliability-Must-Run] designation:"

...[T]he outcome of the pending FERC proceeding should not influence or delay the Commission's decision to approve the [A]greements. The storage resources provided by the [A]greements are necessary to retire the [Reliability-Must-Run] generation as soon as possible, regardless of how FERC rules on the complaint. In other words, the FERC complaint does not affect whether the Commission should approve the [Agreement.]¹⁰²

We concur with the CAISO that the Alameda Municipal Power FERC petition does not constitute a barrier to approval of PG&E's application because alternatives to the Alameda Municipal Power load transfer can be identified if necessary. Additionally, the Agreement resources enable the retirement of a 43-year-old power plant. With approval of this decision in early 2021, the Agreement energy storage resources will come online by Q1 of 2022, which will allow the Oakland Power Plant to be fully retired. It is important that the

¹⁰¹ CAISO Opening Brief at 4.

¹⁰² CAISO Reply Brief at 2.

Commission act now to meet these timelines. We acknowledge that contingencies may occur, but it is reasonable to approve the Agreements now because waiting to do so also has consequences.

In its Opening Brief, the Public Advocates Office suggests that the Commission should require PG&E to recover any additional costs it incurs to ensure the provision of Alameda Municipal Power load transfer under the Oakland Initiative from PG&E shareholders, not ratepayers.¹⁰³

We deny this request. If the PG&E and Alameda Municipal Power dispute is resolved through renegotiation of the Operating Agreement between the two, PG&E shall refer to traditional cost recovery channels to recover the costs of any additional needed mitigation.

5. Agreement Costs Are Reasonable

PG&E's application represents a complex and novel proposal for procuring energy storage location-specific reliability resources. The Scoping Memo asks if the costs of the Agreements are reasonable and if PG&E should be authorized to recover the costs, subject to review of PG&E's administration of the contracts. The following sections address this question and conclude that the costs of the Agreements are reasonable, and PG&E should be authorized to recover the costs.

5.1. The Costs of the East Bay Resource Adequacy Contracts Should Not be Considered when Determining the Cost Efficiency of the Agreements

Scoping Memo question 4(b) asks if the cost of the East Bay resource adequacy agreements associated with the Oakland Initiative storage projects should be considered alongside the cost of the Agreements when determining

¹⁰³ Public Advocates Office Opening Brief at 4.

the comprehensive cost efficiency of the proposed solution to Oakland Power Plant retirement. This section analyzes this question and concludes that the Commission should not consider the costs of the East Bay resource adequacy contracts when evaluating the costs of the Agreements and the comprehensive costs of replacing the Oakland Power Plant.

The central question here is what method should be used to analyze the reasonableness of Agreement costs. The Public Advocates Office suggests that analyzing the costs of Agreements together with the costs of the Easy Bay contracts for resource adequacy and energy products is the appropriate comparison. To assess costs using this framework, the Public Advocates Office proposes two methods. First, it compares the costs of the Agreements and East Bay's resource adequacy contracts to the costs of resource adequacy contracts for energy storage resources procured recently through the Integrated Resource Planning proceeding. Second, it calculates the value of the Agreements by subtracting the resource adequacy value from the costs of a resource-adequacy only contract with a similar energy storage resources procured recently through the Integrated Resource Proceeding. Using these methods, the Public Advocates Office argues that the costs of the Agreements and East Bay's resource adequacy contracts are higher than similar energy storage procurement occurring in the Integrated Resource Proceeding.¹⁰⁴

PG&E and East Bay assert that the Public Advocates Office approach is inappropriate because the approach does not take into account CAISO's requirement that the preferred resources be placed at specific substations in the Oakland subarea (at substations C and L). Energy storage resources providing

¹⁰⁴ PAO-2-C at 5-4 through 5-9.

resource adequacy benefits placed anywhere else in the Greater Bay Area local capacity area would not meet the CAISO's requirements, PG&E observes, and thus using hypothetical comparisons based on resource adequacy costs for projects in a less dense semi-rural area is inappropriate. Instead, PG&E conducted a Request for Offers for preferred resources meeting the CAISO's requirements and selected the least cost, best fit resources.

5.1.1. Discussion

We concur with PG&E that comparing the costs of the Agreements resulting from a competitive bidding process that requires location of the energy storage resources in particular locations to resource adequacy resources that do not meet the CAISO's locational requirements is inappropriate. The CAISO's 2018-2019 Transmission Plan eliminated its 2017 requirement that the energy storage component of the Oakland Initiative be a dedicated transmission asset, which would have required the storage to be utility owned and prohibited from participating in the CAISO market. Part of CAISO's rationale for this was that this would allow for the most cost-effective combination of resources.¹⁰⁵

The Public Advocates Office cost comparison of the proposed Agreements with recent projects is flawed in two additional ways. First, the projects compared are larger and thus are less expensive per MW due to economies of scale.¹⁰⁶ Second, the Agreement projects are located in downtown Oakland which is a congested area adjacent to dense residential use, but the comparison projects are located in less populated semi-rural areas. As PG&E states, costs for

¹⁰⁵ PGE-1 at 2-5, citing the CAISO 2018-2018 Transmission Plan at 123.

¹⁰⁶ PGE-3 at 3-6.

a project such as the Oakland Initiative, which is in a constrained area, are reasonably expected to be higher.¹⁰⁷

We conclude that the costs of the East Bay resource adequacy contracts should not be considered when determining the cost efficiency of the Agreements.

5.2. The Agreements are More Cost-Effective than Alternative Solutions

Scoping Memo question 4(f) asks if the Agreements are more cost-effective than alternative solutions. What this question explores is, was there a more cost-effective way for PG&E to meet the CAISO's identified reliability requirements in the Oakland basin? We conclude that there was not.

The CAISO first approved the Oakland Initiative as part of its 2017-2018 Transmission Plan and its approval included an assessment of the costs of alternatives to the Oakland Initiative. CAISO's assessment of alternatives compared estimated Oakland Initiative costs to those of installing fossil fuel generation or either a 115 kV or a 230 kV transmission line in northern Oakland. The 2017 CAISO analysis estimated that the Oakland Initiative would cost approximately a third to a fifth of these alternatives. On this basis, the CAISO recommended the Oakland Initiative as the preferred alternative.¹⁰⁸

¹⁰⁷ PGE-1 at 3-7.

¹⁰⁸ CASIO 2017- 2018 Transmission Plan, Approved March 22, 2018, at 129. See also PGE-1 at 1-8.

Table 5: Estimated Costs of Oakland Initiative and Alternatives (CAISO, 2017)

	Estimated Capital Cost (2022 \$M)	Total Cost (2022 \$ M)
Oakland Initiative	\$56 - \$73	\$102
115 kV transmission line	\$193-\$217	\$367
230 kV transmission line	\$316	\$574
Fossil fuel generation	\$232	\$368

Parties have not identified alternatives to the Oakland Initiative that could meet the identified reliability need through 2024 other than continued reliance on the Oakland Power Plant. Continued reliance on the Oakland Power Plant through 2024 is not desirable due to the age of the plant. The Oakland Power Plant has not been called in the last three years and therefore its physical condition and ability to perform if called has not been tested recently. If called, the plant relies on jet fuel and could exacerbate particulate emissions in the West Oakland area, which has one of the worst pollution profiles in the Bay Area.¹⁰⁹

Further, the Oakland Initiative provide reliability services at a lower cost to ratepayers than the Oakland Power Plant.¹¹⁰ Annual payments for Oakland Power Plant reliability services in 2020 and 2021 totaled \$3.2 million and \$3.3 million respectively. Additional multimillion dollar charges for "unplanned repairs" also sometimes occur and should be considered as part of the Oakland Power Plant's total annual costs.¹¹¹

¹⁰⁹ East Bay Opening Brief at 4, citing the CalEnviroScreen 3.0 Pollution Burden Map.

¹¹⁰ Note that the Vistra Agreement replaces the Oakland Power Plant whereas the esVolta Agreement addresses a transmission constraint at Oakland L substation. Thus, the cost of replacing the Oakland Power Plant with the Vistra Agreement is less than the two Agreements' \$2.1 million annual cost.

¹¹¹ *Id.* at 7.

We conclude that the PG&E Agreements are the most cost-effective solution to meet the identified need and to allow for retirement of the Oakland Power Plant. Alternative solutions are not feasible in a less than 10-year time frame and the CAISO estimates that these alternatives would be double or triple the cost of the Oakland Initiative.

5.3. The Agreements Constitute the Least Cost, Best Fit Resource to Meet the Identified Reliability Need

As described in PG&E's testimony, PG&E conducted a multiyear Request for Offer process to select Vistra and esVolta as the least cost bids that met the reliability need identified by the CAISO in its 2019-2020 Transmission Plan. We have reviewed the confidential bid information provided by PG&E and confirm that PG&E selected the least cost bids submitted in its Request for Offer process. The Vistra and esVolta Agreements are the least cost, best fit solution to meet the preferred resources component of the Oakland Initiative.

