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Decision 23-11-068 November 16, 2023

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to
Revisit Net Energy Metering Tariffs
Pursuant to Decision 16-01-044, and to
Address Other Issues Related to Net
Energy Metering.

Rulemaking 20-08-020

DECISION ADDRESSING REMAINING PROCEEDING ISSUES

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DECISION ADDRESSING REMAINING PROCEEDING ISSUES

Summary

This decision addresses the remaining six issues of this proceeding, as briefly described below.

First, following up on the modernization of net metering in D.22-12-056, this decision adopts a virtual net billing tariff that, in several respects, mirrors the net billing tariff adopted in Decision (D.) 22-12-056 and balances the requirements of Public Utilities Code Section (Pub. Util. Code §) 2827.1 and the Guiding Principles adopted in D.21-02-007. The restructured virtual net billing tariff provides retail export compensation rates based on Avoided Cost Calculator values but recognizes the particular circumstances of the residential customers taking service on this tariff. These residential customers are typically renters and, as the record shows, are predominantly lower-income customers; whereas residential customers in the net billing tariff are typically homeowners with generally higher incomes. While the Commission has focused on equitable treatment between tariff participants and nonparticipants, it is reasonable to balance this objective with the objective of similar treatment between renters and homeowners for the purpose of this tariff.

This decision adopts an aggregation net billing subtariff that also mirrors the net billing tariff but maintains the credit and debit approach used in the existing net energy metering aggregation subtariff. The Commission determines that while there is no statutory requirement to continue the provisions of Pub. Util. Code §2827(h), the Commission has the discretion to maintain the credit and debit provisions as long as they comply with Pub. Util. Code § 2827.1 requirements for a successor tariff.

The consideration of enhanced consumer protection issues is in the scope of this proceeding. This decision improves the project developer Watch List process, previously adopted in D.21-06-026, and establishes a process for addressing customer bill format issues.

As directed by D.22-12-056, this decision establishes the process for an evaluation of the net billing tariff, virtual net billing tariff, and aggregation net billing subtariff. This decision provides a transparent process with opportunity for party feedback. While the Commission declines to adopt research questions prior to the engagement of a consultant, this decision adopts a set of objectives for the research questions that focus on improving equity and affordability, reducing greenhouse gas emissions, encouraging electrification, protecting consumers, and considering the impact of the net billing tariff on the solar industry.

Following adoption of the California Air Resources Board Greenhouse Gas Emissions Reductions Standards, this decision reviewed comments on a Staff Proposal to Implement Net Energy Metering Fuel Cell Greenhouse Gas Emission Standards. This decision adopts a revised version of this Staff Proposal.

Pub. Util. Code § 769.2 requires certain contractors and projects to provide prevailing wages to construction workers and apprentices. This decision adopts a plan to implement the statute. This decision revises the interconnection application process and requires the creation of a disclosure form and an eligibility checklist. This decision also requires the investor-owned utilities to collaborate with the Department of Industrial Relations in sharing information.

This proceeding is closed.

1. Background

On August 27, 2020, the Commission adopted the *Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Metering (Order)*, with the focus of the proceeding to be the development of a successor tariff pursuant to the requirements of Assembly Bill (AB) 327 (Perea, Stats. 2013, ch. 611).¹ Through the adoption of Decision (D.) 22-12-056, the Commission approved a successor to the Net Energy Metering (NEM) 2.0 tariff,² referred to as the net billing tariff, which aligns price signals with the electric grid's conditions, optimizes tariff customers' grid use, and incentivizes adoption of combined solar and storage renewable electrical generation facilities (Generation Facilities).

While many issues in the *Joint Assigned Commissioner's Scoping Memo and Administrative Law Judge Ruling Directing Comments on Proposed Guiding Principles (Scoping Memo)* were addressed in D.22-12-056, the February 1, 2023 *Administrative Law Judge's Ruling Providing Details on February 8, 2023 Workshop and Soliciting Responses to Ruling Questions (February 1 Ruling)* recognized there are five outstanding issues that need to be considered in this proceeding, including: 1) the Virtual Net Energy Metering (VNEM) tariff; 2) the Net Energy Metering Aggregation (NEMA) subtariff; 3) consumer protections;

¹ AB 327 added Section 2827.1 to the Public Utilities Code and mandated that the Commission adopt a successor to the existing net energy metering tariff with seven requirements: 1) ensure customer-sited renewable distribution generation continues to grow sustainably and include alternatives for growth in disadvantaged communities; 2) establish terms of service and billing rules; 3) ensure the tariff is based on the costs and benefits of the generation; 4) ensure costs and benefits are equal; 5) allow projects greater than one megawatt to be built to the size of the onsite load; 6) establish a transition period; and 7) make these determinations in a rulemaking.

² NEM is the acronym for net energy metering. The Commission established the NEM 2.0 tariff in D.16-01-044, replacing the previous tariff, referred to as the NEM 1.0 tariff.

4) the evaluation of the recently adopted net billing tariff; and 5) fuel cell participation in net energy metering. The March 22, 2023 *Assigned Commissioner's Amended Scoping Memo and Statutory Deadline Extension* (Amended Scoping Memo) added a new item for the Commission to consider: the actions needed to implement AB 2143 and Public Utilities Code Section (Pub. Util. Code §) 769.2.³ This decision addresses all six issues. Below is a description of the activities in this proceeding leading to the adoption of this decision.

1.1. Procedural Activities

On January 25, 2023, a Chief Administrative Law Judge Notice was served by email to all persons on the service list, notifying them of a February 8, 2023 virtual workshop regarding the issues of the VNEM tariff and the NEMA subtariff (VNEM/NEMA Workshop).

As previously stated, the February 1 Ruling outlined the remaining issues of the proceeding, but also established a schedule for the remainder of the proceeding and provided greater details on the VNEM/NEMA Workshop. Additionally, the ruling described a need to complete the record on consumer protections and the evaluation of the newly adopted net billing tariff and

³ "On September 29, 2022, California Governor Gavin Newsom approved [AB] 2143 (Carrillo), which beginning on January 1, 2024, requires large customer-sited renewable electrical generation facilities, and any associated battery storage, that enrolls in tariffs designed for these projects (*e.g.*, net energy metering or net billing tariffs) to provide, at a minimum, prevailing wages to all construction workers and apprentices, unless the project is '(1) a residential facility that will have a maximum generating capacity of 15 kilowatts (kW) or less of electricity that will be installed on a single-family home, (2) a project that is already a public work under existing law, or (3) a facility that serves only a modular home, a modular home community, or multiunit housing that has two or fewer stories.' The contractor is required to maintain and verify payroll records and biannually, on July 1st and December 31st of each year, submit to the Commission digital copies of the certified payroll records for projects subject to this statute. The statute states that if a willful wage violation has been enforced against a contractor of an eligible and interconnected project, then the project will lose service to its standard contract or tariff that is offered pursuant to Section 2827 or 2827.1." (Amended Scoping Memo at 3.)

instructed parties to file comments responding to several questions on these two topics. The following parties filed opening comments on February 24, 2023, responding to the evaluation and consumer protection questions: 350 Bay Area; California Solar and Storage Association (CALSSA); Ivy Energy; Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) (jointly, Utilities); Public Advocates Office of the California Public Utilities Commission (Cal Advocates); and Solar Energy Industries Association (SEIA). The following parties filed reply comments on March 3, 2023: 350 Bay Area; CALSSA; Cal Advocates; SEIA; and Utilities.

On February 8, 2023, the Administrative Law Judge facilitated the VNEM/NEMA Workshop, which was followed by the issuance of a ruling on February 28, 2023 (February 28 Ruling) describing the workshop and soliciting responses to questions to complete the record on the VNEM tariff and NEMA subtariff. The following parties filed opening comments to the February 28 Ruling on March 21, 2023: Bloom Energy Corporation (Bloom Energy); California Farm Bureau Federation and Agricultural Energy Consumers Association (jointly, Agricultural Parties); California Hydrogen Business Council (CHBC); CALSSA; Center for Sustainable Energy (CSE); Cal Advocates; Clean Coalition; Doosan Fuel Cell American, Inc. (Doosan); FuelCell Energy, Inc. (FCE); GRID Alternatives (GRID); Ivy Energy; Small Business Utility Advocates (SBUA); SEIA; Sunrun, Inc. (Sunrun); and Utilities. Pursuant to a March 21, 2023 procedural email, the deadline for filing replies to the February 28 Ruling was extended to April 4, 2023. On April 4, 2023, the following parties filed reply comments to the February 28 Ruling: 350 Bay Area jointly with Center for Biological Diversity (350 Bay Area et al.); Agricultural Parties; Bloom Energy; Cal Advocates;

CALSSA; California Building Industry Association (CBIA); CSE; Clean Coalition; GRID Alternatives; Ivy Energy; Silicon Valley Leadership Group (SVLG); SBUA; SEIA; Sunrun; Utilities; and Vote Solar jointly with Sierra Club (Vote Solar et al.).

As had been planned in the Amended Scoping Memo, the Administrative Law Judge issued a ruling on April 3, 2023 soliciting comments on questions regarding the implementation of Pub. Util. Code § 769.2 (April 3 Ruling). On April 24, 2023, the following parties filed opening comments responding to the questions: Albion Power Company (Albion); CALSSA; Coalition of California Utility Employees (CUE); GRID; PowerFlex, Inc. (PowerFlex); SEIA; and Utilities. On May 4, 2023, the following parties filed reply comments: CALSSA; CUE; GRID; SEIA; and Utilities.

1.2. Submission Date

This matter was submitted on May 4, 2023 upon the filing of reply comments to the April 3 Ruling.

2. Issues Before the Commission

As described above, the issues before the Commission are as follows:

- 1) consideration of changes to the VNEM tariff;⁴
- 2) consideration of changes to the NEMA subtariff;⁵
- 3) consideration of additional or enhanced consumer protections for customers taking service under net energy metering or net billing tariffs;⁶

⁴ Amended Scoping Memo at 5. *See also* D.22-12-056 at 185, Ordering Paragraph 8, and Ordering Paragraph 9.

⁵ Amended Scoping Memo at 5. *See also* D.22-12-056 at 185 and Ordering Paragraph 11.

⁶ Amended Scoping Memo at 5.

- 4) adoption of the net billing tariff evaluation parameters and an evaluation implementation plan, and adoption of the amount of funding for the evaluation;⁷
- 5) consideration of fuel cell participation in net energy metering;⁸ and
- 6) consideration of actions needed to implement Pub. Util. Code §769.2.⁹

3. Completing the Issues for Rulemaking (R.) 20-08-020

Below is a brief overview of the six remaining issues for R.20-08-020, the determinations for each issue, and the facts and conclusions upon which the determinations were made. There being no other issues before the Commission in this proceeding, Rulemaking 20-08-020 is closed. Any outstanding motions in this proceeding are hereby denied.

3.1. Adoption of a Successor VNEM Tariff

Below, this decision concludes that it is reasonable to replace the VNEM tariff with a virtual net billing tariff that aligns with the net billing tariff adopted in D.22-12-056 but has different netting requirements for residential benefiting account holders versus nonresidential benefiting account holders. The existing VNEM tariff will remain available with no changes for enrolled customers until the end of their legacy period. For VNEM customers enrolled after April 15, 2023, D.22-12-056 decreased the legacy period of the existing VNEM tariff from 20 to nine years.¹⁰ This decision establishes a Sunset Period of 90 days for the current VNEM tariff for prospective customers. The Commission finds the costs and

⁷ D.22-12-056 at 201.

⁸ Amended Scoping Memo at 5.

⁹ Amended Scoping Memo at 5.

¹⁰ D.22-12-056 at Ordering Paragraph 9.

benefits of the new virtual net billing tariff closer to equal for all customers as compared to the costs and benefits of the current VNEM tariff.

3.1.1. History and Description of VNEM Tariff

AB 2723 (Stats. 2006, ch. 864) established additional requirements for the California Solar Initiative including codifying that not less than ten percent of the overall funds for the California Solar Initiative be used for installation of solar energy systems¹¹ on “low-income residential housing,” as defined in the bill. The Commission began to explore such a tariff in R.08-03-008, the proceeding implementing the California Solar Initiative. In that proceeding, “the Commission opted to design a program for qualifying low-income family homeowners separately from a program for multifamily affordable housing.”¹²

In D.08-10-036, the Commission adopted the Multifamily Affordable Solar Housing program (MASH) using VNEM on the basis that “it facilitates the flow of benefits to tenants from a solar energy system installed by a building owner on an affordable housing complex...without master metering hardware or site-specific infrastructure upgrades, which may be cost prohibitive.”¹³ The Commission directed Utilities to file tariffs for a virtual net metering program to “allow the electricity produced by a single solar installation to be credited to the benefit of multiple tenants in the building without requiring the system to be

¹¹ AB 2723 codified the definition of “solar energy system,” in Pub. Util. Code §2852, as a “solar energy device that has the primary purpose of providing for the collection and distribution of solar energy for the generation of electricity, that produces at least one kilowatt, and except for a solar energy device for a nonprofit building, produces not more than five megawatts, alternating current rated peak electricity, and that meets or exceeds the eligibility criteria established by the [California Energy Commission].”

¹² D.08-10-036 at 4.

¹³ D.08-10-036 at 38. In D.08-10-036, the Commission referred to VNEM as virtual net metering. For clarity, this decision will use the term VNEM.

physically connected to each tenant's meter."¹⁴ A list of the VNEM tariff requirements adopted in D.08-10-036 can be found in Attachment 1 of this decision. The same decision stated that virtual net metering could be expanded to apply to any multitenant property that installs a Generation Facility, such as a shopping mall or apartment complex.¹⁵ Hence, the Commission directed the proceeding to "explore expansion of the [VNEM] tariff to all multitenant properties that install solar energy systems,"¹⁶ not just affordable housing.

Subsequently, in D.11-07-031, the Commission established several policies for the VNEM tariff including extending the applicability to any multi-tenant or multi-meter property, with the limitation that sharing of bill credits can only occur for accounts served by a single service delivery point that receive a full retail rate credit, except for MASH participants. The Commission required that the VNEM tariff mirror MASH and allowed Utilities to propose a one-time account set up fee and a monthly administrative fee. Resolution E-4481 approved Utilities' tariff advice letters, directed in D.11-07-031, for the VNEM tariff and established additional tariff elements. Relatedly, D.17-12-022 directed Utilities to file advice letters designing a VNEM tariff for use by Solar on Multifamily Affordable Housing (SOMAH) participants, such as that used by MASH participants.

In a VNEM tariff system, the Generation Facility is installed on the building roof or nearby, often on a carport. Figure 1 depicts a simple system design, where there is: (1) one central Generation Facility, (2) multiple tenants, and (3) one service delivery point. As shown in Figure 1, the Generation Facility

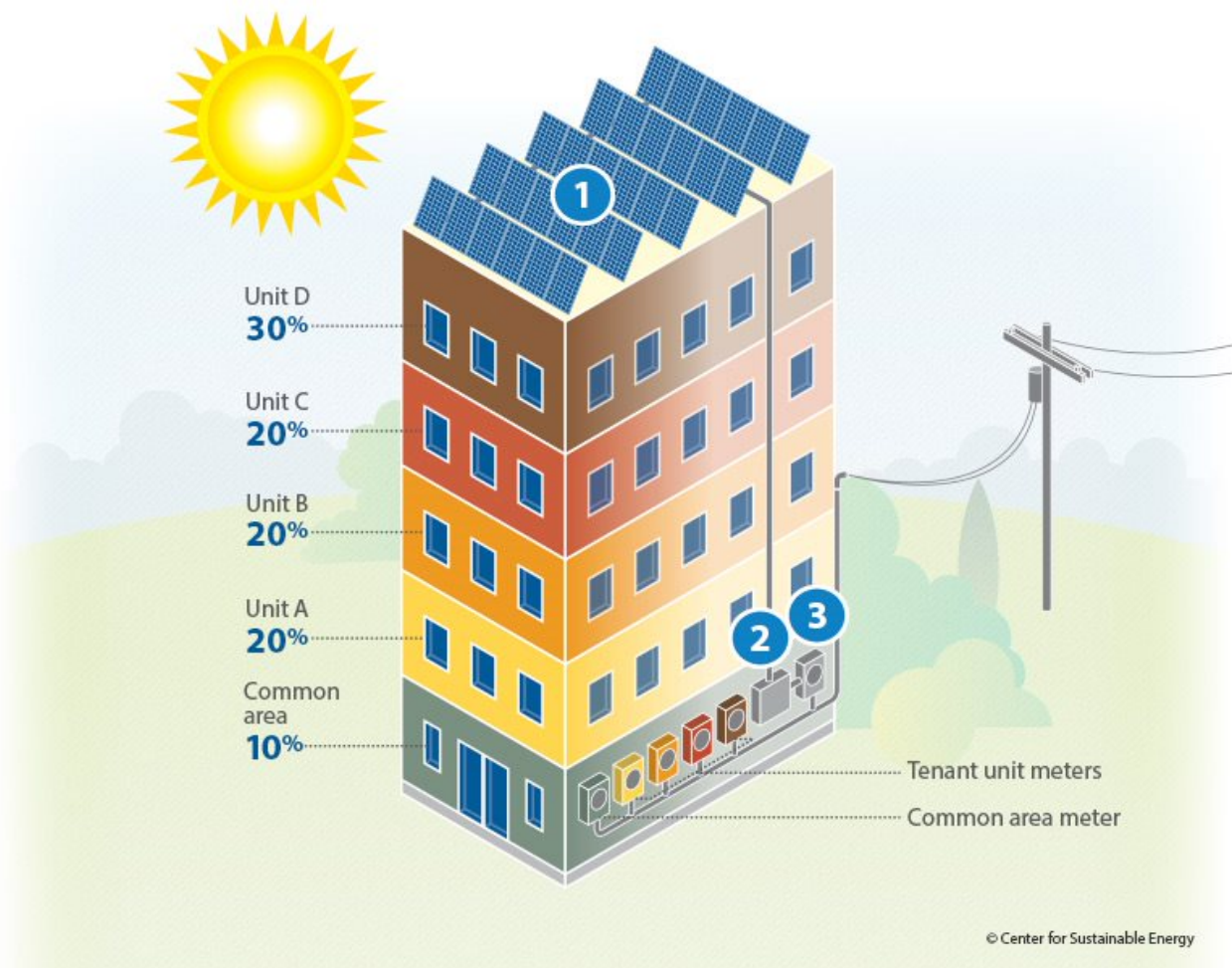
¹⁴ D.08-10-036 at 2-3.

¹⁵ D.08-10-036 at 39.

¹⁶ D.08-10-036 at Ordering Paragraph 6.

generates energy and sends it to the grid, while tenant and common area units consume energy from the grid, and the utility allocates compensation for the tenant and common area units' virtual self-generation via monthly utility bill credits. Note that in some buildings, shared equipment to access the grid causes some solar generated onsite to be consumed onsite.

Figure 1



3.1.2. Current VNEM Tariff Participation

Utilities were asked to provide statistics regarding current VNEM tariff participation. As shown by Table 1 below, a review of these statewide statistics

indicates that there is a low VNEM tariff participation rate, with most projects and capacity participating in the MASH and SOMAH programs.

Table 1¹⁷

VNEM Tariff Participation Statistics Statewide			
		Number (No.) Facilities	Megawatt (MW) Capacity
VNEM	Residential	217	4.86
VNEM	Mixed	513	19.99
VNEM	Nonresidential	225	35.09
MASH	MASH	1,626	61.69
SOMAH	SOMAH	253	16.72
	Total - All	2,834	138.35
	Total - VNEM General Market	955	59.94
	Total - VNEM for Low-Income	1879	78.41

According to individual utility VNEM tariff statistics (Tables 2 through 4), the general market VNEM tariff predominantly serves properties with mixed nonresidential and residential accounts. Projects deemed to be in disadvantaged communities (DAC) account for 20 percent to 50 percent of total VNEM tariff projects, depending upon the utility. The average size of a VNEM tariff project located in a disadvantaged community is smaller than the average size of all other VNEM tariff projects. Furthermore, only one utility, PG&E, reports any existence of the use of storage combined with solar in the VNEM tariff. PG&E states that one solar generator combined with storage is interconnected through the VNEM tariff with a capacity of 13 kilowatts (kW) of battery storage.¹⁸

¹⁷ Utilities Reply Comments to February 28 Ruling at 4-5.

¹⁸ Utilities Opening Comments to February 28 Ruling at 5.