5.4. The Agreements Will Phase Out and Eliminate Ratepayer Costs from the Oakland Power Plant

Scoping Memo question 4(a) asked will, and to what extent, does the Oakland Initiative supplement or replace in its entirety the reliability benefits currently provided by the Oakland Power Plant, including the resource adequacy credits currently supplied through the existing Reliability-Must-Run contract? This question is relevant to assess the total costs to ratepayers of the Oakland Initiative.

Parties differ in their responses to this question. The California Large Energy Consumers Association asserts that the lack of assurance that Alameda Municipal Power load transfer will be provided means the Commission cannot determine if or when the Oakland Initiative will meet the identified reliability

need.¹¹² Accordingly, this party asserts the Commission cannot determine if or when the Oakland Initiative will meet the identified reliability nor if or when Oakland Power Plant costs can be fully eliminated.

Vistra and PG&E disagree with the California Large Energy Consumers Association. Vistra clarifies that energy storage located at the Oakland C substation can start up immediately and ramp up quickly, resulting in the “replacement of the existing fossil-fired Unit 2 of the Oakland Power Plant with the battery energy storage facility.”¹¹³ Unit 2 is not designated as a Reliability-Must-Run unit as of January 1, 2021; it is being retired (*see* section 3.2).

Vistra observes that although Units 1 and 3 of the Oakland Power Plant will continue to be designated as Reliability-Must-Run resources through December 31, 2021, the Oakland Initiative “sets the stage for the end of the [Reliability-Must-Run] designation for Units 1 and 3, at which time retirement of the remaining fossil units would be possible.”¹¹⁴ PG&E indicates that the Oakland Power Plant will be “progressively converted to energy storage in a phased transition.”¹¹⁵

5.4.1. Discussion

We find that the Agreements will phase out and ultimately eliminate ratepayer costs from designation of the Oakland Power Plant as Reliability-Must-Run resources. The CAISO confirms that the Agreements, and

¹¹² California Large Energy Consumers Association Opening Brief at 5, citing a CAISO statement that, “If the load transfer is determined not to be an option, then as part of the CAISO transmission planning process, additional mitigation will be assessed to address the reliability needs.” (*See also* CLECA-4, CAISO Response to California Large Energy Consumers Association Data Request, CLECA-DR1.pdf .)

¹¹³ Vistra Opening Brief at 5.

¹¹⁴ *Ibid.*

¹¹⁵ PG&E-2 at 2-1.

the Oakland Initiative substation upgrades “facilitate the retirement of the Oakland area [Reliability-Must-Run] resources.”¹¹⁶ Despite the many questions raised by parties, and uncertainty regarding the specific method by which the Alameda Municipal Power and PG&E dispute will be resolved, the Agreements facilitate progress toward the retirement of the 43-year-old plant. Section 7.5 of this decision further discusses the Agreements’ project timeline.

5.5. Agreement Costs Need Not Be Further Quantified to Demonstrate They are Just and Reasonable

Scoping Memo question 4(e) asked how the Agreements should be valued, and do they provide reasonable value, commensurate with the cost of the product, to PG&E and its ratepayers? This section discusses the value of the Agreements to ratepayers and concludes that the Agreements provide reasonable value to PG&E and ratepayers commensurate with their costs. The section also addresses Scoping Memo question 3 regarding whether including resource adequacy in the Agreements would have changed their value to PG&E customers and concludes that it would not.

The Public Advocates Office states that PG&E must quantify Agreement benefits and because it has not done so, the Commission cannot determine whether the costs to ratepayers are reasonable under Pub. Util. Code Sections 451, 454 and 728.¹¹⁷ The Public Advocates Office recommends that the Commission require PG&E to demonstrate that the costs of the Agreements are just and reasonable in accordance with Pub. Util. Code Sections 451, 454 and 728. The Public Advocates Office asserts that these statutes apply to PG&E’s application but because PG&E only provides qualitative descriptions, there is no

¹¹⁶ CAISO Opening Brief at 3.

¹¹⁷ Public Advocates Office Opening Brief at 3.

way for the Commission to determine whether the costs to ratepayers for the Agreements are just and reasonable nor whether Agreement costs are commensurate with the value of benefits.¹¹⁸

The Alliance for Retail Energy Markets and Direct Access Customer Coalition agree with the Public Advocates Office and further argue that PG&E must demonstrate that “PG&E’s bundled and unbundled customers are not subsidizing the customers” of East Bay as a result of the contingent contracts.¹¹⁹

East Bay and PG&E state that the Commission should value the Agreements based on the benefits they provide and as measured against the cost of other offers received in PG&E’s Request for Offers. East Bay and PG&E list the following benefits from the Agreements:

- Mitigating reliance on an aging fossil-fueled plant;
- Ensuring CAISO has necessary capacity and energy in the Oakland subarea;
- Providing a low-cost reliability solution to bridge seven to 10 years; and,
- Providing local air quality and greenhouse gas benefits.¹²⁰

East Bay also comments that the Agreements reflect the goals of the Commission’s Environmental and Social Justice Action Plan, particularly Goal 2 to “increase investment in clean energy resources to benefit [Environmental and

¹¹⁸ PAO-2-C at 5-1.

¹¹⁹ Alliance for Retail Energy Markets and Direct Access Customer Coalition, Opening Brief at 7.

¹²⁰ East Bay Opening Brief at page 14; *see also* PG&E PAO-1, Appendix B Chapter 5.3 Attachment, PG&E DR002Q06.

Social Justice] communities, especially to improve local air quality and public health.¹²¹

East Bay procured resource adequacy from the energy storage resources underlying the Agreements because it had resource adequacy need whereas PG&E did not. Thus, PG&E did not include resource adequacy in the Agreements.¹²² East Bay states that it valued the resource adequacy from the Oakland Initiative “precisely because their locational attributes allow for the retirement of the Oakland Power Plant; if East Bay did not see value in this retirement, it is possible that [it] would have invested in resource adequacy elsewhere in the Greater Bay Area local area.”¹²³ East Bay argues that if “East Bay were not investing in the [resource adequacy], PG&E’s ratepayers would have to invest significantly more to procure both the transmission alternative and the resource adequacy from these projects.”¹²⁴

5.5.1. Discussion

In this decision we determine the value of the Agreements by considering their intended purpose to meet a CAISO-specified reliability need. We explore whether the Agreements meet this need and consider whether there are other more cost-effective options to meet this need. We conclude that the Agreements are the least cost, best fit option to meet the reliability need identified by the CAISO.

¹²¹ California Public Utilities Commission, Environmental and Social Justice Action Plan, adopted February 19, 2019, Goal 2. Available here: <https://www.cpuc.ca.gov/CPUCNewsDetail.aspx?id=6442461331>.

¹²² East Bay Opening Brief at 10.

¹²³ *Ibid.*

¹²⁴ *Id.* at 11.

As discussed in section 3, the Agreements comprise part of a larger solution that will meet the Oakland subarea reliability need from mid-2022 through 2024.¹²⁵ The value of the Agreements to ratepayers is a reliability capacity of 43.25 MW and 173 MWh in the Oakland subarea. The Vistra Agreement addresses a specific reliability need at the Oakland L substation. The Agreements also advance Commission goals embodied in our Environmental and Social Justice Action Plan.

We disagree with the Public Advocates Office that the Commission cannot determine whether the cost to ratepayers is reasonable under Pub. Util. Code Sections 451, 454 and 728 because PG&E has not quantified the benefits of the Agreements. As discussed in section 5.2, CAISO's 2017 analysis estimated the costs of alternative ways to provide the same reliability services in the same location and found the Oakland Initiative, including the Agreements, to be the least cost alternative to meet the identified need. As discussed in section 5.3, PG&E's Request for Offer process selected the least cost bids for the required locations and services. To demonstrate that the costs are reasonable, PG&E must demonstrate that it has procured the least cost, best fit resource for the identified need and it has done so.

Additionally, as discussed in section 5.2, Agreement costs are less than the current Reliability-Must-Run costs of the Oakland Power Plant. The annual revenue requirement for the Oakland Power Plant has ranged from \$2.9 million to \$3.2 million. This exceeds Agreement costs by between approximately 32 to 45 percent annually. The Oakland Power Plant is also anticipated to have on-going maintenance costs and may no longer be dependable. For these reasons

¹²⁵ PGE-1 at 2-6.

we find that additional analysis or quantification under Sections 451, 454 and 728 to determine that Agreements costs are reasonable is not necessary. There is no other alternative available to meet the reliability need other than to continue procuring reliability services through a more expensive and aging plant. We find the Agreement costs to be just and reasonable.

PG&E did not have resource adequacy need at the time the Oakland Initiative was approved and thus PG&E did not include resource adequacy in the Agreements. By excluding resource adequacy products from its solicitation, PG&E reduced total ratepayer costs for the Agreements; this is the relevant question, not whether ratepayers are somehow subsidizing East Bay customers, as the Alliance for Retail Energy Markets and Direct Access Customer Coalition assert. An alternative that included PG&E procurement of resource adequacy would have been more expensive but would not have changed the value of the resources to PG&E customers.

6. The Agreements are Consistent with Statute and Commission Decisions

This section explores Scoping Memo question 5: Do the Agreements comply with relevant statute and Commission decisions. In this section, we first review relevant energy storage statutes and Commission decisions. Second, we examine statutory requirements pertaining to the Cost Allocation Mechanism. We conclude that it is unclear whether the Agreements must in all cases comply with the identified statutes and Commission decisions but that the Agreements are consistent with these authorities. This is not unexpected due to the novel approach the Agreements represent. We note that when a project does not fit neatly into a pre-existing category, we are not bound by precedent. Overall, the Agreements are a least cost, best fit solution that is less expensive than

alternatives, and it is reasonable to allocate the costs to benefiting customers through the Cost Allocation Mechanism.

6.1. Energy Storage Statutes and Commission Decisions

The Commission adopted a 2016 Biennial Storage Procurement Framework in D.16-09-007 and in D.18-01-003 adopted a Framework for Multi-Use Applications for energy storage resources. Pub. Util. Code Section 2835 and Section 2836.6 address energy storage contracting requirements. The Scoping Memo asks, are the Agreements required to comply with Sections 2835 and 2836.6 regarding energy storage contracts, D.18-01-003 regarding energy storage multiple use application rules, and D.16-09-007 establishing the storage procurement framework, and, if so, do they?

Parties dispute whether the Agreements are bound by these statutes and decisions and, if they are, if the Agreements comply with them. The Public Advocates Office states that the Agreements must comply with these statutes and Commission decisions because the Agreements pertain to energy storage resources.¹²⁶ PG&E asserts that the Agreements are not required to comply with these statutes and Commission decisions because PG&E is not procuring an energy storage system as contemplated under the energy storage statutes or Commission decisions.¹²⁷

After careful review, we conclude that the Agreements are consistent with Pub. Util. Code Section 2835 and Section 2836.6, D.16-09-007 and D.18-01-003. The Agreements reflect a form of procurement of energy storage services that has not previously come before the Commission. Therefore, these Commission

¹²⁶ Protest of the Public Advocates Office, May 18, 2020 at 2.

¹²⁷ PG&E Reply to Protests, May 28, 2020 at 5.

decisions and statutory requirements are not entirely instructive because we are solving a different problem; however, we find that the Agreements do not violate any express provisions from these authorities.

**6.1.1. Pub. Util. Code Section 2835
and Section 2836.6**

Pub. Util. Code Section 2835 (a)(3) requires an energy storage system to be cost effective and “either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid.” Section 2836.6 states that “[a]ll procurement of energy storage systems by a load-serving entity or local publicly owned electric utility shall be cost effective.”¹²⁸

PG&E states that its Agreements do “not involve the procurement of energy, capacity, ancillary services or other products from the energy storage resource. In contrast to energy storage system procurement, which includes the procurement of energy and capacity, the [Agreements] require counterparties to construct a facility at a location electrically connected to a specific distribution substation.”¹²⁹ PG&E asserts that the “commercial arrangement” under the Agreements is “distinct from typical energy storage procurement.”¹³⁰

6.1.1.1. Discussion

The Agreements proposed by PG&E are distinct from other energy storage procurement arrangements that have previously come before the Commission. PG&E observes that the Commission has previously approved PG&E

¹²⁸ Pub. Util. Code Sections 2835 and 2836.6. (See also Protest of Public Advocates Office May 18, 2020 at 2.)

¹²⁹ PG&E Reply to Protests, May 28, 2020 at 5.

¹³⁰ *Ibid.*

procurement of storage for reliability purposes. However, energy storage procurements for reliability purposes, authorized in Resolutions E-4909 and E-4791, differ from the proposed Agreements because they also included procurement of resource adequacy capacity to meet the identified reliability need, not just the “locational services” PG&E proposes to procure via the Agreements considered here.

Pub. Util. Code Section 2835(f) defines “procurement” as including the “right to use the energy from, or the capacity of... an energy storage system.” But PG&E’s Agreements do not give PG&E the right to call or use the energy or capacity from the storage resources, they merely ensure that this energy and capacity are placed at a reliability-constrained area identified by the CAISO. Therefore, whether the Agreements must comply with Sections 2835 and 2836.6 is somewhat unclear because, strictly speaking, PG&E is not “procuring” capacity or energy.

The primary requirement of Sections 2835 and 2836.6 regarding energy storage resources is that procurement of the storage resource must be demonstrated to be “cost effective.” Additionally, the resources must fulfill one or more of the functions described above, including reducing greenhouse gas emissions or deferring transmission investments. Sections 5.2 and 5.3 discuss how the Oakland Initiative, including the Agreements, is the least cost, best fit alternative available to addressing the Oakland subarea reliability need identified by the CAISO. This finding is consistent with the “cost effectiveness” requirement of Section 2835. Section 3 reviews the means by which the Oakland Initiative defers PG&E investment in transmission assets to serve the Oakland subarea until 2027 or later. This is consistent with the requirement in Section 2835 (a)(3) that energy storage resources defer investment in transmission

assets, amongst other functions. Section 3 describes how the Oakland Initiative, including the Agreements, will improve the reliable operation of the transmission system.

Whether or not the Agreements must comply with Pub. Util. Code Section 2835 and Section 2836.6, the Agreements meet the statutes' requirements that the energy storage resources be cost-effective and either defer transmission investments or improve the reliable operation of the grid.¹³¹ We conclude that the Agreements are consistent with Pub. Util. Code Section 2835 and Section 2836.6.

6.1.2. Decision 16-09-007

In D.16-09-007, the Commission required that any application for approval resulting from an energy storage Request-For-Offers must include specific information about the deferral of traditional assets and the proposed energy storage system. The information required includes a comparison of the cost of the deferred asset and the proposed energy system over the deferral period.¹³²

The Public Advocates Office states that it is not clear if the Agreements are deferring or substituting for a traditional asset but in either case the Commission should consider whether PG&E's application meets the informational requirements of D.16-09-007.¹³³

PG&E states that its Request for Offers was not limited to storage but rather sought any preferred resources (including energy efficiency, solar energy

¹³¹ Pub. Util. Code Section 2835(a)((3) states energy storage systems "shall be cost effective and either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid."

¹³² D.16-09-007 at 18.

¹³³ Public Advocates Office, Protest of application, May 18, 2020 at 7-8.

and/or demand response) that could meet the CAISO-defined need in the Oakland subarea. Therefore, the Agreements did not result from an “energy storage RFO” as outlined in D.16-09-007 and that decision’s requirements do not apply to the Agreements here.¹³⁴

PG&E further argues that D.16-09-007 only applies to energy storage that falls under the “state energy storage program” and that constitute energy storage resources that a utility intends to count towards compliance with Commission adopted storage targets. PG&E clarifies that it does not seek to count the energy storage resources considered here toward its compliance with the Commission’s energy storage target, reinforcing its argument that D.16-09-007 does not apply.¹³⁵

6.1.2.1. Discussion

D.16-09-007 imposes requirements regarding “applications for approval of distribution deferral projects resulting from an Energy Storage RFO.”¹³⁶ As noted by PG&E, the Agreements did not result from an “Energy Storage RFO” because PG&E’s Request for Offers was open to all preferred resources. Further, PG&E’s application did not seek “approval of [a] distribution deferral” project, although as discussed earlier, it serves as a bridge to and component of a longer-term transmission and distribution system solution.

We conclude that PG&E’s application is not required to comply with the requirements of D.16-09-007.¹³⁷ Nonetheless, we note that in 2017, the CAISO compared the estimated cost of the Oakland Initiative to that of other alternatives

¹³⁴ PG&E Reply to Protests, May 28, 2020 at 6.

¹³⁵ *Ibid.*

¹³⁶ D.16-09-007 at 18.

¹³⁷ PG&E Reply to Protests, May 28, 2020 at 6.

that could meet the identified subarea reliability need. CAISO compared the Oakland Initiative to 115 and 230 kV transmission lines and local generation. The CAISO projected that the Oakland Initiative was likely to cost significantly less than these reliability alternatives (*see* Table 5). The cost comparison conducted by the CAISO is substantially similar to the cost comparison requirements of D.16-09-007. Therefore, we conclude that the Agreements are largely consistent with D.16-09-007.

6.1.3. D.18-01-00

In D.18-01-003, the Commission adopted eleven rules to govern evaluation of multiple-use energy storage applications (MUA rules), along with definitions of service domains, reliability services, and non-reliability services.¹³⁸

The Public Advocates Office asserts that the MUA rules pertain to all energy storage procurement and the Commission should evaluate whether the proposed Agreements comply with them.¹³⁹ Particularly important, in the Public Advocates Office's view, are the MUA requirements that multiple-use storage applications ensure resource availability and that they dedicate a distinct capacity to the contracted reliability service. Although the Agreements do not include procurement of market products, the Public Advocates Office argues that they must nonetheless be contracted according to MUA rules 5, 6, 7, and 11.¹⁴⁰

PG&E states that the MUA rules do not apply to its application but rather only apply where "market products associated with storage resources are

¹³⁸ D.18-01-003, Appendix A.