Table 2

PG&E VNEM Tariff Participation Statistics							
PG&E		Total No. Facilities	Total Capacity MW	DAC No. Facilities	DAC Capacity MW	DAC Facilities %	DAC MW %
VNEM	Residential	178	3.52	34	0.4	19%	11%
VNEM	Mixed	191	6.99	20	0.93	10%	13%
VNEM	Nonresidential	89	17.55	14	1.73	16%	10%
MASH	MASH	857	25.08	191	5.7	22%	23%
SOMAH	SOMAH	85	4.83	7	0.35	8%	7%
	Total - All	1400	57.97	266	9.11	19%	16%
	Total - VNEM General Market	458	28.06	68	3.06	15%	11%
	Total - VNEM for Low Income	942	29.91	198	6.05	21%	20%

Table 3

SDG&E VNEM Tariff Participation Statistics							
SDG&E		Total No. Facilities	Total Capacity MW	DAC No. Facilities	DAC Capacity MW	DAC Facilities %	DAC MW %
VNEM	Residential	37	1.24	24	0.55	65%	44%
VNEM	Mixed	198	8.5	113	2.81	57%	33%
VNEM	Nonresidential	107	11.54	29	2.08	27%	18%
MASH	MASH	248	9.91	129	5.01	52%	51%
SOMAH	SOMAH	41	2.39	12	0.64	29%	27%
	Total - All	631	33.58	307	11.09	49%	33%
	Total - VNEM General Market	342	21.28	166	5.44	49%	26%
	Total - VNEM for Low Income	289	12.3	141	5.65	49%	46%

Table 4

SCE VNEM Tariff Participation Statistics							
SCE		Total No. Facilities	Total Capacity MW	DAC No. Facilities	DAC Capacity MW	DAC Facilities %	DAC MW %
VNEM	Residential	2	0.1	0	0	0%	0%

SCE VNEM Tariff Participation Statistics							
SCE		Total No. Facilities	Total Capacity MW	DAC No. Facilities	DAC Capacity MW	DAC Facilities %	DAC MW %
VNEM	Mixed	124	4.5	32	1.5	26%	33%
VNEM	Nonresidential	29	6	5	1.1	17%	18%
MASH	MASH	521	26.7	154	5.1	30%	19%
SOMAH	SOMAH	127	9.5	67	5.1	53%	54%
	Total - All	803	46.8	258	12.8	32%	27%
	Total - VNEM General Market	155	10.6	37	2.6	24%	25%
	Total - VNEM for Low Income	648	36.2	221	10.2	34%	28%

3.1.3. Party Proposals for VNEM Tariff

Ivy Energy and Utilities each offer proposals to modify the current VNEM tariff, with Utilities proposing separate residential and nonresidential options. CALSSA and SEIA recommend updating the current VNEM tariff, with each offering both similar and differing modifications. Cal Advocates recommends the Commission replace the VNEM tariff with a community solar tariff being considered in Application (A.) 22-05-022, et al. In this section, the Commission provides a brief overview of each party's proposal or modifications.

Ivy Energy proposes a Multi-Unit Shared DER¹⁹ Tariff (Shared DER Tariff), recommending that the tariff be applicable to all multitenant properties where the property is treated like a single customer with all energy consumption and energy generation netted within a 15-minute interval.²⁰ Ivy Energy proposes assigning the value of the kilowatt-hours generated based on whether the amount is greater or less than the property load. Generation up to the property load would be compensated at retail rates and additional generation in excess of

¹⁹ DER is the acronym for distributed energy resources.

²⁰ Ivy Energy Opening Comments to February 28 Ruling at 2-3 and Appendices A and B.

the property load, *i.e.*, net generation, would be compensated at a separate export rate. Ivy Energy proposes that net generation be credited at the Avoided Cost Calculator (ACC) value, with one adder to incentivize property load management and energy export and another to incentivize electric vehicle charging optimization and adaptive load management.²¹

CALSSA proposes a slightly different approach to the Shared DER Tariff in that the generation credits (for the generation to the grid) would remain in kilowatt-hours and be applied to each benefiting account.

Utilities propose two virtual net billing tariff options: one for residential and one for nonresidential customers.²² Utilities propose an annual system-wide true-up process to comply with net surplus compensation rules.²³ For residential customers, Utilities propose use of the net billing tariff ACC Plus mechanism and submit this could be used solely for low-income customers. Each residential benefiting account would receive their percentage of total retail export compensation as a credit on their bill. For nonresidential customers, Utilities recommend aligning with the net billing tariff, which provides no ACC Plus adder. Utilities contend that with their proposal, benefiting accounts “should receive the allocated value of the [Generation Facility] without complicated offsetting calculations, while having their base rate as the guidance for energy

²¹ See Section 8.5.1 of D.22-12-056 describing the adopted retail export compensation rate based on values derived from the Avoided Cost Calculator.

²² Utilities Opening Comments to February 28 Ruling at 5-12.

²³ In D.16-01-044, the Commission stated that at “the end of every year that a customer-generator has been on the [net energy metering] tariff, the credits and charges accrued over the previous 12-month billing period are trued-up. Further, the Commission explained that a “customer producing power in excess of its on-site load over the 12-month period may be eligible for ‘net surplus compensation’ under certain conditions” and that the “payment of net surplus compensation was authorized by AB 920 (Huffman), Stats. 2009, ch. 376, and implemented by the Commission in D.11-06-016.” D.16-01-044 at 13, footnote 18.

consumption.”²⁴ This results in bill credits being “divorced” from retail import rates. Thus, Utilities propose to allow benefiting accounts to take service on “any available rate schedule.”²⁵

SEIA recommends that a virtual billing arrangement be maintained along with the current definition of property and the current generation pooling.²⁶ SEIA’s modification proposal would allow property-level netting and permit customers to take service under an applicable time-of-use rate. Further, SEIA recommends the inclusion of the same ACC Plus adders adopted in D.22-12-056 for low-income customers. Asserting roadblocks to deployment of batteries, SEIA’s proposal includes a call to rectify incongruities between the Self-Generation Incentive Program and the VNEM tariff and allow the use of upstream configurations that permit multifamily properties to use existing equipment to serve tenants during outages.²⁷

Similarly, CALSSA recommends the continuance of the VNEM tariff while offering several modifications. CALSSA proposes that the VNEM tariff allow property-wide netting with a higher ACC Plus adder than those provided for low-income customers in D.22-12-056.²⁸ In line with the Ivy Energy proposal, CALSSA recommends that the total property be treated as one unit. Further, CALSSA proposes netting between generation sent to the grid and consumption resulting in two separate credits for the property, one for excess generation sent to the grid based on Avoided Cost Calculator values and credited in dollar value,

²⁴ Utilities Opening Comments to February 28 Ruling at 9.

²⁵ Utilities Opening Comments to February 28 Ruling at 8.

²⁶ SEIA Opening Comments to February 28 Ruling at 2-11.

²⁷ SEIA Opening Comments to February 28 Ruling at 14-16.

²⁸ CALSSA Opening Comments to February 28 Ruling at 6 and 9-11.

and one for reducing onsite consumption that is credited in kilowatt-hours directly to the benefiting account holders based on their rate.²⁹ CALSSA also recommends adoption of two additional proposals regarding eligibility and process issues: (1) ensuring a customer who is eligible for the California Alternate Rates for Energy (CARE) program remains on the rate when a VNEM tariff property owner has taken over the account, and (2) allowing a new tenant moving into a prior VNEM tariff-enrolled unit to automatically receive the same credit as the previous VNEM tariff-enrolled tenant.³⁰ CALSSA's proposal aligns with SEIA's proposal in that CALSSA also proposes allowing VNEM tariff customers to take service on any eligible time-of-use rate.³¹

Clean Coalition recommends the continuation of a VNEM tariff structured around virtual billing but with the addition of an incentive to encourage solar generation paired with storage.³² Clean Coalition also calls for these storage devices to be allowed to charge from the grid prior to announced outages and prior to Flex Alerts.³³

Lastly, Cal Advocates recommends the Commission wait until a decision in the Green Access Tariff proceeding (A.22-05-022) has been adopted to make any determination on the VNEM tariff in this proceeding.³⁴

²⁹ CALSSA Opening Comments to August 2, 2023 Proposed Decision at 3.

³⁰ CALSSA Opening Comments to February 28 Ruling at 7-8.

³¹ CALSSA Opening Comments to February 28 Ruling at 11-12.

³² Clean Coalition Opening Comments to February 28 Ruling at 2-3.

³³ Clean Coalition Opening Comments to February 28 Ruling at 3.

³⁴ Cal Advocates Opening Comments to February 28 Ruling at 2-4.

3.1.4. VNEM Tariff Threshold Matters

Prior to considering the elements of the successor VNEM tariff, the Commission addresses several threshold matters where parties disagree: (1) whether to delay a decision in this proceeding on the VNEM tariff until consideration of the Green Access Tariff proposals in A.22-05-022; (2) the customer composition of the VNEM tariff; (3) the cost effectiveness of the VNEM tariff; (4) whether VNEM tariff customers create a cost shift; (5) customer billing practices; and (6) self-consumption.

3.1.4.1. VNEM Tariff Threshold Matters: Relationship between the VNEM tariff and Green Access Programs

Regarding the issue of delaying a decision on the VNEM tariff, Cal Advocates asserts that issues related to Green Access Programs and the VNEM tariff, as well as the NEMA subtariff are “closely intertwined” and notes that all three programs were created to expand access of renewable energy resources to ratepayers.³⁵ With respect to the VNEM tariff, Utilities contend the objective of expanding access is where the similarities between the tariffs end because the resources involved are very different. Utilities maintain Green Access Programs provide crediting mechanisms to customers receiving solar generation from wholesale resources while VNEM tariffs deal with resources that have some physical and geographic relationship to the customer.³⁶ Ivy Energy cautions the Commission not to depend on the Green Access Programs to successfully reach renters. Ivy Energy maintains both the VNEM tariff and Green Access Programs must be made available to customers as distinct options to renters, noting that

³⁵ Cal Advocates Opening Comments to February 28 Ruling at 3.

³⁶ Utilities Reply Comments to February 28 Ruling at 2.

the VNEM tariff provides access to onsite clean energy while Green Access Programs provide a solution to customers without access to onsite distributed energy resources.³⁷

The Commission agrees that the VNEM tariff, as well as the NEMA subtariff, are distinct options from the Green Access Programs. The Commission finds no reason to delay a determination on the VNEM tariff. Accordingly, the Commission should move forward with a determination on the future of the VNEM tariff.

**3.1.4.2. VNEM Tariff Threshold Matters:
Customer Composition**

With respect to the customer composition of the existing VNEM tariff, Utilities point to participation data and assert that VNEM tariff enrollees are predominantly nonresidential customers.³⁸ Based on the data provided by Utilities, this assertion is misleading. Looking at participation data in Table 2 through Table 4 above, Utilities have indicated three categories of customers: residential, mixed, and nonresidential. Utilities define the mixed category as a VNEM tariff arrangement that includes both residential and nonresidential accounts. Further, Utilities have stated that “even assuming that all mixed residential and nonresidential arrangements predominantly provide benefits to residential accounts,” only 24.85 MW of capacity are provided for the benefit of multifamily tenants.³⁹

³⁷ Ivy Energy Reply Comments to February 28 Ruling at 15. *See also* 350 Bay Area and Center for Biological Diversity Reply Comments to February Ruling at 2-3, and SEIA Reply Comments to February 28 Ruling at 7-8.

³⁸ Utilities Opening Comments to February 28 Ruling at 4-5 and Utilities Reply Comments to February 28 Ruling at 4-6.

³⁹ Utilities Reply Comments to February 28 Ruling at 5.

This decision does not accept Utilities' assertion that the VNEM tariff predominantly serves nonresidential customers. This assertion is based solely on capacity size and utility data shows that nonresidential facilities are generally larger than residential facilities. In looking at the number of facilities, and therefore the number of customers served, Table 1 indicates there are nearly the same number of residential facilities as compared to nonresidential facilities, 217 versus 225 facilities. If you factor in the 513 facilities that are mixed, which Utilities state includes both residential and nonresidential,⁴⁰ that results in 76 percent of the total number of facilities serving residential and mixed residential, showing that the general market VNEM tariff predominantly serves residential customers.

As a result of this discussion, the Commission finds that Utilities should improve data collection to better inform the Commission and stakeholders on the accurate customer composition of VNEM tariff and the successor tariff participation. Accordingly, after conferring with Energy Division, Utilities shall submit a joint Tier 1 advice letter proposing improvements in defining the composition of VNEM tariff participants to ensure accuracy in statements and data request responses. This advice letter shall be submitted no later than January 31, 2024.

As it is an objective of this proceeding to increase access to renewable energy option for low-income households,⁴¹ the Commission encourages developers to focus on increasing the number of projects serving multifamily rental properties. The adopted successor VNEM tariff will also focus on

⁴⁰ Utilities Opening Comments to August 2, 2023 Proposed Decision at 4. Utilities note that an example of this "would be multi-unit housing with retail establishments also on the premises or when 'common areas' are offices or other nonresidential dwellings."

⁴¹ See D.22-12-056 at 92.

increasing the number of multifamily rental properties enrolling in the VNEM tariff.

3.1.4.3. VNEM Tariff Threshold Matters: Cost-Effectiveness

Moving on to the matter of benefits and costs, parties disagree on whether the VNEM tariff is cost effective. In response to the February 28 Ruling, parties were asked to describe the benefits and costs of the VNEM tariff that distinguish it from the NEM 2.0 tariff. This section discusses party comments on benefits and costs and overall cost-effectiveness of the VNEM tariff.

First, in looking at the benefits of the VNEM tariff, comments indicate three positions: (1) Ivy Energy, CALSSA, Vote Solar/Sierra Club, and SEIA assert that the VNEM tariff provides different quantifiable benefits as compared to the NEM 2.0 tariff; (2) Utilities concede that the VNEM tariff has slightly but not remarkably different quantifiable benefits from the NEM 2.0 tariff; and (3) Cal Advocates originally contended that the VNEM tariff has no different quantifiable benefits from the NEM 2.0 tariff, but has since changed its position to agree with Utilities.⁴²

Parties submit that there are several VNEM tariff benefits distinguishable from the NEM 2.0 tariff including, for example, the reduction of customer demand from the grid, reduction of electricity system-wide costs, an increase of resiliency, and an increased access to electric vehicle charging.⁴³ However, the Commission agrees with Utilities that no party presented quantifiable benefits,

⁴² Cal Advocates Reply Comments to February 28 Ruling at 2.

⁴³ See, for example, Ivy Energy Opening Comments to February 28 Ruling, Appendix D at 41. See also CALSSA Opening Comments to February 28 Ruling at 1-2.

such that can be measured in a cost-effectiveness analysis.⁴⁴ Even SEIA recognizes that Ivy Energy's list of benefits is qualitative.⁴⁵ However, the Commission agrees that there are several unquantifiable benefits in addition to those listed above, including enabling renters to have access to solar; many renters are low-income households and small businesses.⁴⁶

While unable to find any quantifiable evidence of distinguishable benefits, the Commission finds that Generation Facilities on a VNEM tariff that serve residential customers provide slightly higher grid benefits than solar-only net energy metering Generation Facilities on the NEM 2.0 tariff simply because the residential VNEM tariff Generation Facility serves multiple residential customers. The Commission agrees with Ivy Energy that a multitenant building on a VNEM tariff has multiple loads served by the same Generation Facility, as discussed further in section 3.1.4.6 below. Further, the Commission also finds that because the VNEM tariff provides renters and customers in disadvantaged communities improved access to customer generation, the tariff assists the Commission in meeting the objective of increasing equity, as required by Pub. Util. Code §2827.1.

Moving on to a discussion of the costs of the VNEM tariff, the Commission finds that parties provided potential distinguishable VNEM tariff costs as compared to the NEM 2.0 tariff, but few cost differences that are quantifiable. Utilities contend bill savings for VNEM tariff customers “are *likely slightly* [emphasis added] lower” than for NEM 2.0 tariff customers, “but not by a

⁴⁴ Utilities Reply Comments to February 28 Ruling at 3.

⁴⁵ SEIA Reply Comments to February 28 Ruling at 2-3.

⁴⁶ CALSSA Opening Comments to February 28 Ruling at 1 and 2.

significant margin."⁴⁷ Utilities also offer that the complex billing needs for benefiting customers in the VNEM tariff, in addition to customer turnover and the need for manual valuation, lead to VNEM tariff billing costs that are higher than the billing costs of the NEM 2.0 tariff, but with a minimal impact on the overall cost-effectiveness analysis.⁴⁸ Utilities provided no data to support these claims. Ivy Energy asserts that VNEM tariff systems **may** have greater interconnection costs than a typical net energy metering system, noting that VNEM tariff systems are similar in size to commercial net energy metering systems.⁴⁹ CALSSA asserts that VNEM tariff systems require more work to design and develop, need major additional equipment and labor to provide resiliency benefits, and are subject to a new public works law.⁵⁰ Neither Ivy Energy nor CALSSA provided data to support these claims.

The record contains two quantifiable cost differences of the VNEM tariff versus the NEM 2.0 tariff. First, customers on the current VNEM tariff pay non-bypassable charges based on their consumption from the grid, without any netting.⁵¹ Second, based on data CALSSA obtained from PG&E, multiunit tenants sharing a single delivery point generally pay more than their fair share of grid costs.⁵² However, the record does not contain the specifics of this, *i.e.*, the number of benefiting accounts that pay more than their fair share. Based on the

⁴⁷ Utilities Opening Comments to February 28 Ruling at 3.

⁴⁸ Utilities Opening Comments to February 28 Ruling at 3.

⁴⁹ Ivy Energy Opening Comments to February 28 Ruling at 11-13.

⁵⁰ CALSSA Opening Comments to February 28 Ruling at 3-4.

⁵¹ Utilities Opening Comments to February 28 Ruling at 2.

⁵² CALSSA Opening Comments to February 28 Ruling at 6.

record, the Commission finds that the current VNEM tariff provides slightly more quantifiable benefits as compared to the NEM 2.0 tariff.

3.1.4.4. VNEM Tariff Threshold Matters: Cost Shift Per VNEM Customer

Moving on to an analysis of the cost shift of the current VNEM tariff versus the NEM 2.0 tariff, as discussed below the record shows that a cost shift exists for the VNEM tariff. For residential VNEM tariff customers it is less than the cost shift in the NEM 2.0 tariff but for nonresidential VNEM tariff customers it is greater than the cost shift in the NEM 2.0 tariff.

In response to the February 28 Ruling, parties disagreed on the extent of a cost shift caused by customers enrolled on the VNEM tariff. Utilities contend that while there are differences between the cost effectiveness assumptions of the VNEM tariff in comparison with the NEM 2.0 tariff, “none of these are sufficient to change the conclusions that [D.]22-12-056 reached regarding the standard tariff.”⁵³ Similarly, Cal Advocates maintains that the “VNEM [tariff] creates a cost burden on non-adopting customers by compensating customers at retail rates.”⁵⁴ Cal Advocates asserts that SCE and PG&E estimate that the 6,273 customers on the VNEM tariff caused a cost shift of \$26 million for the year 2022.⁵⁵

Ivy Energy argues that Utilities and, therefore, Cal Advocates’ estimate is flawed and presents its own analysis concluding that there is no cost shift. Ivy Energy claims that the export price should be equal to the average avoided rate

⁵³ Utilities Opening Comments to February 28 Ruling at 1.

⁵⁴ Cal Advocates Opening Comments to February 28 Ruling at 6.

⁵⁵ Cal Advocates Opening Comments to February 28 Ruling at 6.

to make the VNEM tariff cost effective.⁵⁶ The Commission finds that Ivy Energy errs in its cost shift analysis. Ivy Energy's modification to set "avoided cost" equal to the "average avoided retail rate" is not correct; the "avoided cost" comes directly from the Avoided Cost Calculator, which cannot be changed in this proceeding.⁵⁷

In Table 5 through Table 7 below, this decision presents Utilities' cost shift analysis, Ivy Energy's analysis, and the Commission's analysis, which has been modified to account for the correct avoided cost from the Avoided Cost Calculator.⁵⁸ Table 5 uses the NEM 2.0 tariff cost shift values divided by system size used in the June 15, 2021 analysis: PG&E at 4.7 kW-DC for residential and 10.7 kW-DC for nonresidential customers, and SCE and SDG&E at 4.4 kW-DC for residential and 9.9 kW-DC for nonresidential customers.

After adjusting non-bypassable charges to a more appropriate average of \$0.03/kilowatt-hour (kWh), the Commission determines an annual cost shift of \$365/kW to \$385/kW for the current VNEM tariff in PG&E territory, which is

⁵⁶ Ivy Energy Reply Comments to February 28 Ruling at Appendix A.

⁵⁷ "The avoided costs determined in the Avoided Cost Calculator are the utilities' marginal costs of providing electric service to customers. Those costs can be avoided when the demand for energy decreases because of distributed energy resources, and are, thus, the benefits of using distributed energy resources. The avoided costs determined in the Avoided Cost Calculator should not be confused with the term "avoided cost" used in federal law, where avoided cost is the cost of energy or capacity to a purchasing utility of the next increment of that wholesale energy or capacity." *See* D.22-12-056 at 59-60. *See* also 18 CFR § 292.101 defining "avoided cost" as used in PURPA.

⁵⁸ The source for the NEM 2.0 tariff column for Tables 5 through 7 is E3 and Verdant's "Cost-effectiveness of NEM Successor Rate Proposals under Rulemaking 20-08-020, A Comparative Analysis" June 15, 2021, at Table 4 'Results for Residential Solar, 2023 Non-CARE' and Table 12 'Results for Commercial Solar, 2023 Non-CARE.' The source for the VNEM columns for Tables 5 through 7 is Ivy Energy, Amended Reply April 7th, Ivy Cost Shift Analysis Excel.xlsx - Google Sheets on page 20; retrieved from: <https://docs.google.com/spreadsheets/d/1Ic5jr6YaWtoZ6mwJ0a0PsLKkwrXbaXRG/edit#gid=210927578> (last visited June 16, 2023).

similar to the NEM 2.0 tariff capacity-based cost shifts. The Commission’s analysis then divides the cost shift across the total number of benefiting accounts, which results in an annual cost shift of less than \$500 per customer for residential customers and over \$15,300 per customer for nonresidential customers in PG&E territory. For comparison, the estimated cost shift for all NEM 2.0 tariff customers across all three utilities is an average of \$1,857 per customer for residential customers and \$3,171 per customer for nonresidential customers.

Based on this analysis, the Commission finds that the VNEM tariff for residential customers causes a significantly smaller cost shift per customer than the NEM 2.0 tariff. In contrast, the VNEM tariff for nonresidential customers concentrates benefits to comparatively few customers, on average.

**Table 5
Cost Shift Per kW (to non-participants)**

	VNEM (\$/kW)	NEM 2.0 (\$/kW)
Residential Year 1 Cost Shift		
PG&E	\$365.5/kW	\$386/kW
SCE	-	\$292.5/kW
SDG&E	-	\$561/kW
Nonresidential Year 1 Cost Shift		
PG&E	\$385/kW	\$335/kW
SCE	-	\$202/kW
SDG&E	-	\$397/kW

Table 6
Cost Shift Per Enrollee (to non-participants)

	VNEM (\$/Enrollee) ⁵⁹	NEM 2.0 (\$/Enrollee)
Residential Year 1 Cost Shift		
PG&E	\$497	\$1,817
SCE	-	\$1,287
SDG&E	-	\$2,467
Nonresidential Year 1 Cost Shift		
PG&E	\$15,134	\$3,586
SCE	-	\$2,001
SDG&E	-	\$3,927

Table 7
VNEM Tariff Cost Shift Data for PG&E Territory

	VNEM Residential	VNEM Nonresidential
Annual Cost Shift (nominal)	\$8,490,826	\$14,044,025
Capacity (kW)	23,230	36,530
Enrollees (Number of)	17,086	928
Cost Shift Per kW	\$365.51	\$384.45
Cost Shift Per Enrollee	\$496.95	\$15,133.65

3.1.4.5. VNEM Tariff Threshold Matters: Customer Billing Practices

In response to the February 28 Ruling, CALSSA discussed a proposed modification to the VNEM tariff, which would allow property owners to receive a discount on behalf of their tenants who are enrolled in the CARE program. The proposal, originally requested in testimony, noted that “it is common for property owners to take over customer accounts when installing VNEM [tariff] systems and to incorporate utility costs into rent. Currently, this results in CARE accounts losing their CARE status, causing property owners to charge customers

⁵⁹ The VNEM tariff cost shift per enrollee is an average. However, the actual renewable generation credit allocation per customer is not fixed and is set by the property owner.

discounted rates while the property owner is not actually getting a discount from the utility.”⁶⁰

Utilities responded, asserting that property owners taking over customer accounts is an unlawful business practice, specifically in that “[Pub. Util. Code §]218(b)(1) does not authorize the sale of generation to tenants; it only authorizes ‘use.’”⁶¹ Utilities contend that because the tenant benefiting accounts also import electricity from the grid, “a building owner taking over tenant benefiting accounts would be reselling power delivered by the utility in violation of Electric Rules 1 and 18.”⁶²

CALSSA’s comments bring to light what CALSSA perceives is a common practice whereby multifamily property owners, to consolidate electrical bills after a solar installation, are permanently switching their tenants’ electrical accounts to make the property owner the customer of record. When this occurs, it is the understanding of the Commission that property owners or third-party service providers are directly charging tenants for variable monthly electrical bills which may include their solar offsets and retail export credits.⁶³

This practice does not comply with VNEM tariff requirements. As written in PG&E’s current VNEM tariff, a property owner should only become the

⁶⁰ CALSSA Opening Comments to February 28 Ruling at 7 citing CSA-01 at 26-27.

⁶¹ Utilities Reply Comments to February 28 Ruling at 9-10 and also citing Pub. Util. Code §218(a).

⁶² Utilities Reply Comments to February 28 Ruling at 9 citing PG&E Electric Rule 1 at Sheet 9 and PG&E Electric Rule 18.

⁶³ In comments to the proposed decision, Ivy Energy clarified that their business model does not “‘permanently switch’ or ‘take over’ ownership of any tenant electrical accounts.” Further, Ivy Energy states that “[m]ultifamily building owners that use [Ivy Energy’s] service are not forcing tenants to give up their utility accounts.” (Ivy Energy Opening Comments to Proposed Decision at 6.)

“customer of record” for a tenant account when the tenant unit is vacant. The current VNEM tariff specifies that a qualified customer is “a tenant/occupant in the Eligible VNEM Development with a separately metered account, which received credit from the [Generation Facility].” The Commission finds that if the tenant gives up their separately metered account for bill consolidation under the property owner, the customer is not in compliance with the VNEM tariff. Customer access to the VNEM tariff as well as the successor VNEM tariff is dependent on the tenant retaining account ownership. Relatedly, the Commission concludes that CALSSA’s proposal to permit a customer’s CARE discount to be used by the property manager also does not comply with the tariff and is denied. Finally, this decision adds that Pub. Util. Code §780.5 requires that after July 1, 1982, all electric and gas metering in multifamily buildings must be individually metered.

In comments to the proposed decision, Ivy Energy asserts that the proposed decision errs by relying on Utilities’ argument regarding Pub. Util. Code §218(b)(1).⁶⁴ The Commission’s determination does not rely on Utilities’ argument but rather on the existing VNEM tariff. Further, the decision is simply presenting Utilities’ arguments.

3.1.4.6. VNEM Tariff Threshold Matters: Self Consumption

As shown in Figure 1 above, for VNEM tariff customers, the renewable generation in multitenant properties has a generation output meter and, except in certain cases, sends all generation produced to the grid. In comparison, in the net billing tariff, customers are encouraged to use generation produced onsite and behind-the meter, (i.e., self-consumption). In the net billing tariff, customers

⁶⁴ Ivy Energy Opening Comments at 6-7.

are not compensated for all generation produced, but only the production minus self-consumption. In the net billing tariff, generation and self-consumption occur behind the meter and Utilities only have knowledge of generation sent to, and consumption from, the grid. For multitenant properties on the VNEM tariff, Utilities have knowledge of both the system generation with a generation output meter and tenant consumption (or usage) with import meters.⁶⁵

Utilities state that “the Avoided Cost Calculator implicitly assumes generation is intended to offset onsite consumption.”⁶⁶ In response, CALSSA asserts that the Avoided Cost Calculator value “assumes generation is located close to load rather than having to be transmitted significant distances over distribution and transmission infrastructure, but that is different from onsite consumption.”⁶⁷

In this proceeding, Ivy Energy contends that in multitenant properties tenants “are likely to consume a much higher percentage of generation onsite compared to a single facility net energy metering system for several reasons.”⁶⁸ Ivy Energy asserts that, because a multitenant building on a VNEM tariff has dozens of unique loads onsite that can be served by the same generator onsite before exporting to the grid, the tenants tend to consume a much higher percentage of generation onsite.⁶⁹ Ivy Energy does not have data to confirm this, instead looking to the Commission to collect this data. However, Ivy Energy

⁶⁵ In Commission virtual net energy metering tariffs and decisions, the generation output meter is often referred to as the “net generation output meter (NGOM). However, this is a nominal term as there is only generation behind these meters.

⁶⁶ Utilities Opening Comments to February Ruling at 2 and 13.

⁶⁷ CALSSA Reply Comments to February 28 Ruling at 2.

⁶⁸ Ivy Energy Opening Comments to February 28 Ruling at 5.

⁶⁹ Ivy Energy Opening Comments to February 28 Ruling at 5.

provides a preliminary analysis of five representative properties, which Ivy Energy asserts “shows that the average load demanded from the grid can be reduced 30 percent to 70 percent on the properties with onsite solar under the VNEM tariff, and even greater demand reductions occur when battery storage systems are installed.”⁷⁰

Ivy Energy relies on Kirchhoff’s Law, which Ivy Energy argues “shows that energy produced onsite is consumed onsite and only the production in excess of property load is exported to the grid.”⁷¹ The Commission acknowledges that when generation and customer meters share a physical connection to the grid, either at the meter bank through a shared bus bar or at the transformer, self-consumption can occur. In fact, based on PG&E data provided by CALSSA, the Commission finds that about half (48 percent) of VNEM tariff generation and load share a transformer, which indicates that onsite consumption can occur.⁷² However, due to the complexity and cost of installing generation at multitenant properties, the Commission established the policy that renewable generation installed on multitenant properties does not require onsite consumption.

Previously, the Commission established virtual self-consumption to approximate net energy metering self-consumption, enabling equal treatment without burdening multitenant properties from costly and resource-heavy installations. Further, in D.22-12-056, the Commission made it easier for multitenant properties to install renewable generation anywhere on a property,

⁷⁰ Ivy energy Opening Comments to February 28 Ruling at 6.

⁷¹ Ivy Energy Opening Comments to February 28 Ruling at 30.

⁷² CALSSA Reply Comments to February 28 Ruling at 3.

which decreases the likelihood of incidental self-consumption.⁷³ The Commission concludes that the design of the adopted successor VNEM tariff should not be based on a presumption of onsite self-consumption.

3.1.5. The Successor VNEM Tariff

Having addressed the threshold matters regarding the VNEM tariff, this decision turns to the specifics of the adopted VNEM tariff. As discussed below, the Commission finds that, as had been the case with the net billing tariff adopted in D.22-12-056, the adopted successor VNEM tariff should result in a balanced approach to meeting the requirements of Pub. Util. Code §2827.1 and this proceeding's adopted guiding principles.⁷⁴

Previously, this decision found that there are distinguishable costs and benefits of the VNEM tariff in comparison to the NEM 2.0 tariff. However, a majority of these costs and benefits are not quantifiable, and therefore the Commission finds these distinguishable costs and benefits cannot be quantified in a cost-effectiveness analysis. Because the quantifiable costs and benefits of the VNEM tariff are not remarkably different from the quantifiable costs and benefits of the NEM 2.0 tariff, the Commission determines it reasonable to rely on the cost-effectiveness results of NEM 2.0 (as determined in the Lookback Study and

⁷³ D.22-12-056 at Ordering Paragraph 9, which revised the VNEM tariff "to allow multiple solar arrays on one property to be treated as one generator, with credits allocated across the property."

⁷⁴ The Commission adopted eight guiding principles to assist in the development and evaluation of a successor to the current net energy metering tariff: (a) comply with Pub. Util. Code §2827.1; (b) ensure equity among customers; (c) enhance consumer protections for customer-generators; (d) fairly consider all Generation Facility technologies; (e) be coordinated with the Commission and California's energy policies; (f) be transparent and understandable to customers; (g) maximize the value of customer-sited renewable generation; and (h) consider competitive neutrality amongst load serving entities.

affirmed in D.22-12-056) and find that the current VNEM tariff is not cost-effective.

As previously determined, the VNEM tariff can assist the Commission in meeting the objective of improving equity, as required by Pub. Util. Code §2827.1. However, the Commission must balance the objective of improving equity with other objectives required by the statute and the adopted guiding principles. For example, while the Commission finds it reasonable to offer a successor VNEM tariff option in addition to the net billing tariff, the successor must improve upon its cost-effectiveness. Further, as pointed out by Utilities, the Commission has already determined that basing retail export compensation rates on retail import rates does not comply with Pub. Util. Code §2827.1.⁷⁵ For these reasons, the Commission should not adopt any recommendation to maintain the status quo VNEM tariff for the general market.

3.1.5.1. Overview of Successor VNEM Tariff Proposals and General Party Positions

Parties offer two proposals for a VNEM tariff: Ivy Energy's DER Shared Tariff and Utilities' virtual net billing tariff. The benefits of and arguments against each of these are discussed below.

The foundation of the DER Shared Tariff is property-level netting of consumption and generation, versus calculating consumption charges and allocated generation credits separately for each benefiting account in the current VNEM tariff. In the DER Shared Tariff, all generation and all consumption are balanced in 15-minute intervals. Ivy Energy proposes that the generation at the property would be assigned a value for the kilowatt-hour generation based on whether that generation is greater than or less than the total property load

⁷⁵ Utilities Reply Comments to February 28 Ruling at 9.

(within the time interval). If the generation during that interval is less than or equal to the total property load during that interval, the value of the generation would be compensated on a retail basis for that interval on a single default residential time-of-use schedule. Should the generation exceed the total property load at that interval, the difference would be sent to the grid, and the value of the excess generation compensated at the retail export compensation rate for that interval on a single default time-of-use schedule.

Ivy Energy contends property netting is the necessary precursor to optimizing solar, storage, demand response and electric vehicle charging on a multi-unit property and results in a “more predictable and smoother demand curve.”⁷⁶ Benefiting accounts would receive bill credits based on the percentage allocation of the onsite Generation Facility. Ivy Energy also suggests the addition of: (1) adjustments to the export rate of certain intervals to incentivize property load management and energy export and (2) an adder to incentivize electric vehicle charging optimization and adaptive load management.

Many parties advocate for property-wide netting. SVLG argues that it is “not appropriate to dissociate all generation at the NGOM from other loads on that property” and label that as an export.⁷⁷ Sierra Club and Vote Solar contend it would ensure benefiting accounts are able to retain the value of solar generation consumed onsite and would more accurately match how electricity generated is being physically consumed by loads throughout the property.⁷⁸ SBUA also supports property-level netting and agrees with SEIA that “onsite generation

⁷⁶ Ivy Energy Opening Comments to February 28 Ruling at 30.

⁷⁷ NGOM is the acronym for Net Generation Output Meter. SVGL Reply Comments to February 28 Ruling at 2.

⁷⁸ Sierra Club and Vote Solar Reply Comments to February 28 Ruling at 4.

that serves customer load has a higher value to customers because it offsets the need to purchase as much energy from the utility at a retail basis.”⁷⁹

In opposition to the DER Shared Tariff, Utilities contend the netting proposals would be “overly complex to implement and administer, as dynamic allocations are not done on this level of granularity.”⁸⁰ Focusing on costs, Utilities assert initial start-up costs and delays will be higher for property netting and note that all benefiting accounts would have to be on the same billing cycle creating more costs. With respect to customer concerns, Utilities assert property-level net billing will cause confusion and equity issues. For example, Utilities assert the proposed tariff would be confusing to customers, noting that “an individual benefiting customers’ bill would become a function of every other customer’s usage.”⁸¹ Utilities question whether it is fair to a customer who works outside of the house, if a customer who works from home receives a higher benefit because energy usage is netted against generation. Turning to the guiding principle of meeting California’s energy policies, Utilities maintain that “there is less incentive for a tenant to conserve energy for their neighbors’ potential credits or in general.”⁸²

Turning to the virtual net billing tariff, Utilities offer this proposal as an alignment with the net billing tariff. In their proposal, a Generation Facility is compensated for each kWh at the Avoided Cost Calculator value, with an ACC Plus adder as a glidepath for residential customers only and based on a nine-year

⁷⁹ SBUA Reply Comments to February 28 Ruling at 3 citing to SEIA Opening Comments to February 28 Ruling at 6.

⁸⁰ Utilities Reply Comments to February 28 Ruling at 6.

⁸¹ Utilities Reply Comments to February 28 Ruling at 6.

⁸² Utilities Reply Comments to February 28 Ruling at 7.

payback. Each benefiting account would receive a percentage of the retail export compensation as a bill credit, which can offset any portion of the bill. Utilities propose that a benefiting account could take service on any currently available rate schedule and non-bypassable charges would be based on metered consumption from the grid. Utilities submit this proposal would be easy for customers to understand and easy for Utilities to administer, as there is no netting for monthly billing. Utilities would perform an annual true-up to determine whether the aggregate onsite generation exceeded the aggregated usage of the benefiting accounts, to comply with net surplus compensation rules.

SEIA opposes the virtual net billing tariff contending it would result in all benefiting accounts losing the entirety of the value of their behind-the-meter consumption.⁸³ SEIA asserts that even benefiting accounts receive compensation for the differential between what an individual tenant consumes minus the solar production allocated to that specific meter, the Utilities' proposal still denies the benefiting account some of the value of their behind-the-meter consumption.⁸⁴ SEIA maintains that only the amount of energy actually exported should be valued at the Avoided Cost Calculator-based export compensation rate.⁸⁵

3.1.5.2. Consideration of the DER Shared Tariff

The Commission agrees that the DER Shared Tariff provides value to its participants by reflecting the self-consumption that can occur for properties with a shared transformer, as discussed in Section 3.1.4.6. However, the Commission finds that the DER Shared Tariff, and especially property netting, presents environmental, economic, equity, and legal conflicts or barriers.

⁸³ SEIA Reply Comments to February 28 Ruling at 3-4.

⁸⁴ SEIA Reply Comments to February 28 Ruling at 4.

⁸⁵ SEIA Reply Comments to February 28 Ruling at 5.

With respect to environmental barriers, first and foremost, property netting would remove any price signal to individual benefiting account holders. As Ivy Energy describes in its proposal, netting is conducted on the property level, not the individual unit level. The Commission has already determined that only properties with a shared transformer can capture actual self-consumption. While Ivy Energy contends the DER Shared Tariff will allow benefiting accounts to avoid peak pricing and export to the grid when more valuable to do so, by compensating all benefiting accounts at the residential rate instead of the Avoided Cost Calculator value, the DER Shared Tariff does not send the proper price signals to benefiting accounts. Furthermore, as discussed by Utilities, because credits vary based on actual energy consumption of the entire property, it will be difficult to predict the cost of using energy during generation hours.⁸⁶ Benefiting accounts do not know the best times to use energy or abstain from using energy. The variability of the DER Shared Tariff would create a barrier to the Commission and California meeting their environmental objectives.

Turning to economic conflicts and barriers, Utilities assert that the DER Shared Tariff will lead to increased costs due to more granular billing, *i.e.*, 15-minute interval allocations. As Utilities point out, the DER Shared Tariff would require dynamic allocations not currently conducted at this level of granularity. Utilities highlight that the current VNEM tariff costs are higher than the NEM 2.0 tariff costs “because of complexities that arise from alignment of the billing cycle for benefiting customers in VNEM [tariffs], customer turnover, and necessitation of manual validation.”⁸⁷ For the DER Shared Tariff, all benefiting

⁸⁶ Utilities Reply Comments to February 28 Ruling at 7.

⁸⁷ Utilities Opening Comments to February 28 Ruling at 3.

accounts would need to be on the same billing cycle, resulting in additional manual billing steps when benefiting accounts change owners and leading to higher costs.⁸⁸ Utilities also contend that the increased variability and complexity of the DER Shared Tariff could lead to increased calls at customer call centers, which would result in increased costs.⁸⁹ The Commission agrees with Utilities and finds that the DER Shared Tariff will lead to increased cost.

With respect to equity concerns, the Commission finds that the DER Shared Tariff could result in inequities for benefiting accounts. As parties have indicated, residential multitenant properties are predominantly lower-income households, and predictability and low bills are crucial. As the Commission has already determined, because credits in the DER Shared Tariff will vary based on actual energy consumption of the entire property, it will be difficult for an individual household to predict the cost of using energy during generation hours. Benefiting accounts under the DER Shared Tariff would not know the best times to use energy or abstain from using energy. This lack of predictability and ability to ensure low bills limits equity, a requirement of this tariff. On a related matter, the Commission does not agree with Utilities that the DER Shared Tariff could create inequity between benefiting accounts. Utilities question whether it is fair that a benefiting account holder who uses more energy during the day would receive higher benefits from the DER Shared Tariff compared to a benefiting account holder who does not work from home. However, Ivy Energy explains that the proposal would allow a utility to add up all the bill credits gained through property-level netting and distribute them, with a pre-allocated

⁸⁸ Utilities Reply Comments to February 28 Ruling at 7.

⁸⁹ Utilities Reply Comments to February 28 Ruling at 7.

percentage to each benefiting account, which is the current practice. Hence, if a participating tenant is using energy coincident with generation, the tenant is earning more bill credits for **all** participating tenants.⁹⁰

Lastly, the Commission concludes that the property netting component of the DER Shared Tariff potentially conflicts with Pub. Util. Code §780.5, which requires “every residential unit in an apartment house or similar multiunit residential structure, condominium, and mobile home park for which a building permit has been obtained on or after July 1, 1982, other than a dormitory or other housing accommodation provided by any postsecondary educational institution for its students or employees and other than farmworker housing, to be individually metered for electrical and gas service.” The Commission recognizes that, in the DER Shared Tariff, benefiting account holders would maintain an electric meter. However, this tariff proposal removes the price signal from customers resulting in treating the property like a master-metered property, which conflicts with the intention of Section 780.5: to allow tenants to adjust their own behavior (*e.g.*, load shifting or conservation) based on price signals.