¹³⁹ PAO-1 at 2-5. *See* also D.18-01-003, Conclusion of Law 5, which states that "future energy storage procurements should reflect the definitions and rules adopted in this decision."

¹⁴⁰ Public Advocates Office, Protest to PG&E Application, at 6; Public Advocates Office, Opening Brief at 5.

procured.”¹⁴¹ PG&E again emphasizes that it is not procuring market products associated with storage resources. “In contrast to storage procurement under the Commission’s storage programs, the... Agreements require the construction and operation of resources at particular locations. Under those Agreements, PG&E does not have right to the use of output of the storage resources...[and] PG&E does not seek cost recovery of costs associated with energy storage market products.”¹⁴² PG&E states that, “from a policy perspective, regulatory concerns regarding procurement of market products of storage resources” should not apply.”¹⁴³

PG&E explains that its Agreements and East Bay’s resource adequacy contracts with the energy storage resources represent complementary rather than mutually exclusive uses of the same energy storage resources. PG&E states the Agreements require only that the resources are constructed, are participating generators under the CAISO tariff, and are capable of responding to a CAISO dispatch instruction or operating order. However, PG&E also states that the Agreements require compliance with all MUA rules.¹⁴⁴

The Public Advocates Office responds that the Agreements are “contrary to MUA Rule 6” because they do not require the energy storage resources to provide resource adequacy capacity to East Bay or to any other party.¹⁴⁵ For this reason, the Public Advocates Office asked PG&E to modify its Agreements with both Vistra and esVolta to include an additional commitment that each will

¹⁴¹ PGE-03 at 1-4.

¹⁴² PGE-03 at 1-4 through 1-5.

¹⁴³ PGE-03 at 1-5.

¹⁴⁴ PG&E Opening Brief at 28; PGE-03 at 1-5.

¹⁴⁵ Public Advocates Office Opening Brief at 6.

maintain a separate contract to sell resource adequacy from its facility for the duration of the Agreement.¹⁴⁶ PG&E reported that it negotiated this modification with esVolta but not with Vistra.¹⁴⁷

6.1.3.1. Discussion

After carefully considering PG&E's application, and party protests, testimony and briefs, we conclude that the Agreements are not required to comply with the MUA rules adopted in D.18-01-003 because they do not involve procurement of market products and do not constitute multiple-use energy storage applications. As PG&E observes, the PG&E Agreements require that the resources are constructed at the Oakland C and L substations, are participating generators under the CAISO tariff, and are capable of responding to a CAISO dispatch instruction or operating order. However, the Agreements also require Vistra and esVolta to comply with all MUA rules.¹⁴⁸ We do not require PG&E to modify its Agreement with Vistra to add a commitment that Vistra will maintain a separate contract to sell resource adequacy from its facility for the duration of the Agreement.

Because this is a new type of energy storage resources contract, the applicability of the MUA rules to the Agreements has been difficult to discern. We find most compelling, however, PG&E's argument that its Agreements and East Bay's resource adequacy contracts with the energy storage resources do not constitute "mutually exclusive" uses of the energy storage resources but rather represent "complementary" uses. In other words, participation of the energy storage resources in the CAISO market— required in the Agreements and

¹⁴⁶ PG&E Opening Brief at 7.

¹⁴⁷ PGE-22.

¹⁴⁸ PG&E Opening Brief at page 28; PGE-03 at 1-5.

actualized through the East Bay contract— is the single mechanism through which CAISO dispatchability of the resources for local reliability purposes is ensured. The energy storage resources will not be bid into the CAISO market twice— once by PG&E for emergency dispatch for reliability purposes and once by East Bay for economic dispatch as resource adequacy resources— rather they will be bid into the market just once, to provide capacity and energy as contracted by East Bay, from the location that PG&E has secured with its Agreements.

We conclude therefore, that there is no “multiple use” provided by the PG&E and East Bay energy storage agreements for different products and the MUA rules therefore do not apply. There is only one reliability service provided by the two contracts considered together. It follows that there is no need to ensure delivery of one reliability service as a “priority over the other” (MUA Rule 5) and no risk that the “performance of one obligation renders the resource from being unable to perform the other obligation(s)” (MUA Rule 6).¹⁴⁹ MUA Rule 7 also does not apply because the energy resources are not “using different portions of capacity to perform services.” They are using the same capacity to perform a single service in a specific location.¹⁵⁰ MUA Rule 11 also does not apply because PG&E is not contracting for a service that is distinct from the provision of capacity to provide reliability but instead is contracting for the location of the reliability service at substations C and L.¹⁵¹ We conclude that the

¹⁴⁹ D.18-01-003, Appendix A at 1.

¹⁵⁰ *Ibid.*

¹⁵¹ *Ibid.* See also PGE-03 at 1-5.

MUA rules do not appear to apply here, but the Agreements are consistent with the MUA rules because they require compliance with them.¹⁵²

Our approach here is consistent with D.18-01-003's observation that that "allowing some flexibility for storage resources to provide multiple reliability services in the near term may provide important learning opportunities to inform future policymaking."¹⁵³ Also consistent with our approach, the California Energy Storage Alliance notes that "there may be certain time periods where the simultaneous provision of discharged energy can address both needs at once and the provision of both [resource adequacy] and the [locational Agreements] is through CAISO market integration and optimization."¹⁵⁴

We do not require PG&E to modify its Agreement with Vistra to add a commitment that Vistra will maintain a separate contract to sell resource adequacy from its facility for the duration of the Agreement. PG&E demonstrates that the Agreements require Vistra and esVolta to provide reliability support to the CAISO regardless of whether they are operating under resource adequacy contracts.¹⁵⁵ Both esVolta and Vistra have executed resource adequacy contracts with East Bay for the delivery terms that overlap with PG&E's Agreements and the Public Advocates Office did not provide any evidence that termination of the East Bay contracts is probable.¹⁵⁶ We agree with PG&E that if esVolta and Vistra were to terminate their East Bay contracts early it

¹⁵² PGE-03 at 1-5.

¹⁵³ CESA-1 at 6. (See also D.18-01-003 at 16.)

¹⁵⁴ *Id* at 7.

¹⁵⁵ PGE-1-C Appendix B at B-9, Vistra Agreement, Section 3.1 (Transaction); PG&E Opening Brief at 8.

¹⁵⁶ PG&E Opening Brief at 7.

seems likely they would seek to sell their resource adequacy capacity to another buyer.¹⁵⁷ Finally, PG&E confirms that, if necessary, the CAISO has the right to designate the units as “Reliability-Must-Run” units.¹⁵⁸ Participation of the energy storage resources in the CAISO market to provide reliability services is guaranteed by the Agreements and modification of the Vistra contract to require Vistra to maintain a resource adequacy contract throughout the period of the Agreement is not necessary.

In its reply Brief, the Public Advocates Office recommends that the Commission only allow cost recovery for the Agreements for the months in which each resource has a resource adequacy contract in place.¹⁵⁹ For the reasons explained above, this is not necessary, and we deny this request.

6.2. Cost Allocation Mechanism

PG&E proposes Cost Allocation Mechanism ratemaking treatment to recover the costs of the two Agreements. Several parties oppose this and urge the Commission to reject this request. These parties argue that Cost Allocation Mechanism treatment is inappropriate given that the unique nature of the Agreements does not involve procurement of resource adequacy products.

Scoping Memo question 5(b) asked if PG&E's proposed cost recovery mechanism complies with Pub. Util. Code Section 365.1(c), which addresses the Cost Allocation Mechanism. Scoping Memo question 7 asked if the Commission should authorize PG&E to recover the procurement costs associated with the Oakland Initiative preferred resources in rates through the Cost Allocation Mechanism or some other mechanism for the full term of the Agreements.

¹⁵⁷ *Ibid.*

¹⁵⁸ *Ibid.*

¹⁵⁹ Public Advocates Office Reply Brief at 3-4.

This section considers the testimony, protests and briefs filed by parties. We conclude that, although the Cost Allocation Mechanism is not a perfect fit, recovery of the Agreement costs using the Cost Allocation Mechanism is consistent with statute and ensures that those that pay for the costs of the Agreement receive the reliability benefits.

6.2.1. PG&E Position

PG&E's application requests that the Commission affirm that the esVolta and Vistra Agreements, and a one-time cost for an Independent Evaluator of PG&E's Request for Offer process, are eligible for Cost Allocation Mechanism ratemaking treatment, to be recovered through PG&E's New System Generation Charge and recorded to two new subaccounts that PG&E will establish in its New System Generation Balancing Account.¹⁶⁰ As discussed earlier, the annual revenue requirement of the Agreements and the one-time Independent Evaluator cost is approximately \$2.1 million per year for each year from 2022 through 2032.¹⁶¹ PG&E's application indicates that this amount includes an estimated amount for "Revenue Fee and Uncollectible" recovery using the current factor for this fee, which will be updated annually through PG&E's Energy Resource Recovery Account forecast proceedings. PG&E states that the Agreement revenue requirements run through January 2032 and are estimated at approximately \$21.3 million in total.¹⁶²

PG&E presents several arguments for why Agreement cost recovery using the Cost Allocation Mechanism is appropriate. First, PG&E argues that the Agreements are eligible for Cost Allocation Mechanism treatment because the

¹⁶⁰ PGE-1 at 4-1 through 4-2; See also PG&E's Opening Brief at 17.