In addition to the conflicts and barriers described above, the Commission also finds that the DER Shared Tariff will cause a cost shift similar to that of the current VNEM tariff. The property netting and accounting of onsite consumption and generation could result in virtually all generation produced on a property earning credits equal in value to the retail import rate. Utilities reiterate that the Commission has already determined in D.22-12-056, that “retail rates do not reflect the actual costs of the exports or the benefits the exports provide to all customers and the [electrical system]” and, therefore, “continuing to base export

⁹⁰ See Ivy Energy Opening Comments to February 28 Ruling at 2 and 30 (Appendix A).

compensation rates on retail import rates does not comply with Pub. Util. Code §2827.1.”⁹¹ Finally, because the DER Shared Tariff property netting does not accurately reflect each customers’ usage, customers are not being assessed for their fair share of transmission, distribution, generation, and non-bypassable charges.

For all the reasons described above, the Commission should not adopt the DER Shared Tariff as proposed by Ivy Energy.

3.1.5.3. Adoption of the Virtual Net Billing Tariff

Returning to the virtual net billing tariff proposed by Utilities, this decision reviews several claims made by Utilities in support of the proposal as well as claims in opposition to the proposal. As described below, the Commission finds that the Utilities’ proposal as modified herein presents the best option for a successor to the VNEM tariff that balances the competing requirements of the Guiding Principles and the statute but also ensures equity between residential customers enrolled in the virtual net billing tariff and residential customers enrolled in the net billing tariff. Similar to the Utilities’ proposal, the Commission adopts a virtual net billing tariff with separate terms for different customers: 1) benefiting customers taking retail service on residential rates and 2) nonresidential benefiting customers not taking retail service on residential rates. The tariff shall be implemented by SCE and SDG&E no later than March 31, 2025, and by PG&E no later than June 30, 2025. The current VNEM tariff will sunset 90 days from the adoption of this decision. The smaller footprint of the current tariff enables a shorter sunset period than the NEM 2.0 tariff. As was the case with the NEM 2.0 tariff, completed applications

⁹¹ Utilities Reply Comments to February 28 Ruling at 9-10 citing to D.22-12-056 at 104.

received no later than the sunset date will be processed as an existing VNEM tariff application. The VNEM tariff will be available to customers after the sunset date on an interim basis until the virtual net billing tariff is operational.

No later than 90 days from the adoption of this decision, Utilities shall submit a Tier 2 advice letter implementing the adopted virtual net billing tariff as described in this decision. Further, no later than 120 days from the adoption of this decision, Utilities shall submit a Tier 1 advice letter updating the current VNEM tariff as discussed herein.

As the Commission previously determined that basing retail export compensation rates on values derived from the Avoided Cost Calculator “brings the cost of the successor tariff closer to its value,” this decision finds that mirroring this in a VNEM tariff successor would be an appropriate step and would send the correct price signals to benefiting account holders. Sending correct price signals leads to tariff customers providing the greatest benefits to the grid, an objective of the successor tariff. Nothing presented in this proceeding leads the Commission to alter its prior determination to base retail export compensation rates on Avoided Cost Calculator values. Accordingly, the Commission should adopt use of the Avoided Cost Calculator to determine retail export compensation rates for the successor VNEM tariff.

CALSSA contends that if the Commission adopts the Utilities’ proposal, *i.e.*, basing retail export compensation on Avoided Cost Calculator values, the Commission must include property-wide onsite netting with generation valued at the Avoided Cost Calculator with appropriate ACC Plus adders.⁹² SEIA

⁹² CALSSA Reply Comments to February 28 Ruling at 1-2. CALSSA continues to oppose use of the Avoided Cost Calculator values contending that the Avoided Cost Calculator underestimates the value of distributed energy resources.

concur with CALSSA, stating that property-wide netting reflects what is happening on the grid. SEIA asserts that the amount of generation measured by the NGOM should be compared to the combined consumption of all benefiting accounts for each billing interval to determine the amount of energy used onsite and the amount of energy imported, with only the excess energy sent to the grid compensated with retail export compensation rates at Avoided Cost Calculator values.⁹³

This decision turns to the specific issue of netting. In the existing VNEM tariff, netting is calculated at the benefiting account unit level. In D.22-12-056, the Commission created a tariff for customers with onsite generation that serves the customer load behind the same meter as the Generation Facility. These customers self-consume their own generation before sending any residual energy to the grid. In the net billing tariff, customers are compensated for “net generation,” not all generation. In the Utilities’ virtual net billing tariff proposal, benefiting accounts would be compensated for their allocation of all generation. While the Commission considers this to be an accurate distribution of export compensation value, the Commission agrees with parties that this approach may not “provide the same opportunity for multifamily customers to benefit financially from onsite solar as the [net billing tariff] does for single family customers.”⁹⁴ CBD and Sunrun contend the Utilities’ proposed approach would result in discriminatory effects on renters.⁹⁵ Vote Solar *et al.* assert that given “equity was a central objective of this proceeding, and it is the first goal of the Commission’s adopted

⁹³ SEIA Reply Comments to February 28 Ruling at 4-5.

⁹⁴ County of Los Angeles Reply Comments to Proposed Decision at 3 and 5.

⁹⁵ CBD Opening Comments to Proposed Decision at 3 and Sunrun Reply Comments to Proposed Decision at 4.

Environmental and Social Justice Action Plan, the Commission must ensure renters are able to have as similar benefits as possible to those of homeowners with onsite solar.”⁹⁶

As the focal point of this inequity is the ability for renters to benefit financially from onsite renewable generation in the same manner as homeowners, the Commission finds it reasonable to adopt 15-minute unit-level netting of consumption and generation for residential virtual net billing customers. This 15-minute unit-level netting, a modification of the CALSSA proposal for 15-minute property wide netting, is meant to approximate the availability of self-consumption provided to net billing customers.⁹⁷ The 15-minute unit-level netting for residential virtual net billing customers will also provide compensation similar to that of residential net billing customers, as retail energy rates are anticipated to increase, making the value of virtual energy self-consumption higher than the value of the Avoided Cost Calculator-based retail export compensation rates.

Accordingly, this decision adopts a virtual net billing tariff with different requirements for residential and non-residential customers: residential benefiting accounts will have 15-minute netting for all benefiting customer accounts taking service on residential rates and nonresidential benefiting accounts will have no netting for all benefiting customers accounts taking service on nonresidential rates, as described above.

⁹⁶ Vote Solar et al, Opening Comments to Proposed Decision at 2.

⁹⁷ See CALSSA Opening Comments to February 28 Ruling at 12. See also Ivy Energy Opening Comments February 28 Ruling at 21 supporting 15-minute intervals and SEIA Opening Comments February 28 Ruling at 6 supporting 15-minute intervals.

For virtual net billing tariff residential benefiting accounts, if a benefiting account holder is a net consumer within the 15-minute interval, the account holder will be charged accordingly. If, within the 15-minute interval, the account holder is a net generator, they will be credited accordingly. The intervals will be tallied within a monthly billing period. The Commission finds that this is the closest feasible approximation of the net billing tariff where netting of generation and self-consumption happens behind the meter in each instant. As recognized in D.22-12-056, the more granular the intervals are, the less imports and exports will be hidden within that data.⁹⁸

Utilities assert that “allocating the actual consumption of the generating facility to each benefiting account at every 15-minute interval...would make it virtually impossible for system owners and customers to understand how kilowatt-hours are allocated.” The Commission is not persuaded by Utilities’ claim that customers will be unable to understand such an approach. Additionally, Utilities currently collect, store, and share data with nonresidential customers at the 15-minute interval.⁹⁹ Furthermore, as the Commission previously determined for residential net billing customers, allowing access to 15-minute interval consumption will allow for a more accurate bill savings estimate, which (once implemented) will more equitably align residential virtual net billing customers with residential net billing customers.¹⁰⁰ Hence, the Commission should require Utilities to provide 15-minute data to virtual net billing residential customers.

⁹⁸ D.22-12-056 at Finding of Fact 142.

⁹⁹ The previous NEM 2.0 tariff provided for 15-minute netting for nonresidential customers and one-hour netting for residential customers.

¹⁰⁰ See D.22-12-056 at Finding of Fact 141.

This decision declines to adopt hourly netting for the residential virtual net billing tariff. The Commission determined in D.22-12-056 that hourly netting could lead to additional strain on the grid, which conflicts with the requirements of the statute.¹⁰¹ Cal Advocates previously argued that hourly netting allows customers “to increase their consumption in the last 15 minutes of an hour and use excess generation at the beginning of the hour (when [Photovoltaic] production is higher) to offset their end-of-hour consumption.”¹⁰² In D.22-12-056, the Commission pointed to the California Solar Initiative Final Impact Evaluation, which found that, after enrolling in the NEM 1.0 and NEM 2.0 tariffs, customers increased their consumption between the hours of 3:00 p.m. and 6:00 p.m. leading to the reduction of grid benefits and increase of the late afternoon net load ramp.¹⁰³ Nothing causes the Commission to amend its previous finding that hourly netting could lead to additional strain on the grid.

Utilities propose that a utility would assign a percentage of the Generation Facility’s retail export generation compensation to each benefiting account each month as a credit on the benefiting account holder’s bill and that the credit can offset any portion of the bill. The current VNEM tariff assesses non-bypassable charges based on each benefiting account holders’ monthly metered usage. The Utilities’ proposal would create a new cost shift, in that non-bypassable charges could be offset. The Commission finds this proposal would not comply with the statute’s requirement to ensure the costs and benefits of the tariff are equal to all ratepayers. Utilities’ proposal to allow the export compensation credit to offset

¹⁰¹ D.22-12-056 at 131 and D.22-12-056 at Finding of Fact 138

¹⁰² D.22-12-056 at 131 citing PAO-02 at 5-46.

¹⁰³ D.22-12-056 at 131 citing PAO-02 at 5-47 to 5-48 and the Itron and Verdant, LLC, *California Solar Initiative Final Impact Evaluation*, January 28, 2021 at 161.

any portion of the bill would increase the cost for nonparticipants, leading to higher bills for nonparticipants. Hence, the Commission should not allow the export compensation credit to reduce a benefiting account's non-bypassable or fixed charges. Utilities are directed to align this aspect of the successor virtual net billing tariff with the disposition of pending advice letters for the adopted net billing tariff.¹⁰⁴ Property owners or generator account holders remain responsible for setting the benefiting account list to determine each benefiting account holder's percent allocation of the generation.

Utilities propose that size to load and metering requirements should all remain consistent with the existing VNEM tariff. This decision finds nothing in the record to warrant a change to these elements. The Commission should maintain the existing size to load and metering requirements in the successor VNEM tariff. Relatedly, Utilities propose to maintain the annual true-up to determine whether the aggregate onsite generation exceeds the aggregated usage of the benefiting accounts. Previously, the Commission found reviewing onsite generation and usage in the aggregate to be reasonable as it complies with the net surplus compensation rules, which the Commission maintained in D.22-12-056.¹⁰⁵ However, the adoption of 15-minute unit-level netting for residential benefiting account holders makes reviewing aggregated generation and usage unworkable when properties have both residential and non-residential benefiting accounts.

This decision continues the net surplus compensation treatment to track by benefiting account instead of "system wide" tracking. As previously determined,

¹⁰⁴ See PG&E Advice Letter 6848-E, SCE Advice Letter 4961-E, and SDG&E Advice Letter 4155-E.

¹⁰⁵ D.22-12-056 at Ordering Paragraph 1(e) and Conclusion of Law No. 86. See also discussion of net surplus compensation in D.22-12-056 at 161-163.

a majority of VNEM properties are mixed residential and commercial. Having a common net surplus compensation calculation method for all tenants at the same property will be the most straightforward approach. Further, the Commission finds that it will be easiest for Utilities to execute a common net surplus compensation method for all virtual net billing tariff customers versus differentiating between customer sectors. This decision does not adjust the previously adopted practice of calculating the net surplus compensation rate nor does it impact how consumption rates are calculated.¹⁰⁶

Turning to rates for consumption, Utilities assert that benefiting account holders should take service on any currently available rate schedule because “bill credits are divorced from the rate design on which they take service.” This is not the current practice of the VNEM tariff, which currently requires time-of-use rates in conjunction with virtual self-consumption. Requiring benefiting account holders to take service on electrification rates would not make sense, as customers occupying multitenant properties do not have the opportunity to install storage in their individual units.¹⁰⁷

The Commission should allow nonresidential benefiting account holders of the virtual net billing tariff to take service on any currently available rate schedule because, as Utilities indicate above, with no virtual self-consumption, the value of onsite generation to the customer is not affected by the customer’s import rate at the time they use energy. While the Commission found in D.22-12-056 that time-of-use rates would incentivize customers to divert energy usage to

¹⁰⁶ In D.11-06-016, the Commission adopted the practice that generation and consumption accrued over the previous 12-month billing period are trued-up with net surplus generators being paid net surplus compensation.

¹⁰⁷ CALSSA Opening Comments to February 28 Ruling at 11 and SEIA Opening Comments to February 28 Ruling at 9-10.

lower-priced periods when the solar system is producing energy, that finding does not apply to the nonresidential virtual net billing tariff.¹⁰⁸ A virtual net billing tariff benefiting account without virtual self-consumption does not get more or less value from their Generation Facility (or cause a higher or lower cost shift) as the account holder shifts their usage patterns.

For the virtual net billing tariff residential benefiting account holders, however, there is an opportunity to align customer price signals with a desired behavior shift to use energy in the middle of the day during less costly periods and when generation is occurring, which is the requirement in the current VNEM tariff and remains in line with previous Commission directives. In D.16-01-044, the Commission directed that the VNEM tariff should be maintained and updated consistent with the net energy metering tariff and that the Utilities should ensure that every residential customer interconnecting pursuant to the net energy metering successor tariff is placed on an appropriate and available time-of-use rate.¹⁰⁹ Accordingly, residential customers on the virtual net billing tariff shall take service on any time-of-use rate that they would otherwise be eligible; this was proposed by CALSSA.¹¹⁰ This decision does not require customers enrolled in the residential virtual net billing tariff to take service on highly differentiated time-of-use rates, as is the case in the net billing tariff. However, the Commission finds it useful to investigate whether there are benefits both to the tariff customers and to all ratepayers to adopt such a requirement. This is discussed further in Section 3.4.

¹⁰⁸ D.22-12-056 at Finding of Fact 111.

¹⁰⁹ D.16-01-044 at 4 and D.16-01-044 at Ordering Paragraph 5.

¹¹⁰ CALSSA Opening Comments to February 28 Ruling at 11.

Relatedly, SEIA requested that successor VNEM tariff customers be permitted to fully participate in demand response or emergency reliability programs with the caveat that incentives be based on an individual customer's load and do not include excess generation exported to the grid during a demand response event.¹¹¹ The Commission finds this a reasonable request, given that in the successor VNEM tariff, the load from the Generation Facility will not be applied to benefiting accounts. The Commission has encouraged increased participation in demand response programs to help meet the Commission's climate objectives. The Commission should allow virtual net benefiting tariff customers, including the generation account holder, to participate in demand response or emergency reliability programs.

Utilities propose that residential benefiting account holders should receive generation compensation closer to that provided to residential customers on the net billing tariff. Utilities consider this higher compensation to be similar to the ACC Plus adder provided to residential customers in the net billing tariff. Noting that the primary purpose of the VNEM tariff is to enable solar installations for multifamily housing and the net billing tariff does not provide this adder to nonresidential customers, Utilities do not recommend an adder for nonresidential benefiting accounts.¹¹²

CALSSA offers an option for a glide path based on the ACC Plus. Although CALSSA contends D.22-12-056 "went too far in export rate granularity," CALSSA submits that "for the sake of consistency, the base export rates in the VNEM tariff successor should be the same as in the net billing tariff"

¹¹¹ SEIA Opening Comments to February 28 Ruling at 14.

¹¹² Utilities Opening Comments to February 28 Ruling at 6.

with “export rate adders on top of the base export rates.”¹¹³ Asserting that the tariff “predominantly serves renters and small businesses,” CALSSA recommends that “VNEM [tariff] systems that do not meet the [Low Middle Income and Disadvantaged Communities] eligibility criteria should still receive export compensation higher than the base Avoided Cost Calculator [-based export compensation retail] rates.”¹¹⁴ As presented in Table 8 below, CALSSA submits that adders for low- and medium-income and disadvantaged communities (LMI/DAC) should begin at a level that equates to current export value.

Table 8

Current VNEM Tariff Export Value and Recommended Export Rate Adders¹¹⁵						
		Current Export Value	2024 Average ACC Value	Adder Needed for Equivalency	CALSSA Recommended 2024 Adder	
Residential CARE	PG&E	0.215	0.043	0.172	LMI/DAC	0.172
	SCE	0.189	0.044	0.145		0.145
	SDG&E	0.280	0.044	0.236		0.236
Non-CARE Residential	PG&E	0.307	0.043	0.264	Residential Non-LMI/DAC	0.264
	SCE	0.245	0.044	0.201		0.201
	SDG&E	0.407	0.044	0.363		0.363
Medium Commercial	PG&E	0.159	0.048	0.111	Non Residential	0.111
	SCE	0.120	0.046	0.074		0.074
	SDG&E	0.207	0.048	0.159		0.159

¹¹³ CALSSA Opening Comments to February 28 Ruling at 10.

¹¹⁴ CALSSA Opening Comments to February 28 Ruling at 10.

¹¹⁵ CALSSA Opening Comments to February Ruling at 10. CALSSA offers a footnote stating that: Rate schedules used for medium commercial are Schedule B-19-R for PG&E, Schedule TOU-GS2-E for SCE, and Schedule DG-R for SDG&E. The 2024 average ACC values are slightly different between residential and commercial due to differences in typical load profiles and the resulting hours when energy is exported.

In D.22-12-056, the Commission determined that the purpose of the ACC Plus is to support the sustainable growth of distributed generation in California and the construct of the ACC Plus is to provide a targeted nine-year payback period to successor tariff customers.¹¹⁶ The Commission maintains this purpose and construct here. Parties continue to coalesce around the ACC Plus, thus the Commission agrees the ACC Plus should continue to be used as a glide path for the successor VNEM tariff. The disagreement focuses on the amount of the adder and the eligibility criteria.

As an aside, SEIA states that the record of this proceeding does not contain an accurate estimate of the costs of VNEM tariff systems.¹¹⁷ As discussed above, the Commission provided parties ample opportunity to put on the record the unique quantifiable costs of the current VNEM tariff, including claimed interconnection upgrades and sophisticated wiring costs. Parties provided little to no **quantifiable** cost differences between the NEM 2.0 and the VNEM tariffs. The Commission should move forward with its determinations on the VNEM tariff based on this record.

SEIA contends that “the Commission should apply the same adders to the VNEM tariffs as was done in D.22-12-056 for low-income customers, customers living in disadvantaged communities or on tribal land,” which would be \$0.087/kWh for customers in PG&E territory and \$0.093/kWh for customers in SCE’s territory.¹¹⁸ SEIA underscores that the median household income for all

¹¹⁶ D.22-12-056 at 157.

¹¹⁷ SEIA Opening Comments to February 28 Ruling at 11.

¹¹⁸ SEIA Opening Comments to February Ruling at 11 citing D.22-12-056. Note: Ordering Paragraph 1b of the decision adopted an adder of \$.090/kWh for PG&E territory and \$.093/kWh for SCE territory.

California residential renters is only \$42,000.¹¹⁹ SEIA also recommends a stepped down approach over the course of five years, at 20 percent each year after implementation.¹²⁰

Turning to eligibility for the ACC Plus, previously in this decision the Commission found that nonresidential benefiting accounts create a per VNEM tariff customer cost shift of approximately \$15,300 for nonresidential benefiting account holders in PG&E territory. While adoption of the virtual net billing tariff will decrease the future per tariff customer cost shift, providing the additional adder would negate some of these savings. Accordingly, the Commission should not adopt ACC Plus adders for nonresidential customers participating in the successor VNEM tariff.

Based upon the record of this proceeding, the Commission adopts the same ACC Plus adders for the virtual net billing tariff residential customers as were adopted in D.22-12-056 for customers enrolling in the net billing tariff. Table 9 below shows the adders for residential virtual net billing tariff benefiting account holders, distinguished between low-income customers (i.e., those enrolled in the California Alternate Rates for Energy (CARE) program or the Family electric Rate Assistance (FERA) program) and those not enrolled in such programs. As previously stated, rates for energy consumption are anticipated to increase in the future. Hence, the value of energy consumption offsets is higher than the value of Avoided Cost Calculator-based retail export compensation rates. Accordingly, with the adoption of 15-minute netting for the residential virtual net billing, adoption of these adders will result in a nine-year payback

¹¹⁹ SEIA Opening Comments to February 28 Ruling at 11 citing IVY-003.

¹²⁰ SEIA Opening Comments to February 28 Ruling at 11-12.

period. The Commission finds these adders also meet the purpose of enabling sustainable growth in the industry and recognize the general characteristics of residential customers enrolled in the current VNEM tariff, *i.e.*, lower-income households.

These adders will be available to new residential enrollees in the virtual net billing tariff to assist customers in achieving a simple payback period of nine years, with the understanding that tenants cannot make direct use of currently available investment tax credits.¹²¹ As was the case for the net billing tariff ACC Plus Adders, SDG&E customers enrolled in the residential virtual net billing tariff already achieve a nine-year payback period due to higher retail rates and thus do not need the ACC Plus Adder.

Table 9

ACC Plus Adders For Residential Benefiting Account Holders Participating in the Residential Virtual Net Billing Tariff		
Utility	Low-Income Customers	Non-Low-Income Customers
PG&E	\$0.090/kWh	\$0.022/kWh
SCE	\$0.093/kWh	\$0.040/kWh
SDG&E	\$0.000/kWh	\$0.000/kWh

As was the case with the ACC Plus in D.22-12-056, the adders in Table 9 above will be available to new residential enrollees in the virtual net billing tariff for the first five years of implementation but will step down by 20 percent each year to an adder equal to 20 percent of the values in Table 9 in year five and,

¹²¹ In reply comments to the PD, Utilities request the Commission to decrease these values to account for the investment tax credit. (Utilities Reply Comments to August 2, 2023 Proposed Decision at 1.)

ultimately, no adder beginning in year six.¹²² Further mirroring D.22-12-056, a new enrollee qualifying for the adder will maintain the adder at a fixed level for nine years from the date of initial interconnection, (*i.e.*, the anticipated simple payback period).

In D.22-12-056, the Commission determined that the nine-year legacy period for a customer participating in the net billing tariff should be tied to the original owner of the Generation Facility, not the facility itself. In this decision, the Commission takes a different approach for residential participants in the virtual net billing tariff. As has been discussed throughout Section 3.1.5, there are unique circumstances for customers participating in a virtual net energy or net billing tariff. First, residential multifamily tenants (in particular, renters) on the VNEM tariff are not the decisionmakers for adding Generation Facilities, do not set their credit allocation, and do not have control over the sale of the property. As pointed out by Ivy Energy, “[p]roperty owners can pursue different contractual arrangements for their tenants to pay for various amenities and services provided by their properties including, but not limited to, renewable electricity service via onsite generation.”¹²³ Accordingly, the Commission should tie the nine-year legacy period to the Generation Facility associated with the property, rather than the original property owner. Hence, during the course of the nine years from interconnection date, if the system owner changes, the subsequent system owner continues the legacy period. Likewise, if a participating tariff customer leaves the property, the remaining years of the

¹²² The step-down year treatment for the virtual net billing tariff should align with step-down treatment adopted for the net billing tariff in implementation resolutions, e.g., calendar year versus year-to-date.

¹²³ Ivy Energy Opening Comments to Proposed Decision at 5.

legacy period will transfer to the subsequent tariff customer. This includes benefiting account holders (*i.e.*, tenants) and generating account holders (*i.e.*, property owners). The Commission finds that the cost to ratepayers of allowing this treatment is outweighed by the potential harm to the residential benefiting account participants who would otherwise continue to bear their cost of the system without the benefit of the adder.

In D.22-12-056, the Commission adopted two new requirements that should be considered within the terms of the virtual net billing tariff. First, the Commission determined that a customer currently taking service under a net energy metering or net billing tariff could add a storage device to their existing Generation Facility without altering their tariff status, including the legacy period. The Commission finds it consistent to adopt the same allowance for the current VNEM tariff and the newly adopted virtual net billing tariff. Utilities shall update all current VNEM tariffs to align with this directive, including SOMAH and MASH tariffs. A Tier 1 advice letter shall be submitted no later than 45 days after the adoption of this decision implementing the changes to the current VNEM tariff.

Relatedly, the Commission directed Utilities to identify all utility-approved pathways, to facilitate installation of storage for resiliency. Utilities have since amended the current VNEM tariffs (including the low-income VNEM tariffs) to permit operation in isolation of the Generation Facilities, including storage devices, to serve onsite loads during planned or emergency outages.¹²⁴ The Commission recognizes that future changes could be implemented to address ongoing or new challenges to solar systems paired with storage on the

¹²⁴ See SDG&E Advice Letter 4119-E-A, disposed on May 9, 2023; PG&E Advice Letter 6792-E-A, disposed on May 5, 2023; and SCE Advice Letter 4917-E-A, disposed on May 5, 2023.

VNEM or virtual net billing tariffs, and clarifies that the directives in D.21-12-031 are not vacated by this decision. Utilities shall make the pathway approved at the time of this decision available in the virtual net billing tariff. The Commission finds that because this pathway does not permit any load to register on either generating account or benefiting account meters, it does not impact the retail export compensation rate in the virtual net billing tariff. The Commission finds nothing prohibiting the continuation of this pathway in the virtual net billing tariff. Accordingly, the Commission should require the continuation of this pathway in the successor VNEM tariff.

**3.1.5.4. Stand-Alone Requests for Changes
Related to the VNEM Tariff**

The Commission reviewed additional recommendations for the VNEM successor tariff.

The Commission finds that there should be a more efficient process to update the holder of a benefiting account when a tenant moves in and out of a property unit. CALSSA makes three recommendations. First, CALSSA recommends that the VNEM successor tariff should automatically switch to a new tenant, *i.e.*, benefiting account holder.¹²⁵ CALSSA explains that currently when a new tenant moves into a unit that previously received VNEM tariff credits, the property owner would have to wait until the next annual allocation update to add the new tenant as the benefiting account holder; alternatively, the property owner could pay a fee to update the benefiting account holder outside of the annual update. Second, CALSSA also recommends that an option to facilitate the process for addressing the changeover of tenants is to allow vacant

¹²⁵ CALSSA Opening Comments to February 28 Ruling at 7-8.

units to stay enrolled in the VNEM tariff at a zero percent allocation level.¹²⁶ In comments to the proposed decision, Utilities assert that, in the current VNEM tariff, “the total allocation percentage must add up to 100 [percent], and any unallocated credits due to a vacancy are reallocated to a designated account,” which negates the need for a zero percent allocation for the vacancy. The Commission finds that the vacancy status for accounts currently exists and that change is not needed. However, Utilities’ billing practices may necessitate adjustments similar to CALSSA’s initial zero percent allocation request, in order to satisfy the requirement to facilitate the automatic changeover of benefitting account status when there is a change in tenancy. The Commission finds the request for an automatic change in tenancy makes the process more efficient for benefit account holders and should be adopted.

With respect to CALSSA’s third recommendation regarding a customer’s CARE discount, this decision concluded in Section 3.1.4.5 above that the statute prohibits a property manager from taking over a customer account and therefore also prohibits taking over a customer’s CARE benefits. The Commission should decline CALSSA’s request to allow a generating account to “take over” a benefitting account and a customer’s CARE benefits.

Parties were asked to propose new or revised tariff elements that would enable a VNEM successor tariff with storage to provide benefits. Utilities and CALSSA assert that setting export rates at Avoided Cost Calculator values or ACC Plus values should provide the appropriate price signal to encourage storage adoption.¹²⁷ Relatedly, SBUA recommends the Commission revise the

¹²⁶ CALSSA Opening Comments to February 28 Ruling at 7-8.

¹²⁷ Utilities Opening Comments to February 28 Ruling at 12 and CALSSA Opening Comments to February 28 Ruling at 14.

tariff to permit grid charging of onsite batteries both to encourage the adoption of storage and to function as a microgrid during public safety shut-offs.¹²⁸ SBUA submits that, while not clear, the prohibition could be connected to California Energy Commission Renewable Energy Credits (REC) rules that only permit these credits be issued for power generation by eligible renewable energy system, not power drawn from the grid.¹²⁹ SBUA asserts there is no reason to distort system design to produce REC that the Lookback Study has confirmed are unfavorable.¹³⁰ The Commission finds two faults with the recommendations regarding grid charging. First, Pub. Util. Code §2827.1(a) states that Generation Facilities shall have the same meanings as defined in Pub. Util. Code §2827, which defines the term as a facility that generates electricity from a renewable source listed in paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code, which does not include stand-alone batteries. Second, beyond the legal conflict, this would be challenging to accurately measure and provide generation credits since the net generation output meter is not permitted to be bidirectional. Accordingly, the Commission should deny these requests.

Relatedly, CALSSA and SBUA recommend that storage should be able to charge from the grid prior to a planned outage.¹³¹ CALSSA highlights that some storage aggregators have integrated control systems with Public Safety Power Shutoff alert systems to maximize resiliency.¹³² The current VNEM tariff limits

¹²⁸ SBUA Opening Comments to February 28 Ruling at 3-4.

¹²⁹ SBUA Opening Comments to February 28 Ruling at 3.

¹³⁰ SBUA Opening Comments to February 28 Ruling at 3.

¹³¹ See SBUA Opening Comments to February 28 Ruling at 4 and CALSSA Opening Comments to February 28 Ruling at 13.

¹³² CALSSA Opening Comments to February 28 Ruling at 13.

storage device charging to solely from the Generation Facility. While Utilities prefer to maintain this limitation, Utilities express a willingness to support a technical solution.¹³³ Utilities assert that there are no current certifications for power control systems with the right capabilities and caution the importance of maintaining the integrity of the Generation Facility in a virtual arrangement.¹³⁴ Parties appear to agree that a technical solution could exist. The Commission should require Utilities to lead a process to find a consensus approach to allow a virtual net billing tariff customer to charge their storage device from the grid prior to a planned Public Safety Power Shutoff for the purpose of resiliency. Accordingly, no later than March 31, 2024, Utilities shall host a public workshop to discuss this matter and no later than 90 days following the workshop, submit a Tier 2 advice letter proposing language to update both the VNEM tariff and the virtual net billing tariff to permit grid charging prior to Public Safety Power Shutoffs or other planned outages.¹³⁵

The Commission asked parties to comment on whether customers on the current VNEM tariff experience delays in receiving bill credits after permission to operate is granted. CALSSA contends that delays of three to four months are the norm, which cause harm to property owners and tenants facing financing or leasing payments.¹³⁶ CALSSA recommends requiring Utilities to report on key factors, *e.g.*, number of calendar days between the permit to operate and

¹³³ Utilities Reply Comments to February 28 Ruling at 13.

¹³⁴ Utilities Reply Comments to February 28 Ruling at 17.

¹³⁵ In comments to the proposed decision, Utilities requested the commission to delay the deadline for this workshop until after the implementation of the net billing tariff. This is reasonable as the Commission prefers Utilities prioritize net billing tariff implementation. *See* Utilities Opening Comment to Proposed Decision at 4-5.

¹³⁶ CALSSA Opening Comments to February 28 Ruling at 13.

completing the billing system integration for each project.¹³⁷ Utilities submit there are interconnection and internal process improvements that could be evaluated to make further progress but assert recent evaluations have led to improvements.¹³⁸ The Commission finds merit in the request to track progress in the processes causing the delays for virtual net energy metering and, potentially, virtual net billing customers. Utilities are directed to submit a bi-annual report on these processes to the Energy Division and the service list for this proceeding. No later than 90 days from the adoption of this decision, Utilities shall meet with the Energy Division to develop the contents of the report. The first report shall be submitted as part of the annual Net Energy Metering and Net Billing Tariff Annual Reporting Advice Letter established in D.22-12-056.¹³⁹

Lastly, parties were asked about fees for the current VNEM tariff and if these fees should be modified for the successor tariff. Utilities request the Commission to allow a utility to update billing fees for virtual net energy metering or virtual net billing arrangements, contending that costs of billing setup and maintenance for these arrangements change over time. Utilities note that the Commission provided for the ability to change interconnection fees using a Tier 2 advice letter and ask for a similar mechanism to update billing fees for virtual arrangements.¹⁴⁰ Noting that many fees related to the VNEM tariff (set up fees and account modifications) were established 10 years ago, SEIA submits it is reasonable to adjust these to account for inflation.¹⁴¹ The Commission finds it

¹³⁷ CALSSA Opening Comments to February Ruling at 13.

¹³⁸ Utilities Opening Comments to February Ruling at 10.

¹³⁹ See D.22-12-056 at Ordering Paragraph 6.

¹⁴⁰ Utilities Opening Comments to February 28 Ruling at 12.

¹⁴¹ SEIA Opening Comments to February Ruling at 12-13.

reasonable to request such adjustments to fees, given the amount of time that has elapsed since the fees were first established. For regulatory efficiency, the Commission finds it reasonable to expand this request to all Utilities' administrative fees related to all VNEM tariffs and virtual net billing tariffs but requires that the adjustments be based solely on inflation, as suggested by SEIA. Further, inflation rates will be based on the California Department of Finance's California Consumer Price Index current weighted state average from the past 12 months. Utilities are authorized to individually submit on an annual basis one single Tier 2 advice letter requesting adjustments to the fees related to the VNEM tariff and virtual net billing tariff.

3.1.5.5. Implementation Plan for the Virtual Net Billing Tariff

This decision has discussed several aspects of the implementation of the virtual net billing tariff. A complete list of required steps is provided below.

Step 0: The Sunset Period of the current VNEM tariff begins with the adoption of this decision. Customers submitting a completed interconnection application prior to the end of the Sunset Period will be considered applicable for the current VNEM tariff.

Step 1a: Within 90 days of the adoption of this decision, Utilities shall each submit a Tier 2 advice letter to provide the details of the successor virtual net billing tariff, as adopted in this decision. Utilities shall coordinate before submitting the advice letters to ensure language uniformity, to the extent possible. The individual advice letters shall summarize Utilities' interpretation of how the successor virtual net billing tariff will be structured and include indicative levels of price components and rate factors based on the applicable revenue and associated tariff sheets. Ninety days from the adoption of this

decision, Utilities shall separately submit a Tier 2 advice letter updating their current VNEM tariff to align with directives in this decision.

Step 1b: No later than 90 days after the adoption of this decision, Utilities will implement a tariff sunset on the current VNEM tariff, after which time, no additional customers will be permitted to take service under this tariff.

Customers with an interconnection application date **after** this Sunset Date, will take service and be billed on the current VNEM tariff on an interim basis and transition to the virtual net billing tariff once it is operational. The VNEM tariff legacy period is not applicable for interim users. The interconnection application date for residential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed contract, a single-line diagram, a complete California Contractors State License Board Solar Energy System Disclosure Document (if applicable), a signed California Solar Consumer Protection Guide (if applicable), Prevailing Wage Disclosure Form (if applicable, *see* Section 3.3) and an oversizing attestation (if applicable).

The interconnection application date for nonresidential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed Authorization to Act on a Customer's Behalf, the selection of a single-line diagram, Prevailing Wage Disclosure Form (if applicable) and an oversizing attestation (if applicable).

Utilities are granted the discretion to give VNEM tariff eligibility to a customer if a delay in meeting the Sunset Date is caused by the utility. Utilities shall work collaboratively to address challenging situations in deeming applications complete.

Step 2: No later than March 31, 2025, SDG&E and SCE shall complete alignment of related necessary billing systems and transition to full implementation of the virtual net billing tariff. No later than June 30, 2025, PG&E shall complete alignment of related necessary billing systems and transition to full implementation of the virtual net billing tariff. This timing recognizes current billing upgrades in construction by all three utilities as well as net billing tariff implementation work still in process.¹⁴²

Step 3: No later than three years from the interconnection application submission date, all customers seeking to interconnect to the VNEM tariff shall submit final building permit sign off and electrical clearing by the authority having jurisdiction to the Utilities.

In D.22-12-056, the Commission directed Utilities to each submit an advice letter requesting to establish a memorandum account to record costs for implementation of and marketing, education, and outreach for the net billing tariff.¹⁴³ Utilities request the Commission allow Utilities to use this memorandum account to track and record the costs of activities to support the virtual net billing tariff.¹⁴⁴ This is consistent with the direction of D.22-12-056. Accordingly, Utilities are authorized to track the implementation costs, including any marketing, education, and outreach efforts, for the virtual net billing tariff.

3.1.6. SOMAH and MASH Tariff

In D.08-10-036, the Commission created the MASH program, based on a virtual net energy metering approach. In D.17-12-022, the Commission directed the creation of the SOMAH tariff to provide incentives for the installation of solar

¹⁴² Utilities Opening Comments to Proposed Decision at 9-10.

¹⁴³ D.22-12-056 at Ordering Paragraph 12(a).

¹⁴⁴ Utilities Opening Comments to Proposed Decision at 11.

distributed generation projects sited on existing multifamily affordable housing.¹⁴⁵ In D.22-12-056, the Commission determined that it should maintain the current structure of the low-income VNEM tariffs until review of findings from the affordability proceeding and the SOMAH evaluation is conducted.¹⁴⁶

Cal Advocates, CSE, GRID, and Sunrun support the continuation of the SOMAH VNEM tariff in its current form to ensure solar access to the unique low-income customer segment. Cal Advocates recommend the Commission continue to support the SOMAH VNEM tariff, as a tariff aligned with the net billing tariff “including use of the Avoided Cost Calculator for export compensation and the modified ACC Plus adder for Low-income Households.”¹⁴⁷ CSE asserts that the Commission has recently committed to the continuation of SOMAH through adoption of D.23-03-007, which increased the program’s incentive levels and will likely bolster program participation.¹⁴⁸ CSE underscores that with SOMAH “set to sunset in 2030, instituting a new tariff at this point will cause disruption for the program and its participants.”¹⁴⁹ Sunrun contends that a net billing approach would substantially diminish the incentive for property owners to participate in SOMAH.¹⁵⁰

Sunrun submits that the VNEM tariff used in the SOMAH program is distinct from other VNEM tariffs in law and Commission precedent.¹⁵¹ Sunrun

¹⁴⁵ D.17-12-022 at Ordering Paragraph 3.

¹⁴⁶ D.22-12-056 at Conclusion of Law 42.

¹⁴⁷ Cal Advocates Opening Comments to February 28 Ruling at 13-14.

¹⁴⁸ CSE Reply Comments to February 28 Ruling at 2.

¹⁴⁹ CSE Reply Comments to February 28 Ruling at 2.

¹⁵⁰ Sunrun Reply Comments to February 28 Ruling at 11.

¹⁵¹ Sunrun Opening Comments to February 28 Ruling at 4.

points to several examples of this distinction: (1) bill savings are a statutory requirement;¹⁵² (2) the VNEM tariff is historically intertwined with SOMAH given the VNEM tariff's genesis in MASH, the predecessor of SOMAH; (3) SOMAH is not a market transformation program but rather a subsidy to low-income housing; (4) SOMAH properties must be deed-restricted affordable housing;¹⁵³ (5) SOMAH is a capped, time-limited program;¹⁵⁴ (6) SOMAH will impact a small number of ratepayers relative to all utility customers; and (7) the regulatory environment for deed-restricted housing imposes constraints to SOMAH which stifles changes.¹⁵⁵ The Commission agrees that SOMAH is distinct from the general VNEM tariff.

Sunrun asserts that maintaining the SOMAH tariff in its current form is important to its continuation, noting that the tariff is one of two elements of the SOMAH program; the second element is a rebate. Sunrun maintains the VNEM tariff-driven reduction in the property electricity cost is essential to motivate a property owner's participation because it is a precondition for accessing the rebates to pay for the solar; the owner receives zero financial benefit from providing solar to the property's residents.¹⁵⁶ Sunrun highlights that the SOMAH tariff helps achieve the clean energy equity goals reflected in Pub. Util. Code §2827.1. In replies, SEIA, concurring with Sunrun, recommends the Commission

¹⁵² Pub. Util. Code §2870(g)(1) states: "Low-income tenants who participate in the program shall receive credits on utility bills from the program. The commission shall ensure that utility bill reductions are achieved through tariffs that allow for the allocation of credits, such as virtual net metering tariffs designed for Multifamily Affordable Solar Housing Program participants, or other tariffs that may be adopted by the commission pursuant to Section 2827.1."

¹⁵³ Pub. Util. Code §2870(a)(3).

¹⁵⁴ Pub. Util. Code §2870.

¹⁵⁵ Sunrun Opening Comments to February 28 Ruling at 4-7.

¹⁵⁶ Sunrun Opening Comments to February 28 Ruling at 8.

allow the SOMAH VNEM tariff “to continue under its current construct so as to achieve its statutory goal.”¹⁵⁷

The Commission agrees that it is beneficial to continue the SOMAH tariff as-is to maximize bill benefits so that property owners have the proper incentive to participate and so that tenants continue to receive lower monthly electricity bills through the SOMAH credits. The Commission finds that these benefits justify any cost shift this program may cause. Accordingly, the Commission should not make any changes to the SOMAH tariff.