¹⁶¹ PGE-1 at 1-12.

¹⁶² PGE-1, Table 4-3 at 4-3. (See also PG&E Opening Brief at 17.)

energy storage resources enable the retirement of the Oakland Power Plant and as such meet a CAISO-identified transmission planning need that benefits all PG&E's retail customers, including both bundled and unbundled customers. Second, PG&E points to two earlier Commission orders that permit use of the Cost Allocation Mechanism to procure preferred resources that meet grid reliability deficiencies (Resolutions E-4909 and E-4949). Third, PG&E observes that the Agreements' energy storage resources are not dedicated transmission assets but instead have the right to participate in CAISO markets. Because the energy storage resources have the right to participate in CAISO markets, this renders them ineligible to be included in transmission rates and ineligible for recovery under the CAISO's base transmission revenue requirement.¹⁶³

According to PG&E's argument, Cost Allocation Mechanism ratemaking treatment of eligible resources has two components - the allocation of net capacity costs and the allocation of capacity benefits. PG&E observes that Pub. Util. Code Section 365.1(c)(2)(C) requires that recovery of the net capacity costs in rates is based on a calculation where the costs of the resource, including any associated fuel expenses, less the net energy and ancillary service revenues received in the CAISO market, is the net cost allocated to customers. Capacity benefits include any resource adequacy value provided by the resource and are allocated to the customers who bear the net capacity costs.¹⁶⁴

PG&E states that the value of the Agreements to ratepayers is a reliability capacity of 43.25 MW and 173 MWh in the Oakland subarea. PG&E argues that because the Agreements' benefits do not include any resource adequacy values,

¹⁶³ PG&E Opening Brief at 19 - 22.

¹⁶⁴ *Id* at 18.

the net capacity costs for the Agreements are the contract payment costs. Because there are no energy or ancillary service revenues associated with the Agreements to subtract from these “net capacity costs,” the contract costs should be deemed fully recoverable as constituting the net capacity costs under the Cost Allocation Mechanism. Customers are treated fairly under a Cost Allocation Mechanism treatment, PG&E argues, because if PG&E had procured the resource adequacy attributes of the two energy storage resources PG&E would have had to pay more for its Agreements.¹⁶⁵

6.2.2. Parties’ Positions

Several parties including the Alliance for Retail Energy Markets and Direct Access Customer Coalition, the California Large Energy Consumers Association, and Shell Energy oppose cost recovery through the Cost Allocation Mechanism. These parties argue that the Agreements do not qualify for Cost Allocation Mechanism treatment because their costs do not reflect the “net capacity costs” that are the subject of Pub. Util. Code Section 365.1(c)(2)(A) and (C).

Shell Energy asserts that Pub. Util. Code Section 365.1(c)(2)(C) applies *only* if the resource adequacy benefits associated with eligible resources are allocated to all benefitting customers.¹⁶⁶ Shell Energy argues that Resolutions E-4909 and E-4949 do not set precedents for this application as both included procurement of resource adequacy products.¹⁶⁷ Shell Energy argues that in this circumstance, where PG&E has not acquired the resource adequacy capacity rights or other market products under the contracts, “Cost Allocation Mechanism treatment is

¹⁶⁵ *Id* at 18-19.

¹⁶⁶ Shell Energy Opening Brief at 4, 5, and 7.

¹⁶⁷ *Ibid*.

neither permissible nor justified.”¹⁶⁸ Shell Energy adds that if the Commission approves the proposed Agreements, it should require PG&E to propose a new cost allocation approach that properly allocates transmission-related costs between and among customer classes.¹⁶⁹

The California Large Energy Consumers Association generally shares Shell Energy’s views and adds that Pub. Util. Code Section 365.1(c)(2) addresses “procurement of generation/supply resources for local and system reliability, not procurement of so-called reliability services.”¹⁷⁰ The Alliance for Retail Energy Markets and Direct Access Customer Coalition observe that, to date, Cost Allocation Mechanism treatment has “*always* involved allocating the net costs and benefits, including resource adequacy, to the customers paying the Cost Allocation Mechanism charge.”¹⁷¹ The Alliance for Retail Energy Markets and Direct Access Customer Coalition caution that, if the Agreements are approved for Cost Allocation Mechanism treatment, this “could lead to a multitude of non-capacity utility projects seeking [Cost Allocation Mechanism] approval in violation of the statute.”¹⁷² The Commission “should send a clear message denying [Cost Allocation Mechanism] authorization to prevent this from happening.”¹⁷³

The Alliance for Retail Energy Markets and Direct Access Customer Coalition, and the California Large Energy Consumers Association recommend

¹⁶⁸ *Id* at 6.

¹⁶⁹ *Id* at 2 and 7.

¹⁷⁰ California Large Energy Consumers Association Opening Brief at 10.

¹⁷¹ Alliance for Retail Energy Markets and Direct Access Customer Coalition Opening Brief at 10, emphasis added.

¹⁷² *Id* at 13.

¹⁷³ *Ibid*.

that the Commission require PG&E to recover Agreement costs through transmission rates from all benefitting customers, including publicly owned utilities. The Alliance for Retail Energy Markets and Direct Access Customer Coalition estimate that recovering Agreement costs through transmission rates would require non-Commission jurisdictional entities like publicly owned utilities to pay approximately 11 percent of the costs.¹⁷⁴ Absent recovery via transmission rates, these parties urge the Commission to require PG&E to submit a new cost recovery allocation proposal, as suggested by Shell Energy.¹⁷⁵

The Public Advocates Office does not take a position on the use of the Cost Allocation Mechanism as the cost recovery mechanism for the Agreements. Instead, Public Advocates Office recommends the Commission consider Pub. Util. Code Section 365.1(c)(2)(C) and determine whether it should “expand” the application of the Cost Allocation Mechanism to include contracts such as the Agreements. The Public Advocates Office recommends the Commission ensure that Agreement costs are recovered from all benefitting customers, after first determining whether costs can be allocated since PG&E has not provided quantified values for Oakland Initiative benefits.¹⁷⁶

Contrary to Shell Energy’s view, the Public Advocates Office observes that “although statute does not require the purchase of specific market products, it likewise does not state whether [the Cost Allocation Mechanism] can be applied if no market products are purchased.”¹⁷⁷ Like Shell Energy, the Public Advocates Office contests Resolutions E-4909 and E-4949 as precedents, stating these are not

¹⁷⁴ *Id.* at 15.

¹⁷⁵ *Id.* at iv and 14.

¹⁷⁶ Public Advocates Office Opening Briefs at 7.

¹⁷⁷ *Id.* at 8.

applicable because “they concern resources for which a net capacity cost can be readily determined using a Commission-approved method.”¹⁷⁸ The Public Advocates Office argues that although PG&E assumes that the Agreement payments are equivalent to net capacity costs, in reality, “without [resource adequacy] procurement, net capacity costs under [Pub. Util. Code Section] 365.1(c)(2)(C) cannot be calculated. Thus, it is unclear how the Commission would apply [Cost Allocation Mechanism] treatment in this instance.”¹⁷⁹ Alternatively, the Public Advocates Office argues that the Cost Allocation Mechanism charge could be estimated at \$0.00 pursuant to Pub. Util. Code Section 365.1(c) and “thus, there would be no costs to recover.”¹⁸⁰

The Public Advocates Office notes that “there is no precedent for applying the [Cost Allocation Mechanism] to recover the net costs of a *service* rather than the net costs of *capacity*.”¹⁸¹ The Public Advocates Office concludes by observing that “it is not clear that PG&E may recover the costs of the... Agreements using the [Cost Allocation Mechanism].”¹⁸²

6.2.3. Cost Allocation Mechanism Cost Recovery is Appropriate

After carefully considering the testimony, protests and briefs filed by parties, we agree that the Cost Allocation Mechanism is not a perfect fit for recovery of Agreement costs because it was developed for a different purpose. However, in this unique instance, the Cost Allocation Mechanism is the method that best allocates the costs and benefits of this novel reliability solution. The

¹⁷⁸ *Id.* at 9.

¹⁷⁹ *Ibid.*

¹⁸⁰ PAO-1 at 6.

¹⁸¹ PAO-1 at 3-1, emphasis in original.

¹⁸² Public Advocates Office Opening Briefs at 7.