In comments to the proposed decision, Utilities requested clarification on certain aspects of the SOMAH tariff, including continuation of this directive should the current 2030 sunset date be extended and the relationship of the SOMAH sunset date with the tariff end date. Utilities propose SOMAH and MASH VNEM tariffs should end 20 years after the SOMAH program officially ends, with these customers transitioning to the prevailing virtual tariff on the 20th anniversary of the customer’s original interconnection date.¹⁵⁸ In response, CSE also asked for clarification noting that it is possible that an eligible project applying to the SOMAH tariff may not be interconnected by end-of-year 2030 and therefore the Commission should not set a strict 20 year deadline based on the current 2030 sunset date.¹⁵⁹

Revising specifics of the SOMAH tariff, outside of the overlap with the VNEM tariff, are not in the scope of this proceeding. However, the Commission cautions Utilities that access to the tariff should not be prematurely ended for SOMAH projects deemed active and viable by the SOMAH program pursuant to

¹⁵⁷ SEIA Reply Comments to February 28 Ruling at 7.

¹⁵⁸ Utilities Opening Comments to Proposed Decision at 3.

¹⁵⁹ CSE Reply Comments to Proposed Decision at 2-3.

Pub. Util. Code §2870 and regulations previously adopted by the Commission in R.14-07-002 (*Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code 2727.1 and to Address Other Issues Related to Net Energy Metering.*)

The February 28 Ruling asked parties to comment on whether details of the SOMAH or MASH tariff should be adjusted. Only Cal Advocates commented on the MASH tariff, recommending the Commission close the MASH tariff to new enrollees.¹⁶⁰ While the MASH program ended in December 2022, the MASH tariff remains open for new enrollees meeting the eligibility requirements; receiving an incentive from the MASH program is not a requirement. However, only affordable multifamily housing properties that comply with Pub. Util. Code §2852(a)(3)(A) may access the tariff.

Consistent with the finding above for the SOMAH tariff, the MASH tariff should remain open so that property owners have an incentive to participate, and tenants continue to receive lower monthly electricity bills. However, given that the MASH program has closed, and its tariff is similar to the SOMAH tariff, the Commission finds it reasonable to close the MASH tariff to new enrollees when the SOMAH tariff closes. The Commission may consider whether a low-income, affordable multifamily housing customer generation tariff should be continued during future deliberations in the net billing tariff evaluation proceeding.

3.2. Adoption of an Aggregation Subtariff

Below, this decision concludes that it is reasonable to replace the NEMA subtariff with a new Aggregation subtariff that aligns with the net billing tariff

¹⁶⁰ Cal Advocates Opening Comments to February 28 Ruling at 2.

adopted in D.22-12-056. Contrary to the arguments of the Agricultural Parties, the Commission concludes that it is not required to continue to provide the NEMA subtariff to new customers. The current NEMA subtariff will remain intact with no changes for currently enrolled customers until the end of their current legacy period. In Section 3.1.5.3 above, the Commission clarified that the addition of storage to an existing VNEM tariff system does not impact a customer's legacy period, and the Commission adopts the same policy for the NEMA subtariff. As is the case with the VNEM tariff above, this decision establishes a Sunset Period of three months for the current NEMA subtariff.

3.2.1. History and Description of NEMA Subtariff

California established the NEMA subtariff of the Net Energy Metering tariff through Senate Bill (SB) 594 (Wolk, Stats. 2012, ch. 610) to allow an eligible customer-generator with multiple meters to aggregate the electrical load of the meters located on the property where the Generation Facility is located or on property contiguous to that with the Generation Facility. The purpose of the legislation was to amend Pub. Util. Code §2827 to allow a customer to install one Generation Facility sized to serve the entire load of these meters (up to one megawatt) as opposed to separate facilities at each meter. This was predicated on the Commission making a determination that aggregating the load from multiple meters would not result in an increase in the costs for customers not participating in the net energy metering tariff. The Commission made such a finding in Resolution E-4610.¹⁶¹ The statute prohibits an eligible customer-

¹⁶¹ Resolution E-4610, adopted by the Commission on September 19, 2013, found that based on key assumptions in the 2010 Net Energy Metering cost benefit study, allowing eligible customer-generators to aggregate their load from multiple meters will not result in an increase in the expected revenue obligations of customers who are not eligible customer-generators. (Res. E-4610 at Finding No. 9.)

generator that chooses to aggregate from receiving net surplus electricity compensation.¹⁶²

In D.22-12-056, the Commission found the record for the NEMA subtariff insufficient to make any changes at that time. The Commission concluded it should conduct a more thorough analysis of the subtariff. D.22-12-056 retained the NEMA subtariff until such analysis could take place.

According to the current NEMA subtariff, a customer-generator with multiple meters may choose to aggregate the electrical load of the meters located on the property where the Generation Facility is located or on property contiguous to the Generation Facility. These customers can take service on any import rate for which they would otherwise be eligible; generation is valued at the retail consumption rate. NEMA subtariff customers have temporal netting on one-hour intervals for residential customers and 15-minute intervals for nonresidential customers. NEMA subtariff customers have a one-time setup charge of \$25 per aggregated account and a \$5 monthly charge for each aggregated account; these charges subsidize the additional billing needs required by Pub. Util. Code §2827(h).

Currently, Utilities have approximately 13,000 properties interconnected to the grid under a NEMA subtariff with a cumulative solar capacity of approximately 1,000 MW. PG&E provided a 2022 snapshot of the types of properties interconnected under the NEMA subtariff in its service territory, noting that participation is evenly distributed between residential (2,307 properties), nonresidential (2,357), and mixed residential and nonresidential

¹⁶² Pub. Util. Code §2827(h)(4).

properties (2,387).¹⁶³ However, the cumulative capacity of these three property types range from 25.95 MW for the residential properties to 557.9 MW for the nonresidential properties.¹⁶⁴ Of the 7,051 properties in PG&E territory, 1,839 were in disadvantaged communities with a solar capacity of 371.3 MW.¹⁶⁵

Utilities note that the number of combined storage and solar installations currently participating in the NEMA subtariff is low: 181 of the 13,000 NEMA subtariff properties have solar and storage in front of the meter, accounting for 10.7 MW of solar capacity and 5.7 MW of storage capacity.¹⁶⁶ Behind-the-meter storage accounts for less battery storage, with 90 properties having batteries installed. Thus, less than two percent (271) of the 13,000 NEMA subtariff properties have combined solar and storage systems.

3.2.2. Party Proposals for NEMA Subtariff

Five parties offer proposals for the NEMA subtariff. In this section, the Commission provides a brief overview of each party's proposal.

Agricultural Parties propose the Commission make no changes to the NEMA subtariff, contending "the Legislature did not bring NEMA under the NEM 2.0 framework when it subsequently enacted AB 327."¹⁶⁷ Notwithstanding this, Agricultural Parties assert that the Commission "has the discretion...to

¹⁶³ Utilities Opening Comments to February 28 Ruling at 14.

¹⁶⁴ Utilities Opening Comments to February 28 Ruling at 14.

¹⁶⁵ Utilities Opening Comments to February 28 Ruling at 14.

¹⁶⁶ Utilities Opening Comments to February 28 Ruling at 15.

¹⁶⁷ D.22-12-056 at 184 citing Agricultural Energy Consumers Association Opening Comments to February 28 Ruling at 7-9. *See also* Agricultural Parties Opening Comments to February 28 Ruling at 1-2.

maintain the [Pub. Util. Code §]2827(h) credit and debit provisions, crediting methodology, and annual true-up in a successor NEMA program.”¹⁶⁸

Clean Coalition also proposes retaining the current NEMA subtariff with a modification that the export compensation be increased and demand charges be decreased. Clean Coalition asserts that the current tariff undervalues the benefits a NEMA subtariff system provides and contends reducing demand charges will incentivize the deployment of combined solar and storage systems while sending the correct signals for grid usage.¹⁶⁹

CALSSA proposes allowing all customers with physically adjoining properties to participate in a modified NEMA subtariff based on the net billing tariff but with an ACC Plus adder that would initially keep NEMA subtariff export compensation at current levels but phase out in equal increments over ten years.¹⁷⁰ CALSSA’s proposal allows that an enrolling customer would lock in the ACC Plus value for nine years from interconnection. This modified ACC Plus adder would result in the same current payback periods but then increase over the course of ten years. CALSSA’s Modified NEMA subtariff would include property-wide 15-minute netting intervals, which CALSSA contends is the single most important element of the NEMA subtariff successor.¹⁷¹ CALSSA asserts any major change to the NEMA subtariff will lead to the inability to meet the statutory obligation that distributed generation continues to grow sustainably. CALSSA contends its proposed Modified NEMA subtariff, with gradual reductions in export rates, would create the same market dynamics in the short

¹⁶⁸ Agricultural Parties Opening Comments to February 28 Ruling at 17.

¹⁶⁹ Clean Coalition Opening Comments to February 28 Ruling at 3-4.

¹⁷⁰ CALSSA Opening Comments to February 28 Ruling at 22-26.

¹⁷¹ CALSSA Opening Comments to February 28 Ruling at 24.

term as the current NEMA subtariff and, therefore, the same economics for prospective customers.¹⁷²

Utilities propose the Commission replace the NEMA subtariff with a subtariff that aligns with the net billing tariff; they refer to this as net billing tariff aggregation. In the Utilities' proposal, the export rates are based on the Avoided Cost Calculator values, no netting is applied, and net billing tariff applicable import rates are required. Utilities contend that their proposal "would encourage participating generation accounts to export their generation at times that are most beneficial to the grid, thereby reducing emissions and increasing grid reliability."¹⁷³ The Utilities proposal does not change the bill credit allocation structure, stating that "compensating generation on a single set of export rates rather than various retail rates will inherently simplify the process."¹⁷⁴

The final proposal for a NEMA successor subtariff is from Cal Advocates, who state that the current subtariff "allows participants to use generation from a single [Generation Facility] to receive credits on utility bill payments in geographically contiguous property accounts."¹⁷⁵ Cal Advocates asserts this can be similarly realized through the Green Access Program successor tariff, which is currently being reviewed and proposals are being considered in A.22-05-022, et al.¹⁷⁶ Cal Advocates proposes ending the NEMA subtariff, citing the Pub. Util. Code §2827(h)(4) net energy metering requirement that requires the NEMA subtariff only be made available if "load aggregation will not cause an

¹⁷² CALSSA Opening Comments to February 28 Ruling at 25.

¹⁷³ Utilities Opening Comments to February 28 Ruling at 20.

¹⁷⁴ Utilities Opening Comments to February 28 Ruling at 21.

¹⁷⁵ Cal Advocates Opening Comments to February 28 Ruling at 14.

¹⁷⁶ Cal Advocates Opening Comments to February 28 Ruling at 14.

incremental rate impact on the utility's customers that are not eligible customer-generators." Cal Advocates asserts that the current NEMA subtariff creates a cost shift and should not be permitted to continue.

3.2.3. Compliance with Pub. Util. Code §2827 and Pub. Util. Code §2827.1

Before turning to a discussion of the successor NEMA subtariff, it is important to first address two threshold legal issues of whether the Commission is legally bound to (1) offer an Aggregated subtariff of net energy metering and (2) maintain the NEMA subtariff credit and debit provisions in Pub. Util. Code §2827(h). This decision aligns with a prior Commission determination in Resolution E-4854 that, pursuant to Pub. Util. Code §2827, there is no obligation for Utilities (or the Commission) to offer the NEMA subtariff or maintain the current credit and debit provisions because the net energy metering caps described in Pub. Util. Code §2827(c)(1) have been reached. That being said, the Commission finds it reasonable to consider an Aggregation subtariff that aligns with the requirements of Pub. Util. Code §2827.1 and allows for similar crediting and debit provisions previously allowed in Pub. Util. Code §2827(c)(1). These determinations are further described below.

Agricultural Parties and Utilities disagree as to whether the Commission should continue to offer the current NEMA subtariff. Agricultural Parties contend that the NEMA subtariff is not the standard net energy metering tariff but rather an aggregation option available to customers with multiple meters and, therefore, despite the implementation of Pub. Util. Code §2827.1, the Commission is required to continue making this option available.

Utilities assert the opposite is true, that the Commission has no statutory obligation to continue to offer a version of any net energy metering tariff,

including the NEMA subtariff.¹⁷⁷ Utilities maintain that Pub. Util. Code §2827 is inherently tied to NEM 1.0 and to capacity caps that have been reached.¹⁷⁸ Utilities contend the Commission previously recognized this in Resolution E-4854. This resolution found that as “NEMA is authorized as part of [Pub. Util. Code §2827] (the section authorizing [net energy metering]), the small [investor-owned utilities] are not obligated to continue offering NEMA once they reach their [net energy metering] caps.”

Agricultural Parties maintain that “[Pub. Util. Code §]2827.1 does not purport to supplant non-standard arrangements like NEMA.”¹⁷⁹ Agricultural Parties assert that such an intention would have been conveyed in the enactment of AB 327 adding Pub. Util. Code §2827.1, which Agricultural Parties contend would have been “inefficient, illogical, and disruptive to customers and the market to effectively undo the aggregation authorized by SB 594 even before it was implemented.”¹⁸⁰ Further, Agricultural Parties offer that, with the adoption of D.16-10-044, the Commission maintained Pub. Util. Code §2827(h) continuing the NEMA subtariff despite changing the method for standard net energy metering schedules.¹⁸¹

This decision looks to the statute itself to consider and resolve this legal dispute. Pub. Util. Code §2827(c)(1) requires every electric utility to develop, and make available to eligible customer-generators, a standard contract or tariff providing for net energy metering on a first-come first-served basis until the time

¹⁷⁷ Utilities Opening Comments to February 28 Ruling at 16.

¹⁷⁸ Utilities Opening Comments to February 28 Ruling at 16.

¹⁷⁹ Agricultural Parties Opening Comments to February 28 Ruling at 16.

¹⁸⁰ Agricultural Parties Opening Comments to February 28 Ruling at 16.

¹⁸¹ Agricultural Parties Opening Comments to February 28 Ruling at 17.

that the total rated generating capacity used by the customer-generators exceeds five percent of the utility's aggregate peak demand. Pub. Util. Code §2827(c)(1) states that "once the generation limit is reached, only eligible customer-generators that had previously elected to receive service pursuant to the standard contract or tariff have a right to continue to receive service pursuant to the standard contract or tariff." While Agricultural Parties assert that Pub. Util. Code §2827.1 does not purport to supplant non-standard arrangements like the NEMA subtariff, it is clear that the directive in Pub. Util. Code §2827(c)(1), creating an end date for the applicability of the section, does apply to the NEMA subtariff. Pub. Util. Code §2827(c)(1) talks about the first-come first-served availability implying that there is not an expectation that availability of the tariff will continue indefinitely. Furthermore, Pub. Util. Code §2827(c)(1) discusses the allowance for an additional meter or meters to monitor the flow of electricity for the purpose of providing "the information necessary to accurately bill or credit the eligible customer-generator pursuant to subdivision (h)," which describes the NEMA subtariff requirements. The Commission concludes that Pub. Util. Code §2827(c)(1) refers to all parts of the net energy metering tariff, including the NEMA subtariff.

As to the Agricultural Parties' assertion that the Commission chose to maintain Pub. Util. Code §2827(h) by continuing the NEMA subtariff despite changing the method for standard net energy metering schedules, this decision points to two issues with this assertion. First, the Commission did little to change the standard net energy metering tariff in D.16-01-044. In that decision, the Commission lamented the lack of "more information and improved analysis," described having to "make the determinations about the net energy metering successor tariff at a transitional moment," and decided to "choose to continue the

basic [net energy metering] structure.”¹⁸² Second, while Agricultural Parties’ assertion that the Commission chose to maintain Pub. Util. Code §2827(h) is correct, this decision highlights that, indeed, it was the Commission’s **choice** in adopting D.16-01-044 to maintain the NEMA subtariff, not a requirement. The Commission finds this assertion by Agricultural Parties to be misleading.

The Commission previously determined in E-4854 that “the small [investor-owned utilities] are not obligated to continue offering the NEMA subtariff once they reach their [net energy metering] caps.” Given the discussion of Pub. Util. Code §2827 above, this decision finds the Commission determination in E-4854 to be applicable to all electric utilities. Accordingly, this decision concludes that offering a NEMA subtariff is not a legal requirement of the Commission nor Utilities. However, for the reasons discussed in Section 3.2.4 below, the Commission finds it reasonable to develop and provide a subtariff for eligible customer-generators with multiple meters that also aligns with the directives of Pub. Util. Code §2827.1.

Turning to the question of whether the statute requires the Commission and/or Utilities to maintain the NEMA subtariff credit and debit provisions of Pub. Util. Code §2827(h), CALSSA contends that “because it is an established practice” the Commission should leave the monthly reconciling in place for the NEMA subtariff successor, as described in Pub. Util. Code §2827(h)(4)(C).¹⁸³ Agricultural Parties assert that the Commission “has the discretion...to maintain the [Pub. Util. §]2827(h) credit and debit provisions, crediting methodology and annual true-up in a successor NEMA [subtariff] program.”¹⁸⁴

¹⁸² D.16-01-044 at 85-86.

¹⁸³ CALSSA Opening Comments to February 28 Ruling at 26.

¹⁸⁴ Agricultural Parties Opening Comments to February 28 Ruling at 17.

The Commission concludes that, as discussed above, there is no statutory requirement to continue the provisions of Pub. Util. Code §2827(h). However, this decision agrees that the Commission has the discretion to maintain the credit and debit provisions, as long as they comply with Pub. Util. Code §2827.1 requirements for a successor tariff. This is discussed in greater detail in Section 3.2.4 below.

3.2.4. Adopted Aggregation Subtariff

Having addressed the legal disputes of the NEMA subtariff, this decision turns to the policy and technical aspects of the proposals offered by the parties. As described below, this decision finds that creating a net billing tariff option for customers with multiple meters allows these customers to optimize their use of land resources, including locating solar facilities on agriculturally underperforming land.¹⁸⁵ The new Aggregation subtariff will be based on the net billing tariff adopted by the Commission in D.22-12-056 with the following elements: an ACC Plus as a glide path, no netting, net surplus compensation (as calculated under the net billing tariff), and continuance of the credit and debit approach used in the current NEMA subtariff. These elements are described in greater detail below.

As previously stated, in D.22-12-056, the Commission found the record for the NEMA subtariff to be insufficient, requiring a deeper review. The Commission determined it should conduct a more thorough analysis of the subtariff. Following a workshop where parties discussed the technical needs of the subtariff, the Commission issued a Ruling asking parties to comment on

¹⁸⁵ See Agricultural Parties Opening Comments to February 28 Ruling at 3.

several aspects of the current NEMA subtariff in an effort to improve the record and analysis of the subtariff.

Following a review of these aspects, the Commission finds that it is reasonable to provide an Aggregation subtariff to customers with multiple meters. As discussed below, the review shows that the current NEMA subtariff provides no additional benefits to ratepayers and Utilities in comparison to the NEM 2.0 tariff. However, the subtariff does allow agricultural customers to optimize their use of land resources by being able to locate solar on land that is underperforming, thus providing additional benefits but only to the subtariff customers, not all customers.¹⁸⁶

Cal Advocates argues that there are no benefits uniquely attributable to the NEMA subtariff in comparison to the current net energy metering tariff. Noting that the “NEMA subtariff allows participants to use generation from a single [Generation Facility] to receive credits on utility bill payments in geographically contiguous property accounts,” Cal Advocates contends this could be realized through a Green Access Program successor tariff.¹⁸⁷

Utilities concur with Cal Advocates that the NEMA subtariff provides no different or additional benefits than the benefits provided by the net energy metering and net billing tariffs. Stating that “to the extent any [net energy metering] system [sends produced generation to] the secondary, primary, or transmission systems,” Utilities caution, “the benefits of avoiding losses and avoided [transmission and distribution] capacity could be reduced.”¹⁸⁸ However,

¹⁸⁶ See Agricultural Parties Opening Comments to February 28 Ruling at 3.

¹⁸⁷ Cal Advocates Opening Comments to February 28 Ruling at 14.

¹⁸⁸ Agricultural Parties Opening Comments to February 28 Ruling at 13.

Utilities offer that, if a NEMA subtariff system “spans multiple service delivery points, it becomes more likely that generation will be exported.”¹⁸⁹

Agricultural Parties assert additional benefits and cost savings; however, the record of this proceeding does not support these assertions.

First, Agricultural Parties assert that Utilities and ratepayers benefit from a NEMA subtariff versus the NEM 2.0 or net billing tariffs because the statute prohibits NEMA subtariff customers from receiving net surplus compensation.¹⁹⁰ However, the Commission agrees with Utilities that the savings from net surplus compensation is insignificant and does not compensate for the additional interconnection costs caused by NEMA subtariff customers.¹⁹¹ In comments to the proposed decision, Agricultural Parties repeat arguments that the savings from net surplus compensation is not insignificant, asserting that groundwater pumping needs are reduced in wet years, which results in significant excess.¹⁹² Agricultural parties have not proven their case. Even if California would experience successive wet years, which it has not, the record of this proceeding has shown that, while the legislation creating the NEMA subtariff may have been initiated for agricultural customers, the majority of customers taking service on the NEMA subtariff are not agricultural customers.¹⁹³ Accordingly, the

¹⁸⁹ Utilities Opening Comments to February 28 Ruling at 13.

¹⁹⁰ Agricultural Parties Opening Comments to February 28 Ruling at 5.

¹⁹¹ Utilities Reply Comments to February Ruling at 18 stating that “any excess generation from NEMA that is ineligible for net surplus compensation should be very small in volume compared to the total generation from NEMA systems [because systems are required to be sized to current load] and therefore insignificant.”

¹⁹² Agricultural Parties Opening Comments to Proposed Decision at 3.

¹⁹³ Administrative Law Judge’s Ruling Soliciting Responses to Ruling Questions, February 28, 2023, Attachment 1 VNEM NEMA Workshop Slides at 39.

Commission finds that the savings from not providing net surplus compensation is insignificant.

Further, Utilities have provided information indicating higher interconnection costs for NEMA subtariff systems versus net energy metering systems. These alleged higher costs are due to the need for multiple interconnections, the need for larger distribution upgrades because of larger customer-generators, and the need for new infrastructure in rural areas, which tend to have less pre-existing infrastructure.¹⁹⁴ While the Commission agrees that Electric Rule 21 requires all NEM 2.0 and net billing tariff customers (including NEMA subtariff customers) to pay an interconnection fee, this fee varies by utility, is currently between \$94 and \$145, and does not require payment for any distribution upgrades.¹⁹⁵ Only customer-generators with systems over one MW in capacity must pay for any transmission or distribution system upgrades and also pay an \$800 interconnection fee. The Commission finds that savings from net surplus compensation do not compensate for higher utility costs caused by NEMA subtariff customers.

Second, Agricultural Parties allege that “agricultural customers on NEMA subtariffs pay nearly all of the costs of distribution, transmission, and non-bypassable charges due to the rate design of agricultural schedules and, therefore, there are no material cross subsidies from other ratepayers to NEMA

¹⁹⁴ Utilities Opening Comments to February 28 Ruling at 13-14.

¹⁹⁵ PG&E Rule 21 Tariff at Sheet 56:

https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_21.pdf;

SDG&E Rule 21 Tariff at Sheet 36: [ELEC_ELEC-RULES_ERULE21.pdf \(sdge.com\)](#) ;

and SCE Rule 21 Tariff at Sheet 41: [TM2 - ELECTRIC_RULES_21.pdf - All Documents \(sharepoint.com\)](#)

subtariff customers.”¹⁹⁶ Agricultural Parties neglect to account for the fact that not all NEMA subtariff customers are agricultural customers, thus not every NEMA subtariff customer pays for the costs of distribution, transmission, and non-bypassable charges. The record shows that residential customers on a net energy metering tariff, which account for approximately one-third of NEMA subtariff customers, do not cover their fair share of distribution, transmission, and non-bypassable charges because decreased consumption from the grid leads to the bypassing of infrastructure and other service costs embedded in volumetric rates; this would also apply to residential customers on a NEMA subtariff.¹⁹⁷

Agricultural Parties assert that only 3.3 percent of NEMA subtariff capacity in PG&E’s service area is residential and contend the Commission should conclude that agricultural customers, who generally pass the Total Resource Cost test and fully cover their costs of service, are cost-effective customers.¹⁹⁸ The Commission finds this conclusion does not address the entirety of NEMA subtariff customers. Utilities have shown that NEMA tariff customers are not predominantly agricultural customers, neither in terms of number of customers nor volume of capacity as shown by Table 10 below. While it is unclear what portion of the mixed residential and nonresidential category are residential customers, it is also unclear what portion of the nonresidential customers are agricultural customers. What is clear is that agricultural customers are not the predominant category of customers taking service on the NEMA subtariff across California. The residential customer category contains 6,255

¹⁹⁶ Agricultural Parties Opening Comments to February 28 Ruling at 5.

¹⁹⁷ D.22-12-056 at Finding of Fact 13.

¹⁹⁸ Agricultural Parties Opening Comments to Proposed Decision at 8.

customers, while the nonresidential category contains 6,766 customers and the mixed residential and nonresidential category accounts for 4,826.

Table 10¹⁹⁹

Utility NEMA Subtariff Participation Data			
Utility	Category	Total Count	Total Capacity (MW)
PG&E	Residential	2307	25.95
PG&E	Mixed Residential and Nonresidential	2357	202.39
PG&E	Nonresidential	2387	557.9
SDG&E	Residential	2,944	20.49
SDG&E	Mixed Residential and Nonresidential	231	7.05
SDG&E	Nonresidential	320	47.18
SCE	Residential	1,004	4.4
SCE	Mixed Residential and Nonresidential	2,238	72.5
SCE	Nonresidential	3,059	117.8

Third, Agricultural Parties also claim that the Lookback Study found that agricultural customers pay more than their cost of service.²⁰⁰ Utilities argue that this is an incorrect statement because the Lookback Study only found that nonresidential net energy metering customers in general paid more than their cost of service. Further, the Lookback Study did not analyze the cost of service for the agricultural sector. The Commission agrees there is no evidence in the record that agricultural customers pay more than their cost of service. However,

¹⁹⁹ Utilities Opening Comments to February 28 Ruling at 14 and Utilities Reply Comments to February 28 Ruling at 22-23.

²⁰⁰ Agricultural Parties Opening Comments to February 28 Ruling at 6.

this decision has shown that customers enrolled in the NEMA subtariff include a broader mix of customers than just agricultural customers. As previously described, Utilities provided data showing that NEMA subtariff customers include residential customers, mixed residential and commercial customers, and commercial customers. The Lookback Study did not conduct a cost-of-service analysis on a mix of residential and commercial customers but, as Agricultural Parties note, did find that commercial customers pay their cost of service, but residential customers do not.

While the statement Agricultural Parties rely on is based on an analysis of the NEM 2.0 tariff, not the NEMA subtariff, parties have offered little difference of costs and benefits between the NEM 2.0 tariff and the NEMA subtariff with the only difference being the nonpayment of net surplus compensation. This decision has already determined that the savings from nonpayment of net surplus compensation are insignificant. Hence, this decision finds it reasonable to rely on findings of Lookback Study's review of the NEM 2.0 tariff for a review of the NEMA subtariff.

Despite a finding of no additional benefits to ratepayers or the grid, the Commission disagrees with Cal Advocates that the NEMA subtariff should be replaced by a Green Access Tariff option. The Commission finds that an Aggregation option is the most affordable option for customers, with multiple meters on adjacent or contiguous properties, wanting to install onsite generation. Accordingly, the Commission should adopt an Aggregation subtariff, but one that mirrors the net billing tariff, including the five-year decreasing ACC Plus glide path, a nine-year ACC Plus and tariff eligibility lock-in period, no netting, and net surplus compensation as calculated under the net billing tariff. As there are no legislative requirements directing the Commission to adopt a NEMA

subtariff, the Commission finds it reasonable to align the new Aggregation subtariff in several ways with the recently adopted net billing tariff.

The new Aggregation subtariff will provide a combination of high differential time-of-use import rates for residential customers and any available time-of-use rate for nonresidential customers and cost-based retail export compensation; which will be an improvement over the current NEMA subtariff that bases retail export compensation on retail rates. The record has also shown that basing retail export compensation on retail rates does not appropriately value retail export compensation because retail rates do not reflect the actual costs of the generation or the benefits the generation provides to all customers and the electrical system.²⁰¹

The price signals of the new Aggregation subtariff encourage adoption of storage as compared to the current NEMA subtariff, which historically has experienced a low storage adoption rate. While a transition to the Aggregation subtariff will not completely eliminate the cost shift, providing retail export compensation at Avoided Cost Calculator values (after a temporary ACC Plus glide path) will eliminate the retail export compensation portion of the cost shift. This will help the Commission in meeting the requirement that the successor tariff benefits to all customers are approximately equal to its costs. With respect to net surplus compensation, the current net billing tariff practice and method of providing net surplus compensation to customers will also apply to the Aggregation subtariff. This decision makes no changes to the calculation of net surplus compensation previously established by the Commission in D.11-06-016. Hence, net surplus compensation will accrue to net surplus when the previous 12

²⁰¹ D.22-12-056 at Finding of Fact 92.

months of generation and consumption are trued-up. In accordance with D.11-06-016, net surplus compensation is calculated at the average Default Load Aggregation Point or DLAP prices between 7:00 a.m. to 5:00 p.m. Utilities shall be consistent when calculating net surplus compensation.

Other than the annual true-up to determine whether net surplus compensation is owed, the new Aggregation subtariff will have no netting. Hence all generation sent to the grid will receive Avoided Cost Calculator-based retail export compensation and all consumption will be charged at the applicable consumption retail rate. However, the absence of netting will not prevent self-consumption at the generating account, *i.e.*, the meter located on the same property as the customer-generator.

The Commission allows for one set of differences from the net billing tariff; the credit and debit provisions, crediting methodology, and annual true-up will remain the same as the current NEMA subtariff, though the allocation of credits and debits will be provided in dollars rather than in kilowatt-hours. Again, while the Commission concludes that there is no statutory requirement to continue the provisions of Section 2827(h), the Commission has the discretion to maintain these provisions if they align with the requirements of Section 2827.1. The Commission should maintain the provisions of Section 2827(h) in the new Aggregation subtariff, as these provisions help ensure that the benefits of the subtariff to all customers are approximately equal to its costs. Furthermore, as pointed out by Utilities, “the transition to compensating [generation] on a single set of [generation] rates rather than various retail rates will inherently simplify

the [allocation] process,”²⁰² thus allowing the continuance of the credit and debit provisions.

The Commission takes this time to correct a misstatement in D.22-12-056. Finding of Fact 20 states that the “Lookback Study finds that the commercial, industrial, and agricultural customer segments of the NEM 2.0 tariff generally pass the Total Resource Cost (TRC) test and pay rates that fully cover their costs of services.” This statement is not completely accurate. While Table 5-7 of the Lookback Study shows that the three nonresidential sectors (commercial, industrial, and agricultural) of the NEM 2.0 tariff generally pass the TRC test, Table 1-7 indicates that the nonresidential sector pays bills that are slightly higher than their costs of services. However, Table 1-7 does not provide a comparison of the three nonresidential sectors. Hence, Finding of Fact 20 should be revised as follows: The Lookback Study finds that the commercial, industrial, and agricultural customer segments of the NEM 2.0 tariff generally pass the TRC test and nonresidential sector customers as a whole pay rates that fully cover their costs of services.

3.2.5. Implementation Plan for the Aggregation Subtariff

This decision has discussed several aspects of the implementation of the aggregation subtariff. A complete list of required steps is provided below.

Relatedly, in D.22-12-056, the Commission directed Utilities to establish a memorandum account to record costs for implementation of and marketing, education, and outreach for the net billing tariff.²⁰³ In comments to the proposed decision, Utilities requested authorization to use this same memorandum

²⁰² Utilities Opening Comments to February 28 Ruling at 21.

²⁰³ D.22-12-056 at 194 and D.22-12-056 at Ordering Paragraph 12.

account to track and record the costs of activities to support the virtual net billing tariff and the Aggregation subtariff.²⁰⁴ Utilities' request is reasonable and should be granted.

Step 0: The Sunset Period of the current NEMA subtariff begins with the adoption of this decision. Customers submitting a completed interconnection application prior to the end of the Sunset Period will be considered applicable for the current NEMA subtariff.

Step 1a: Within 45 days of the adoption of this decision, Utilities shall each submit a Tier 2 advice letter to provide the details of the new aggregation subtariff, as adopted in this decision. Utilities shall coordinate before submitting the advice letters to ensure language uniformity, to the extent possible. The individual advice letters shall summarize Utilities' interpretation of how the successor virtual net billing tariff will be structured and include indicative levels of price components and rate factors based on the applicable revenue and associated tariff sheets.

Step 1b : No later than 90 days after the adoption of this decision, Utilities will implement a tariff sunset on the current NEMA subtariff, after which time, no additional customers will be permitted to take service under this subtariff. Customers with an interconnection application date **after** this Sunset Date, will take service and be billed on the current NEMA subtariff on an interim basis and transition to the aggregation subtariff once it is operational. The NEMA subtariff legacy period is not applicable in this case. The interconnection application date for residential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed

²⁰⁴ Utilities Opening Comments to Proposed Decision at 11.

contract, a single-line diagram, a complete California Contractors State License Board Solar Energy System Disclosure Document, a signed California Solar Consumer Protection Guide, and an oversizing attestation (if applicable).

The interconnection application date for nonresidential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed Authorization to Act on a Customer's Behalf, the selection of a single-line diagram, and an oversizing attestation (if applicable.)

Joint Utilities are granted the discretion to give NEMA subtariff eligibility to a customer if a delay in meeting the Sunset Date is caused by the utility. Joint Utilities shall work collaboratively to address challenging situations in deeming applications complete.

Step 2: No later than March 31, 2025, SDG&E and SCE shall complete alignment of related necessary billing systems and transition to full implementation of the aggregation subtariff. No later than June 30, 2025, PG&E shall complete alignment of related necessary billing systems and transition to full implementation of the aggregation subtariff. This timing recognizes current billing upgrades in construction by all three utilities as well as net billing tariff implementation work still in process.²⁰⁵

Step 3: No later than three years from the application submission, all customers seeking to interconnect to the NEMA subtariff shall submit final building permit sign off and electrical clearing by the authority having jurisdiction.

²⁰⁵ Utilities Opening Comments to Proposed Decision at 9-10.

3.3. Enhanced Protections for Customers Enrolled in Net Energy Metering and Net Billing

With the recent adoption of the net billing tariff, the Commission explored opportunities to enhance consumer protections for customers enrolled in the net billing tariff as well as the NEM 1.0 and NEM 2.0 tariffs. In this decision, the Commission improves processes related to the Public List of Non-Compliant Providers (Watch List), establishes a billing reformation process to begin four months after implementation of the residential net billing tariff, and adopts other smaller improvements to protect customers while omitting unnecessary Utility reporting requirements. Each of these is addressed separately below.

3.3.1. Watch List Issues

Parties were asked to respond to questions regarding changes to the Watch List, including changes to the requirements, regulations, and rules with which providers must comply; the Watch List placement and removal process; and the role of Utilities. Below, this decision presents a current description of the Watch List followed by discussions of revisions to the Watch List processes, modifications to the list of Commission rules and regulations solar providers must comply with to remain off the Watch List, and changes to the roles and responsibilities of Utilities with respect to the Watch List.

As described below, this decision reforms Watch List-related processes to: (1) review current, active interconnection applications rather than approved applications; (2) authorize Energy Division to revise the Contractors State License Board (CSLB) Disclosure Document and create a “Commission Compliance Checklist” that defines a compliant interconnection application and includes references to customer protections adopted in D.20-08-001 and D.21-06-026; (3) require Utilities to use the updated Commission Compliance Checklist when performing the semi-annual spot audits and pre-approval

reviews; (4) authorize Energy Division to update, when needed, the Commission Compliance Checklist through the resolution process; and (5) refine the Watch List placement time for solar providers found non-compliant with consumer protection rules and regulations.

3.3.1.1. Current Watch List Description

D.21-06-026 authorized Energy Division “to effectuate the establishment and maintenance of a public list of solar providers whose interconnection applications have been found in non-compliance with applicable state law or Commission requirements of D.18-09-044 and D.20-02-011; CSLB’s regulations set forth in the California Business and Professions Code or California Code of Regulations, or Department of Financial Protection and Innovation (DFPI) regulations set forth in the California Financial Code, California Corporations Code or the California Code of Regulations.”²⁰⁶ The purpose of establishing this process was to deter providers from violating applicable consumer protection-related laws and regulations.

Utilities perform spot audits of interconnection applications, as directed by D.18-09-044 and modified by D.21-06-026. Pursuant to D.18-09-044, for each semi-annual spot audit, each utility shall spot check at least 100 interconnection applications and at a minimum: (1) confirm the provider has a valid CSLB license and entered the license on the application and (2) verify the customer signed forms attesting the customer received and read the information packet and Solar Energy Disclosure Document prior to signing a contract or agreement with the solar provider.

²⁰⁶ D.21-06-026 at 9.

The names of providers found to be out of compliance are given to Energy Division, which verifies the application is noncompliant. Energy Division alerts the utility that the noncompliant provider will be placed on the Watch List.

Pursuant to D.21-06-026, Utilities must provide notification to each solar provider that has been placed on the Watch List. The utility must identify the requirements that the application did not comply with and inform the provider that a request for removal may be submitted via email to the utility with documentation that demonstrates the application did comply with the requirements.

Before approving applications from providers currently on the Watch List, Utilities must review with increased scrutiny the first 10 net energy metering interconnection applications submitted by these providers while on the list, and ten additional applications, for each successive quarter the provider has been on the Watch List.

Subsequently, pursuant to D.21-06-026, for each semi-annual spot audit, each utility must now audit a minimum of 384 randomly selected net energy metering interconnection applications received in the previous six months from solar providers not on the Watch List and 384 randomly selected net energy metering interconnection applications received in the previous six months from solar providers that were on the Watch List.

D.21-06-026 authorized Energy Division to ensure the Watch List is updated quarterly. Further, D.21-06-026 directed that solar providers that have been placed on the Watch List shall remain on the list until the end of the full quarter after which they were initially placed on the list. The decision allowed solar providers to request removal from the list by submitting documentation demonstrating the identified application is in fact in compliance.

3.3.1.2. Watch List Process Revisions

Parties were asked several questions with respect to Watch List processes. This decision begins with a threshold concern that the Watch List is not fulfilling its purpose of deterring providers from violating applicable consumer protection-related laws and regulations. Parties claim two perceived problems with the Watch List. First, SEIA contends that there is a lack of readily available means to align the Watch List with similar processes of CSLB and DFPI and, thus, the Watch List does not include providers who have violated CSLB and DFPI rules and regulations.²⁰⁷ Utilities agree that the Watch List does not include CSLB and DFPI regulations violators.²⁰⁸ Second, CALSSA and SEIA argue that providers are primarily on the Watch List for clerical errors, not technical errors.²⁰⁹ Relatedly, maintaining that solar consumer protections are not designed to identify fraud, Utilities claim that “quarterly reports regarding solar consumer complaints and the audit process are largely clerical.”²¹⁰ Supporting CALSSA and SEIA assertions, Utilities state that it “appears that vendors are placed on the Watch List largely for administrative errors.”²¹¹

Parties make several suggestions to improve the Watch List to address these two problems.

To address both problems, Utilities recommend the establishment of an interagency (Commission with CSLB and DFPI) task force to: (1) evaluate

²⁰⁷ SEIA Opening Comments to February 1 Ruling at 3-4.

²⁰⁸ Utilities Opening Comments to February 1 Ruling at 3.

²⁰⁹ CALSSA Opening Comments to February 1 Ruling at 2 and SEIA Opening Comments to February 1 Ruling at 2-3 and 4-5.

²¹⁰ Utilities Opening Comments to February 1 Ruling at 3.

²¹¹ Utilities Opening Comments to February 1 Ruling at 3.

suspicious provider activities and past selling practices and (2) make recommendations for legal investigation when evidence of fraud is found.²¹²

CALSSA recommends modifications to the audit process whereby the reviewed applications are those that have not been processed as opposed to those that have been already approved; this would require a reduction in the number of applications randomly reviewed back to 100. The proposed modification would also allow a provider to remedy the errors, be given a warning, and be put on the Watch List for any subsequent violations. CALSSA asserts this would address clerical errors and not place providers with technically correct applications on the Watch List.²¹³ CALSSA recommends a due process procedure before placing a provider on the public Watch List, enabling a provider to contest the placement.²¹⁴ SEIA recommends similar changes to the audit process.²¹⁵

The Commission acknowledges that the Watch List cannot currently capture the violators of CSLB and DFPI regulations. D.21-06-026 Section 4 requires Utilities to issue notices to solar providers informing them that they have been placed on the Watch List; the notices are required to include the specific interconnection applications that were found non-compliant. Neither CSLB nor DFPI collect interconnection application numbers, making it difficult to align CSLB and DFPI complaints with the Watch List.

The Commission declines to adopt Utilities' proposal to establish an interagency task force. The Commission finds it unnecessary to create a new task

²¹² Utilities Opening Comments to February Ruling at 3-4.

²¹³ CALSSA Opening Comments to February 1 Ruling at 2.

²¹⁴ CALSSA Opening Comments to February 1 Ruling at 3.

²¹⁵ SEIA Opening Comments to February Ruling at 5-6.

force to resolve the problem that the Watch List does not capture violators of CSLB and DFPI regulations. The Commission, CSLB, and DFPI already coordinate through the Interagency Solar Consumer Protection Task Force.

Turning to the problem that the Watch List primarily identifies a list of providers committing administrative errors, the Commission again finds that establishing a task force, as recommended by Utilities, is unnecessary. Instead, the Commission finds it efficient and effective to revise the current Watch List process, based on CALSSA's proposed changes but with alterations, as described below.