Agreements' energy storage resources enable the retirement of the Oakland Power Plant and as such meet a CAISO-identified transmission planning need that benefits all PG&E's retail customers, including both bundled and unbundled customers. We find that recovery of PG&E Agreement costs through Cost Allocation Mechanism ratemaking treatment is consistent with Pub. Util. Code Section 365.1(c) and ensures that those that pay for the costs of the Agreement receive the reliability benefits. We authorize PG&E to collect Agreement costs of approximately \$21 million through 2032 through its New System Generation Charge and to record the costs in two separate subaccounts that it establishes in its New System Generation Balancing Account.

Like the parties, we agree that considering Cost Allocation Mechanism ratemaking treatment for Agreement costs presents an unprecedented approach.

The key questions are, then:

1. Are the Agreements eligible for Cost Allocation Mechanism cost recovery pursuant to Pub. Util. Code Section 365.1(c)?
2. Does Cost Allocation Mechanism ratemaking treatment of Agreement costs violate Pub. Util. Code Section 365.1(c)(2)(A) or (C) because the Agreements do not involve purchase of resource adequacy products?
3. If Cost Allocation Mechanism ratemaking treatment for Agreement costs does not violate Pub. Util. Code Section 365.1(c)(2)(A) and (C), even though the Agreements do not involve purchase of resource adequacy products, how should net capacity costs be calculated?

On the first question, we conclude that the Agreements are eligible for Cost Allocation Mechanism cost recovery pursuant to Pub. Util. Code Section 365.1(c). Pub. Util. Code Section 365.1(c)(2)(A) requires that the Commission, if it authorizes "an electrical corporation to obtain generation

resources that the Commission determines are needed to meet system or local area reliability needs for the benefit of all customers in the electrical corporation's distribution service territory," must ensure that "the net capacity costs of those generation resources are allocated on a fully nonbypassable basis." Unlike Pub. Util. Code Section 2835, which defines the phrase "procure," however, Section 365.1(c) does not define the phrase "obtain generation resources." It is reasonable, therefore, to interpret the phrase "obtain generation resources" as encompassing the Agreements' requirement to locate the energy storage resources at Oakland substations C and L and to bid into CAISO as generation resources, and we do so here.

Regarding the second question, a careful reading of Pub. Util. Code Section 365.1 leads to the conclusion that this statute does not *require* the purchase of specific market products, including resource adequacy products, as part of "obtaining generation resources... needed to meet system or local area reliability needs for the benefit of all customers." Pub. Util. Code Section 365.1(c)(2)(C), states that "[t]he resource adequacy benefits of generation resources acquired by an electrical corporation pursuant to subparagraph (A) shall be allocated to all customers who pay their net capacity costs." However, nowhere does Section 365.1(c) state that the generation resources in question *must* procure resource adequacy products. Therefore, if the generation resources do not include resource adequacy benefits, these cannot be allocated to the customers who pay the net capacity costs. We conclude that Pub. Util. Code Section 365.1(c) does not require the purchase of resource adequacy products and application of the Cost Allocation Mechanism to the Agreements is consistent with this statute.

Regarding the third question, Pub. Util. Code Section 365.1(c)(2)(C) states, “net capacity costs shall be determined by subtracting the energy and ancillary services value of the resource from the total costs paid by the electrical corporation.” Since there are no energy and ancillary service values provided by the Agreements, we conclude that PG&E has taken an acceptable approach of determining the net capacity value as the cost of the Agreements. Our answers to the three questions are, therefore:

1. The Agreements are eligible for Cost Allocation Mechanism treatment pursuant to Pub. Util. Code Section 365.1(c);
2. The Agreements are consistent with Pub. Util. Code Section 365.1(c) even though they do not involve procurement of resource adequacy products; and,
3. PG&E’s method of determining the Agreements’ net capacity costs pursuant to Pub. Util. Code Section 365.1(c) is reasonable.

As we observed earlier, the Agreements constitute an unprecedented approach. However, they indisputably provide benefits: they provide system reliability benefits allowing for retirement of an aging power plant that costs more than the Agreements. Further, resource adequacy ensures capacity is available from generators, but the Agreements use energy storage resources as generators to increase the ability of the grid to deliver electricity where and when needed. The Agreements are less expensive than non-storage alternatives examined by the CAISO and are less expensive to PG&E customers than they would have been had the Agreements included resource adequacy products, which PG&E did not need.

The Agreements are also less expensive than resources procured as transmission assets. As described earlier, if the CAISO had required the Oakland

Initiative preferred resources to be transmission assets, they would have also been utility owned, placed in different locations with likely higher land and interconnection costs, and would not have been permitted to participate in the CAISO market. Removing the requirement that the Oakland Initiative resources be transmission assets allowed the resources to be procured through a competitive solicitation that allowed for third-party ownership and participation in the CAISO market, which reduced the total cost of the resources and, subsequently, the cost to PG&E customers.¹⁸³ However, this concurrently renders cost recovery through transmission rates impermissible.

Although the Agreements take an unusual and unprecedented approach to both their terms and cost recovery, we find that Agreement cost recovery using the Cost Allocation Mechanism treatment is consistent with statute. Additionally, the Commission has the authority to develop a Cost Allocation Mechanism-like cost recovery mechanism to appropriately allocate the costs and benefits of this solution. In this instance, we find using the existing Cost Allocation Mechanism is the best approach, but we may consider other options in the future if these types of transactions proliferate. We may see more applications like this in the future if Community Choice Aggregation

¹⁸³ PGE-3 at 4-4. "In the CAISO's subsequent 2018-2019 Transmission Plan, the CAISO moved away from having the [Oakland Initiative] storage resource be a dedicated transmission asset and justified the recommendation that the storage resource no longer be required to be a dedicated transmission asset as a way to allow for the most cost-effective combination of resources." At PGE-1 at 3-12, PG&E confirms that the results of its Request for Offers showed that "utility ownership offers were significantly more expensive" than third-party offers, which we have determined is accurate based on our review of confidential bid information. Additionally, the CAISO Storage as a Transmission Asset Stakeholder Initiative is on hold. The goal of this initiative is to develop policies to enable storage to provide cost-based transmission services to also participate in CAISO markets and receive market revenues.

participation continues to grow. If this occurs, we may consider broader updates to cost recovery options for energy as generation resources at that time.

7. Other Review Issues

7.1. Dedicated Analysis of the Greenhouse Gas Emission and Impacts of the Oakland Initiative is Not Required

Question 5 in the Scoping Memo asked if the Agreements comply with state policy, particularly regarding greenhouse gas emission reductions.

Question 5(c) asked if the Oakland Initiative would have a positive impact on greenhouse gas emissions and criteria pollutants.

These questions were scoped into this proceeding because PG&E and the Public Advocates Office have different views on whether the Oakland Initiative will provide greenhouse gas benefits and if so, what amount of greenhouse benefits it will provide. Relevant state policy in this case refers to Senate Bill (SB) 350 and SB 100. Both bills seek to de-carbonize the California electric grid by increasing the renewable procurement portfolio target from the prior target of 33 percent to 50 percent by 2030 (SB 350) and to 100 percent by 2045 (SB 100).

PG&E's application asserts that the Oakland Initiative supports a "transition from a fossil-fueled resource to non-emitting energy sources" in the Oakland local subarea, "delivering both local air quality benefits and avoiding greenhouse gas emissions associated with the Oakland Power Plant."¹⁸⁴

The Public Advocates Office objects to this statement. The Public Advocates Office observes that it is not clear what the Oakland Initiative's impact will be on greenhouse gas and criteria pollutant emissions "because

¹⁸⁴ PGE-1 at 1-10.

PG&E has not quantified those impacts.”¹⁸⁵ The Public Advocates Offices notes that “energy storage does not inherently reduce emissions, and if the Commission “considers avoidance of [greenhouse gas] emissions when it determines whether to approve the [Oakland Initiative], then PG&E should quantify the [greenhouse gas] emissions avoided.”¹⁸⁶ The Public Advocates Office recommends that PG&E contract with a third party to conduct an assessment that considers the emissions impacts of charging and discharging the resources.¹⁸⁷

PG&E urges the Commission to reject this recommendation. PG&E notes that retiring the Oakland Power Plant will end any associated greenhouse gas and criteria pollutant emissions associated with the plant. However, because the plant is rarely operated the quantifiable benefits from retiring the plant will be small. PG&E asserts that determining the effect of “two small incremental energy storage facilities” on greenhouse gas and pollutant emissions that occur in California would be a “challenging, likely-to-be controversial task” and observes that the Commission has not required this in the past.¹⁸⁸

7.1.1. Discussion

We concur with PG&E that a dedicated analysis of the greenhouse gas emissions impacts of replacement of the Oakland Power Plant with the Oakland Initiative would be challenging and would be of limited usefulness. As noted by the Public Advocates Office, conducting such an analysis is not required by

¹⁸⁵ Public Advocates Office Opening Brief at 9.

¹⁸⁶ *Ibid.*

¹⁸⁷ *Ibid.*

¹⁸⁸ PG&E Reply Brief at 23-24.

statute or in D.18-02-018, which adopts greenhouse gas emission reduction targets for load-serving entities.¹⁸⁹

One of the many benefits expected with an increased renewable procurement portfolio target is reduced greenhouse gas emissions from electrical generation to help meet the state's climate goals. While we agree with the Public Advocates Office that energy storage includes technologies that do not qualify as renewable resources, SB 350 and the Commission support the procurement of energy storage to assist with the integration of more renewables on the grid.

Energy storage can be used to maintain voltage stability and power quality on the grid in addition to storing power from the grid when there is an oversupply and discharging power to the grid when there is limited supply. Further, SB 350 supports the procurement of resources to provide grid reliability services that minimize reliance on system power and fossil fuel resources and that, "where feasible, cost effective, and consistent with other state policy objectives, increase the use of large- and small-scale energy storage."¹⁹⁰

Under the proposed Agreements, the Oakland Initiative resources would be optimally charged to assist with renewable integration and reduce reliance on a fossil fuel resources. To prepare for an anticipated reliability event, PG&E would charge the Agreement energy storage resources from the grid likely at

¹⁸⁹ SB 350, codified in Pub. Util. Code Sections 454.51 and 454.52, requires the Commission to adopt a process for each load-serving entity to file an integrated resource plan that meets the state's greenhouse gas emission reduction targets and minimizes local pollutants and greenhouse emissions. The Commission in D.18-02-018, addressing the Integrated Resource Planning proceeding, adopted a greenhouse gas emission reduction target for the electric sector, required each load-serving entity to file an Integrated Resource Plan taking into account its target. In the same decision, the Commission indicated it would include targets in modeling sent to CAISO for use in transmission planning.

¹⁹⁰ Senate Bill 350, Section 25, Article 17 (c) added to Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

night when the grid is primarily served by gas resources in advance of the expected event the following day.¹⁹¹ Since these reliability events are rare, however, charging from the grid at night also would be rare. We conclude the Agreements support and are consistent with the state's renewable procurement portfolio targets and climate goals.

Although the Agreement storage assets may have some greenhouse gas emissions impacts through their regular charging and discharging activities, on the whole the Oakland Initiative will positively impact Oakland residents and surrounding communities by reducing the likelihood of the release of criteria pollutants. We also note that Commission staff have initiated greenhouse emission impact studies for larger energy storage projects and are evaluating greenhouse gas impacts in R.20-05-003 on a system portfolio basis instead of a project-by-project basis. We do not require PG&E to conduct a dedicated study of the greenhouse gas emissions impact of the Agreements.

7.2. PG&E's Solicitation Process Was Properly and Reasonably Conducted

Question 6 of the Scoping Memo asks if PG&E's Request for Offers process was properly and reasonably conducted. This section reviews this question and concludes that it was.

In 2017, the CAISO identified need for 20 MW and 120 MWh of clean energy and capacity to be online in the Oakland subarea by February 2022. Additionally, CAISO identified need for a utility-owned, dedicated transmission asset of a least 10 MW of 4-hour duration storage.¹⁹²

¹⁹¹ PGE-13 at 2; PGE-3 at 2-7; PGE-20 at 2.

¹⁹² PGE-1 at 3-3.

The CAISO's 2018-2019 Transmission Plan eliminated the requirement for the 10 MW resources to be utility owned and indicated that the energy storage resources could participate in the CAISO market.¹⁹³ The 2018-2019 Transmission Plan also identified a transmission constraint between the Oakland C and Oakland L substations and added a specific requirement for seven MW to be interconnected to the Oakland L substation.¹⁹⁴

The CAISO's 2019-2020 Transmission Plan again modified the Oakland Initiative preferred resources requirements. The 2019-2020 Transmission Plan increased the Oakland Initiative procurement requirement to 36 MW and 173 MWh and stated that this need must be met by energy storage, not other preferred resources. The 2019-2020 Transmission Plan also confirmed that the identified need could be met with 43.25 MW of 4-hour storage.¹⁹⁵

PG&E's application describes how it issued a Request for Offers in early 2017 on behalf of itself and East Bay to procure preferred resources to meet the reliability need identified by the CAISO at that time. The Request for Offers sought in front or behind the meter storage, renewable resources, or behind the meter load modifying resources such as energy efficiency, consistent with the CAISO's 2017-2018 Transmission Plan requirements.¹⁹⁶

PG&E states that it and East Bay conducted "parallel, but independent" solicitations, in which East Bay sought market products associated with the preferred resources and PG&E sought the locational benefits.¹⁹⁷ Bidders were

¹⁹³ PGE-1 at 3-5.

¹⁹⁴ PGE-1 at 2-5; PG&E Opening Brief at 23.

¹⁹⁵ PGE-1 at 3-6.

¹⁹⁶ PGE-1 at 3-3.

¹⁹⁷ PGE-1 at 3-1.

permitted to offer contingent offers under which, for instance, the price offered to PG&E for the locational service would be contingent on the execution of a resource adequacy agreement with East Bay. The PG&E and East Bay solicitations had “separate processes for offer evaluation, shortlisting, negotiations and contract pricing,” and prohibited sharing commercial information.¹⁹⁸ PG&E engaged an Independent Evaluator to oversee its solicitation process and briefed the Commission’s Cost Allocation Mechanism peer review group three times on its solicitation process.¹⁹⁹

When the CAISO updated its need requirements in the 2019-2020 Transmission Plan, PG&E states that it considered conducting a supplemental Request for Offers. PG&E states that is considered the interconnection queue and impacts on the timeline and determined that a new solicitation was not preferable. As a result, in early 2020, PG&E reached out to shortlisted participants to request incremental storage offers.²⁰⁰

PG&E received offers for utility and third-party owned in-front of and behind-the-meter storage, and energy efficiency.²⁰¹ PG&E evaluated the bid offers it received based on least cost, best fit principles using quantitative and qualitative criteria. The primary quantitative factor used to evaluate bids was price and the primary qualitative factor was project viability.²⁰² PG&E states that offers for utility-owned energy storage were “significantly more expensive” than

¹⁹⁸ PGE-1 at 1-4; PG&E-1 at 3-1.

¹⁹⁹ PGE-1 at 3-8. See PG&E-1-C, Appendix C, “Independent Evaluator Reports.” See also PG&E Opening Brief at 24.

²⁰⁰ PGE-1 at 3-6.

²⁰¹ *Ibid.*

²⁰² *Id* at 3-8.

offers for third-party owned storage.²⁰³ PG&E states that to minimize procurement cost it did not add a “buffer for load uncertainty,” and so did not select energy efficiency offers nor procure storage beyond the minimum need identified by CAISO in 2019.²⁰⁴

7.3. Discussion

In its protest, testimony and brief, the Center for Energy Efficiency and Renewable Technologies raised concerns regarding PG&E’s solicitation process, stating in particular that it was “unclear” why PG&E did not procure energy efficiency through the process.

After carefully reviewing PG&E’s application, testimony, independent evaluators report, confidential bid and other information, we conclude that PG&E properly and reasonably conducted its solicitation. We find that PG&E selected the least cost, best fit bids that met the CAISO’s updated 2019-2020 Transmission Plan need requirements. We also find that PG&E reasonably determined not to procure additional load-modifying preferred resources or storage locational resources beyond the minimum need identified by the CAISO in the 2019-2020 Transmission Plan to minimize procurement costs.

The evolution of CAISO’s minimum need requirements between 2017 and 2019 complicated PG&E’s procurement process by restricting fulfillment of the reliability need to energy storage resources. Despite this, we observe no malfeasance or inappropriate behavior by PG&E during its solicitation. We conclude that PG&E properly and reasonably conducted its solicitation.

²⁰³ *Id.* at 3-12.

²⁰⁴ *Id.* at 3-15. PG&E indicates that it suggested that CAISO explore a method for including a “procurement buffer for load uncertainty” in the 2020-2021 Transmission Plan but that the methodology does not yet exist.

7.4. Potential Safety Risks Have Been Adequately Reduced, Managed and Addressed

Scoping Memo question 6(a) asks if PG&E's Request for Offer and contracting process adequately reduced, managed and addressed potential safety issues. We determine that it has.

PG&E's application explains that the Agreements include "enhanced" safety provisions to reduce, manage, and address potential safety risks that PG&E has previously required for other energy storage agreements. The enhanced safety provisions require Vistra and esVolta to practice responsible safety management through contractual terms and conditions based on the standards of Prudent Electrical Practice, applicable laws and regulations, and the requirements of PG&E's Contractor Safety Program (PG&E Safety Requirements).²⁰⁵

The Agreements require Vistra and esVolta to each provide a project safety plan that demonstrates responsible safety management during all phases of the project lifecycle, including project design, construction, operation, and maintenance. Each project safety plan:

- Includes a summary of the project design and description of key safety-related systems;
- References the applicable safety-related codes and standards and the seller's current safety programs and policies; and,
- Describes potential hazards and include risk mitigations and safeguards, such as operating procedures, incident response and recovery plans, and personal protective equipment and procedures.²⁰⁶

²⁰⁵ PG&E Opening Brief at 25; PGE-1 at 3-19.

²⁰⁶ *Ibid.*

The Agreements require Vistra and esVolta to demonstrate and enforce contractor and subcontractor compliance with PG&E's Safety Requirements.

PG&E also states that it applied its Contractor Safety Program prequalification standards to assess the safety performance and practices of each seller organization prior to contract execution. PG&E indicates it will continue to monitor and perform safety checks of the Vistra and esVolta project safety plans for consistency with PG&E's Safety Requirements. PG&E states that the Agreements' terms provide it with the ability to enforce those requirements or, in certain cases, terminate the contracts in the case of non-compliance.²⁰⁷

We conclude that the Agreements appropriately address safety considerations and that potential safety risks have been adequately reduced, managed and addressed.

7.5. PG&E's Project Timeline is Feasible and Reasonable

Scoping Memo question 6(b) asks if the project timeline provided by PG&E is reasonable. This section reviews the Agreements' proposed timelines and concludes that they are feasible and reasonable.

PG&E's Vistra Agreement requires the project to begin deliveries on February 1, 2022.²⁰⁸ East Bay's contract with Vista requires delivery of resource adequacy on January 1, 2022 and is contingent on Commission approval of the PG&E Vistra Agreement.²⁰⁹ PG&E states that the construction timeline for the

²⁰⁷ *Ibid.*

²⁰⁸ PGE-2 at 2-2.

²⁰⁹ *Ibid.* (See also PGE-1 at 1-4.)

project is approximately one year.²¹⁰ The Agreements allow for a 90-day delay in the delivery date beyond the expected initial delivery date, if needed.²¹¹

PG&E's detailed schedule for the projects indicates a start date for construction of the Vistra facility on February 1, 2020, CAISO testing of the facility by September 2021, and start of commercial operations by October 15, 2020.²¹² PG&E states that the esVolta project schedule is anticipated to be similar to that of Vistra.²¹³

Vistra reports that Unit 2 of the Oakland Power Plant was released from its Reliability-Must-Run obligation in the fall of 2020.²¹⁴ Neither PG&E nor Vistra indicated that there would be a change in their project schedules in their Opening or Reply Briefs.

We conclude that the schedule remains largely on track, remains feasible, and that delivery by Vistra and esVolta of the Agreement locational services will begin on February 1, 2022 as planned and as provided for in the Agreements.

Further, we note that Units 1 and 3 of the Oakland Power Plant will remain online during the installation of the Agreements' energy storage. The CAISO has confirmed that the Oakland Initiative will facilitate retirement of the Reliability-Must-Run contracts once the batteries are online.²¹⁵

²¹⁰ PGE-2 at 2-2.

²¹¹ PGE-1 at 3-18.

²¹² PGE-2 at 2-3, Table 2-1.

²¹³ PG&E Opening Brief at 26.

²¹⁴ Vistra Opening Brief at 5.

²¹⁵ CAISO Opening Brief at 1 - 2.

8. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Cathleen A. Fogel in this matter was mailed to the parties in accordance with Section 311 of the Pub. Util. Code and comments were allowed under Rule 14.3 of the Rules. Comments were filed on _____ and reply comments were filed on _____.

9. Assignment of Proceeding

Commissioner Genevieve Shiroma is the assigned Commissioner and Cathleen A. Fogel is the assigned ALJ in this proceeding.

Findings of Fact

1. The Vistra and esVolta Agreements are part of a package of upgrades called the Oakland Initiative that will provide transmission reliability to the Oakland subarea and facilitate retirement of the 43-year-old Oakland Power Plant now located at Jack London Square.
2. The Vistra and esVolta Agreements will together ensure that 43.25 MW and 173 MWh are available in the Oakland subarea if called during an emergency event.
3. The Agreement energy storage resources are structured to come online in early 2022 and have 10-year contracts.
4. The portfolio of projects proposed by PG&E's Oakland Initiative, including the Agreements, will meet the Oakland local subarea reliability need until 2024.
5. There is reliability need in the Oakland subarea beyond 2024 that the Agreements will help to meet that justifies the Agreements' 10-year contracts.
6. The Vistra and esVolta Agreements are a reasonable bridge to and component of a longer-term strategy to meet Oakland subarea reliability needs.

7. The energy storage resource services procured through the Agreements meet system and local subarea reliability needs.

8. The Vistra and esVolta Agreements are sufficient to ensure that the energy storage resources will be available during single or multiple event emergencies and do not need to be modified to require the resources to maintain a state of charge.

9. On August 7, 2020, Alameda Municipal Power filed a petition for declaratory order with the FERC requesting, amongst other matters, that the FERC adjudicate whether the Operational Agreement that Alameda Municipal Power has with PG&E includes load transfers as contemplated in the Oakland Initiative.

10. Alameda Municipal Power did not demonstrate that the Oakland Initiative will increase the frequency of load transfer.

11. Alameda Municipal Power did not demonstrate that the Oakland Initiative will unduly rely on load transfers during contingency events.

12. Alameda Municipal Power did not demonstrate that the Oakland Initiative degrades its reliability.

13. Alameda Municipal Power's dispute with PG&E will be resolved through a FERC ruling, further negotiations between PG&E and Alameda Municipal Power resulting in a modified Operating Agreement, or the CAISO transmission planning process will identify an alternative mitigation option.

14. It is reasonable for the Commission to approve the Vistra and esVolta Agreements regardless of Alameda Municipal Power's petition for declaratory order before the FERC.

15. If the Commission does not approve the Agreements in Q1 2021, the Agreements cannot meet the planned 2022 online dates.

16. PG&E's application requests authority to recover \$21.3 million for the two Agreements and one-time costs of an Independent Evaluator, over 10 years, or approximately \$2.1 million annually.

17. The Vistra and esVolta Agreements are the least cost, best fit solution to meet the preferred resources component of the Oakland Initiative.

18. The costs of the Vistra and esVolta Agreements are reasonable

19. It is unclear if the Agreements must comply with Pub. Util. Code Section 2835 and Section 2836.6, but the Agreements are consistent with these statutes' requirements that energy storage resources be cost-effective and either defer transmission investments or improve the reliable operation of the grid.

20. The CAISO analysis comparing the estimated cost of the Oakland Initiative to other transmission or generation options that could meet the reliability need in the Oakland subarea is substantially similar to the cost comparison requirements of D.16-09-007.

21. The Agreements do not involve procurement of market products and do not constitute multiple-use energy storage applications.

22. The Agreements' energy storage resources enable the retirement of the Oakland Power Plant and as such meet a CAISO-identified transmission planning need that benefits all PG&E retail customers, including bundled and unbundled customers.

23. The Agreements are eligible for Cost Allocation Mechanism treatment pursuant to Pub. Util. Code Section 365.1(c).

24. Pub. Util. Code Section 365.1(c) does not require the purchase of resource adequacy products.

25. PG&E's method of determining the Agreements' net capacity costs pursuant to Pub. Util. Code Section 365.1(c) is reasonable.

26. The Cost Allocation Mechanism is the best mechanism to equitably allocate the costs and benefits of the Vistra and esVolta Agreements.

27. It is reasonable for PG&E to collect funds for the Agreements and the one-time Independent Evaluator via its New System Generation Charge and to record costs in two new separate subaccounts that it establishes in its New System Generation Balancing Account.

28. The Request for Offer process PG&E used to obtain the Vistra and esVolta local area reliability resources was reasonable.

29. The Agreements adequately reduce, manage and address potential safety risks.

Conclusions of Law

1. The Vistra and esVolta Agreements are consistent with Pub. Util. Code Sections 2835 and 2836.6 and with Commission multiple-use energy storage application rules.

2. The Agreements are consistent with state greenhouse gas emission reduction policies including SB 350 and SB 100.

3. PG&E's proposed Cost Allocation Mechanism ratemaking treatment for the Agreements is consistent with Pub. Util. Code Section 365.1(c).

4. The Commission should authorize PG&E to recover the costs of the Vistra and esVolta local area reliability service Agreements and the one-time Independent Evaluator costs using the Cost Allocation Mechanism.

5. The Commission should approve the Vistra and esVolta local area reliability service Agreements.

O R D E R

1. The Application of Pacific Gas and Electric Company for Approval and Recovery of Oakland Clean Energy Oakland Initiative Preferred Portfolio Procurement Costs is approved.

2. Pacific Gas and Electric Company's Local Area Reliability Service Agreements with Vistra Corp. and Dynegy Marketing and Trade, LLC and Tierra Robles Energy Storage, LLC are approved.

6. Pacific Gas and Electric Company is authorized to recover the costs of the Vistra and esVolta Local Area Reliability Service Agreements and the one-time Independent Evaluator costs of approximately \$21.3 million over a 10-year period using Cost Allocation Mechanism treatment.

7. Pacific Gas and Electric Company is authorized to collect the funds via a New System Generation Charge and to record costs in two new separate subaccounts that it establishes in its New System Generation Balancing Account.

8. Application 20-04-013 is closed.

This order is effective today.

Dated _____, at San Francisco, California.