To begin, the Commission agrees that the Watch List should review current, active interconnection applications rather than post-approval applications. While the Commission acknowledges concerns of additional approval delays reviewing current applications could cause,²¹⁶ this could be balanced by other modifications, such as: (1) reducing the number of random interconnection applications Utilities must manually review every six months in the spot audits from 768 to 100; (2) eliminating the requirement that Utilities provide notice to solar providers of Watch List placement; and (3) eliminating the now obsolete removal process established in D.21-06-026. Utilities also support decreasing the number of spot audits to 100.²¹⁷

Further, this decision authorizes the establishment of an internal Enhanced Review List. The Commission agrees with CALSSA that reviewing current applications and reducing the number of applications reviewed in the semi-annual spot audits could decrease the number of providers placed on the Watch

²¹⁶ CALSSA Opening Comments to February 1 Ruling at 2-3, SEIA Opening Comments to February 1 Ruling at 5-6, and Utilities Reply Comments to February 1 Ruling at 1-2.

²¹⁷ Utilities Reply Comments to February 1 Ruling at 2.

List for administrative errors. However, instead of placing a noncompliant provider on the public Watch List, the provider will be placed by Commission staff on an internal Enhanced Review List. This is similar to CALSSA's recommendation of a warning and SEIA's proposal of a safe harbor.²¹⁸

Energy Division will create, maintain, and update (on a quarterly basis) the Enhanced Review List using information provided by relevant staff in Energy Division, CSLB, and DFPI.²¹⁹ The updated internal Enhanced Review List will be provided to Utilities near the beginning of each quarter. The Enhanced Review List for a quarter will be used as a basis to determine the Watch List for the next quarter as discussed below.

CALSSA requests the Commission adopt notification of placement on the Enhanced Review List.²²⁰ The Commission does not find this necessary given that it is an internal list and the purpose for its creation is to limit the weaponization of the public Watch List.

Once a provider is placed on the internal Enhanced Review List, Utilities will be notified by Commission staff and will then conduct pre-approval reviews of the next ten applications received from the identified provider, with enhanced scrutiny and by comparing the application against the Commission Compliance Checklist (described in Section 3.3.1.3. below). This is an equivalent process as is conducted for providers on the public Watch List currently. However, enhanced

²¹⁸ CALSSA Opening Comments to February 1 Ruling at 6 and SEIA Opening Comments to February 1 Ruling at 11.

²¹⁹ CSLB and DFPI have their own internal processes for determining what providers should be on the Watch list. Energy Division will communicate on a quarterly basis to ascertain the list of providers not complying with CSLB and DFPI regulations. These violators will be placed on the Enhanced Review List and public Watch List for two quarters.

²²⁰ CALSSA Opening Comments to Proposed Decision at 12.

scrutiny will now include a manual review of all documents submitted as part of the ten applications.²²¹

Utilities contend review of interconnection applications prior to approval will delay interconnection because the application could be returned for noncompliance.²²² The Commission agrees that this could slow the interconnection process for the noncompliant applicant; but this should also encourage applicants to be compliant in the future. Utilities further contend reviewing applications prior to approval is “onerous because they require coordination between employees performing application review and audit teams.”²²³ The Commission is not persuaded by Utilities’ contention as processes related to semi-annual spot audits have been scaled back by decreasing the number of applications audited from 384 to 100 every six months. Lastly, Utilities assert that there may be costs associated with altering the timing of the review process.²²⁴ As previously stated, the changes to the Watch List process when considered together, including reviewing interconnection applications prior to approval, will improve the efficiency of the spot audit and Watch List process.

If an application from a provider on the Enhanced Review List is found to be noncompliant during the pre-approval review, the Utility will return the application to the provider who will have an opportunity to remedy the application. The Utility shall also remind the solar provider that failure to remedy the application may result in placement on the public Watch List. (This replaces the requirement in D.21-06-026 that Utilities shall provide notification to

²²¹ D.21-06-026 at 11.

²²² Utilities Opening Comments to Proposed Decision at 13.

²²³ Utilities Opening Comments to Proposed Decision at 13.

²²⁴ Utilities Opening Comments to Proposed Decision at 13.

solar providers of placement on the Watch List.) If unable to remedy the application, the Utility will alert Energy Division who will verify the application is noncompliant and place the provider on the public Watch List.

Once placed on the public Watch List, the first ten applications submitted by that provider during the time on the Watch List will be reviewed with enhanced scrutiny. However, as described in Section 3.3.1.4 below, no application will be denied for failure to comply with consumer protection regulations. This revised process will avoid unnecessary reputational harm and limit the potential weaponization of the Watch List by competitors, as alleged by CALSSA.²²⁵ Also, the modifications adopted here make the removal process adopted in D.21-06-026 obsolete.

Energy Division and Utilities shall use the Commission Compliance Checklist (described in section 3.3.1.3) to review (1) interconnection applications submitted to Energy Division as part of the Utilities' semi-annual 100 application spot audits and (2) the first ten new applications submitted to Utilities by solar providers on the internal Enhanced Review List and, if necessary, on the public Watch List.

Parties discussed the length of time providers should remain on the Watch List. As described in Section 3.3.1.1. above, currently, a solar provider placed on the Watch List will remain listed until the end of the full quarter after which the solar provider was initially placed on the list, for a minimum of six months. CALSSA, SEIA, and Utilities all agree that violations of Commission regulations, which are clerical or administrative errors, should lead to a provider being on the Watch List for only one quarter; while SEIA and Utilities contend violators of

²²⁵ CALSSA Opening Comments to February 1 Ruling at 6.

CSLB and DFPI regulations should be on the list for two quarters as these violations equate to fraudulent behaviors.²²⁶ The Commission agrees that violations of Commission rules are more administrative and not as serious as violations of CSLB and DFPI regulations. Hence, the Commission should limit the amount of time that providers violating Commission rules are on the Watch List to three months and establish a limit of six months for violators of CSLB and DFPI regulations. Providers will automatically be removed from the Watch List after these adopted time frames.

3.3.1.3. Commission Consumer Protection Rules With Which Providers Must Comply To Remain Off Watch List

Parties were asked to review the list of regulations and rules with which solar providers must comply (in particular, the consumer protection requirements of D.20-08-001 and D.21-06-026) for purposes of determining placement on the Watch List and whether, and how, a standardized set of non-compliance criteria could be developed. Parties presented various arguments for changes.

D.20-08-001 requires contractors to provide a savings estimate to customers through the CSLB's Supplemental Disclosure Form and using the Commission's standardized inputs and assumptions. SEIA contends several aspects of this requirement are challenging considering the complexity of the net billing tariff, including estimating net electric bill savings for the first 20 years following interconnection and the directive to use the PV Watts tool to estimate one-hour interval generation.²²⁷ CALSSA states that the Supplemental Disclosure

²²⁶ CALSSA Opening Comments to February 1 Ruling at 6; SEIA Opening Comments to February 1 Ruling at 10-11; and Utilities Opening Comments to February 1 Ruling at 5-6.

²²⁷ SEIA Opening Comments to February 1 Ruling at 7-9.

Form is not finalized.²²⁸ Both CALSSA and SEIA conclude that the inputs and assumptions need to be updated to align with the net billing tariff.²²⁹ Utilities “do not believe that placement on the Watch List due to clerical errors on the Consumer Protection guide is effective in protecting customers” and assert that halting or even delaying approval of these applications only harms customers who have decided to install solar.²³⁰

Related to this decision, Ordering Paragraph 2 of D.21-06-026 requires Utilities to modify the interconnection portals to collect: (1) the Home Improvement Salesperson (HIS) registration number of solar providers, if applicable and (2) the address of any entity that finances the projects, including leases, through means other than Property Assessed Clean Energy financing, if applicable. Where applicable, providers are required to provide this data to Utilities.

SEIA supports compliance with these rules.²³¹ CALSSA recommends that failure to provide this data should not warrant inclusion on the Watch List. SEIA asserts that due to contracts not being standardized, “uncovering whether an HIS registration number was included would require customer attention for every contract reviewed.”²³² With respect to the address of lessors, SEIA contends that enforcement of this requirement “faces similar challenges to an HIS registration number.”²³³

²²⁸ CALSSA Opening Comments to February 1 Ruling at 4.

²²⁹ CALSSA Opening Comments to February 1 Ruling at 4 and SEIA Opening Comments to February 1 Ruling at 8-9.

²³⁰ Utilities Opening Comments to February 1 Ruling at 4-5.

²³¹ SEIA Opening Comments to February 1 Ruling at 9.

²³² CALSSA Opening Comments to February 1 Ruling at 5.

²³³ CALSSA Opening Comments to February 1 Ruling at 5.

Parties also commented on the issue of creating a standardized set of non-compliance criteria and whether CSLB and DFPI should be involved. Utilities support re-evaluating the non-compliance criteria but recommend that changes be approved via ruling or decision rather than an advice letter authored by Utilities.²³⁴ CALSSA recommends continuing to coordinate with the CSLB and DFPI but referring customers to their resources and limit the Watch List to Consumer Guide violations and Commission rules.²³⁵ SEIA supports the creation of a standardized set of non-compliance criteria premised on violations that cause harm to the consumer such that the Watch List “would provide consumers useful information while not unjustifiably causing competitive harm and damage to the reputations of contractors who are placed on the list.”²³⁶

This decision has already determined that the Watch List process requires refinements, which have been outlined in Section 3.3.1.2 above. These refinements address the concern of placement on the Watch List due to clerical errors and the resulting reputational damage. The refinements should limit these placements. The Commission considers it important to ensure that providers are complying with consumer protection rules. Hence, this decision finds it prudent to require compliance with the consumer protection directives of D.20-08-001, as modified below, and D.21-06-026, as discussed further below.

The Commission recognizes that the customer bill savings estimate method approved in D.20-08-001 is not compatible with the net billing tariff, especially due to the use of the ACC Plus. Therefore, the Commission concludes it should delay this requirement until the inputs and assumptions are updated.

²³⁴ Utilities Opening Comments to February 1 Ruling at 5.

²³⁵ CALSSA Opening Comments to February 1 Ruling at 5.

²³⁶ SEIA Opening Comments to February 1 Ruling at 10.

Accordingly, the Commission authorizes a review of the inputs and assumptions for the bill savings estimate. Energy Division is authorized to review the standardized inputs and assumptions following the full implementation of the net billing tariff. However, to ensure input from parties, Energy Division is authorized to present a draft of the inputs and assumptions in a public workshop). Following the workshop, Energy Division is authorized to provide a full set of inputs and assumptions through a draft resolution to allow for public comment no later than July 1, 2024.

Adoption of a final revised set of inputs and assumptions will lead to other necessary steps. First, following Commission adoption of the inputs and assumptions resolution, Energy Division will finalize the CSLB Disclosure Document for publication by CSLB. Second, as the Commission agrees with parties that there is benefit to the development of a standardized set of noncompliance criteria for the Watch List, the Commission should authorize Energy Division to develop a *Commission Compliance Checklist* that clearly identifies the requirements for an interconnection application to be compliant for purposes of placement on the public Watch List. Energy Division is also authorized to provide a draft of the Checklist to the service list for informal party and other stakeholder comment to ensure the list is clear and complete.²³⁷ Once completed, this checklist shall be used by Utilities for conducting their pre-approval reviews as directed and described in Section 3.3.1.2 above. Both Utilities and CALSSA asked for additional clarification on what a deficient application would be with respect to the Checklist.²³⁸ This clarification will be

²³⁷ CALSSA Opening Comments to Proposed Decision at 12.

²³⁸ See Utilities Opening Comments to Proposed Decision at 13 and CALSSA Opening Comments to Proposed Decision at 12.

provided in the Checklist, i.e., the Checklist will state what is needed for an item on the Checklist to be considered completed.

With respect to compliance with D.21-06-026, the Commission is not persuaded by CALSSA's contention that there are barriers to comply with the requirement to include the Home Improvement Salesperson registration number and the address of the applicable financier. Accordingly, the Commission should require that solar providers failing to comply with these requirements should be added to the Enhanced Review List as the absence of this information results in an application that is deficient.

Relatedly, CALSSA requests clarification on two aspects of the Home Improvement Salesperson registration number as it relates to the Commission Compliance Checklist. CALSSA asks for clarification regarding what would be deemed as deficient on the Checklist with respect to the Home Improvement Salesperson registration number.²³⁹ CALSSA also asks if compliance with administration of the Consumer Guide is part of the Checklist process and whether the Consumer Guide may be readministered if there was an administrative error with uploading the guide with the interconnection application.²⁴⁰ Previously in this section, the Commission approved a collaborative process for drafting the Checklist that includes all parties. These clarifications can and should be addressed through that process.

3.3.1.4. Utilities Roles and Responsibilities

Parties were asked whether Utilities should have a role in determining provider compliance with the Watch List, other than the semi-annual spot audits,

²³⁹ CALSSA Opening Comments to Proposed Decision at 13.

²⁴⁰ CALSSA Opening Comments to Proposed Decision at 13.

and whether Utilities should publicly report the results of the audits or enhanced reviews.

Utilities request to be eliminated from the Watch List process completely.²⁴¹ However, Utilities contend that net billing tariff interconnection applications should not be denied for noncompliance with Commission consumer protection regulations.²⁴² Further, Utilities oppose a requirement to report on the results of the enhanced reviews “unless there is an appropriate outcome or action taken against offending providers as a result of the report results.”²⁴³ Utilities contend that additional reporting without any consequences does not meaningfully protect customers.²⁴⁴

CALSSA supports allowing Utilities to temporarily suspend applications that fail to comply with required consumer protection rules, but only to allow for correcting the noncompliance and “only for those applications selected for random audit and the review of applications of contractors on the Watch List.”²⁴⁵ CALSSA supports requiring the reporting of pre-approval enhanced review results.²⁴⁶

SEIA opposes allowing Utilities to permanently deny a net billing tariff application because of noncompliance with consumer protection rules. SEIA contends that the Commission cannot delegate that authority to Utilities.²⁴⁷

²⁴¹ Utilities Opening Comments to February 1 Ruling at 1, 3 and 6.

²⁴² Utilities Opening Comments to February 1 Ruling at 6.

²⁴³ Utilities Opening Comments to February 1 Ruling 7.

²⁴⁴ Utilities Opening Comments to February 1 Ruling at 7.

²⁴⁵ CALSSA Opening Comments to February 1 Ruling at 7.

²⁴⁶ CALSSA Opening Comments to February 1 Ruling at 7.

²⁴⁷ SEIA Opening Comments to February 1 Ruling at 12.

However, SEIA is not opposed to Utilities temporarily denying an application for incomplete answers and allowing the applicant to correct or complete the application.²⁴⁸ While not objecting to the reporting of pre-approval enhanced review results, SEIA contends the use of an advice letter for such reporting is not appropriate. SEIA maintains the Commission “does not require Utilities to publicly submit the results of their semi-annual audits and the results of their pre-approval enhanced reviews should be treated no differently.”²⁴⁹

This decision has reformed the Watch List process and, relatedly, required an update of documents that clarify the requirements for compliance to remain off the Watch List. The changes to the Watch List process minimize the role of Utilities in the Watch List process. Hence, this decision finds that additional directives such as requiring or authorizing Utilities to permanently deny an application for noncompliance with consumer protection rules or reporting the results of enhanced pre-approval reviews (other than to Commission staff as described in Section 3.3.1.2. above) would not reflect this change of role for the Utilities. Further, the Commission agrees that neither permanently denying an application for noncompliance with consumer protection rules nor publicly reporting a noncompliance list for clerical errors promotes consumer protection. The Commission concludes these requirements should not be adopted. Accordingly, the Commission prohibits Utilities from denying an application for noncompliance with consumer protections rules and from reporting the results of enhanced pre-approval reviews.

²⁴⁸ SEIA Opening Comments to February 1 Ruling at 12.

²⁴⁹ SEIA Opening Comments to February 1 Ruling at 13.

3.3.2. Customer Billing Issues

Recognizing historic customer challenges with understanding NEM 1.0 and NEM 2.0 tariff bills, the Commission asked parties whether the Commission should require the implementation of a process to review these challenges for customers of the net billing tariff, as well as NEM 1.0 and NEM 2.0 tariff customers, and whether the Commission should require the development of a uniform bill format through the use of a statewide vendor. As described below, this decision adopts a process to review these challenges for net billing tariff customers and revise net billing tariff customers' bills to improve customer understanding; this process will include public workshops.

As stated in the February 1 Ruling, historically, net energy metering bills have been complicated and difficult for customers to understand. No party rejects this statement. Both Utilities and SEIA point out that the timing of any change is challenging. SEIA notes that Utilities have already started the process of necessary changes to their billing systems to prepare for the implementation of the net billing tariff and recommends that any activity regarding bill presentation for this tariff be delayed until after each utility has begun billing customers under the tariff.²⁵⁰ Similarly, Utilities contend that "findings that come at a later date could be duplicative of research already conducted, and it is unlikely that [Utilities] could implement additional findings until quite some time later." However, both Utilities and SEIA, as well as CALSSA, support the establishment of a process to improve customer understanding of net billing tariff bills.

First, the Commission acknowledges that the focus of any billing improvement effort should be on customers of the net billing tariff, given that

²⁵⁰ SEIA Opening Comments to February 1 Ruling at 13-14.

Utilities are “currently working to meet the ambitious compliance deadline to implement the [net billing tariff] by December 15, 2023” and each of the utilities are “in varying stages of planned billing system upgrade initiatives.”²⁵¹ Further, for these same reasons, the Commission recognizes that now is not the appropriate time to begin a process to review net billing tariff billing presentation. As suggested by SEIA, such activity regarding utility net billing tariff bill presentation should be delayed until after Utilities have begun billing customers under the tariff.²⁵² The Commission agrees and finds that such timing would provide the Commission with additional data to pinpoint challenges and recommend solutions to resolve those challenges. However, the Commission is concerned about the past challenges and should ensure that current endeavors by Utilities to implement the net billing tariff include efforts to improve customer understanding of bills without delaying implementation of the tariff.

Accordingly, this decision adopts a two-phase approach to ensuring that net billing tariff customers understand their bills. Phase One will address near-term needs. In Phase One, Utilities shall consult with Energy Division to identify and address cosmetic changes to the net billing tariff bills that improve customer understanding without delaying implementation of the tariff. Phase Two will address future, long-term needs.

In Phase Two, which will begin no later than four months after implementation of the residential net billing tariff, Utilities are directed to seek the participation of parties to develop recommendations for long-term net billing tariff customer bill improvements. The Commission finds that engaging a

²⁵¹ Utilities Opening Comments to February 1 Ruling at 8.

²⁵² SEIA Opening Comments to February 1 Ruling at 14.

statewide vendor for the purposes of developing a standardized bill is neither necessary nor cost effective. As pointed out by SEIA, engaging a statewide vendor “could result in considerable expense, which would be borne by ratepayers.”²⁵³ Utilities contend that these expenses should be funded through Utilities’ net billing tariff memorandum accounts.²⁵⁴

Contending that there are bill presentation issues unique to unbundled customers, Joint CCAs request that deliberations and workshops include review of both bundled and unbundled customer bills.²⁵⁵ Joint CCAs and Utilities agree that there is a long history of working collaboratively to address mutual customer concerns regarding messaging and billing during new initiative rollouts.²⁵⁶ The Commission finds that collaboration between utilities, community choice aggregators, as well as other stakeholders is necessary to ensure that bill presentation issues, including those unique to unbundled customers, are addressed with respect to net energy metering, net billing, and related tariffs.

Accordingly, as recommended by SEIA and CALSSA,²⁵⁷ Utilities shall facilitate a series of regional public workshops targeted to include members of the public taking service on the net billing tariff, community choice aggregators, as well as industry representatives. Utilities shall collaborate with all

²⁵³ SEIA Opening Comments to February 1 Ruling at 14. *See also* Utilities Reply Comments to February 1 Ruling at 3.

²⁵⁴ Utilities Opening Comments to February 1 Ruling at 8.

²⁵⁵ Joint CCAs Opening Comments to Proposed Decision at 3.

²⁵⁶ Joint CCAs Opening Comments to Proposed Decision at 4 and utilities Reply Comments to Proposed Decision at 5.

²⁵⁷ CALSSA Opening Comments to February 1 Ruling at 7 and SEIA Opening Comments to February 1 Ruling at 14

stakeholders including community choice aggregators to ensure both bundled and unbundled customer bill presentment needs are addressed with respect to net energy metering, net billing, and related tariffs. Utilities shall work with Energy Division staff to schedule these workshops and develop the agendas. No later than one year following implementation of the residential net billing tariff, Utilities shall send a letter to the Director of Energy Division, with a copy to the service list of this proceeding, reporting on the recommendations of these workshops. Utilities shall work with Energy Division staff to implement the proposed improvements to net billing tariff customer bills.

This decision clarifies that the proposed improvements developed through the workshops are not required to be standardized across Utilities. The Commission agrees with SEIA that Utilities “need to be able to work within any constraints of their own billing systems and not incur additional expense for the mere purpose of statewide uniformity.”²⁵⁸ Further, the Commission finds it appropriate that expenses for changes to the customer bill be funded from Utilities net billing tariff memorandum accounts established pursuant to D.22-12-056.

3.3.3. Other Customer Protection Issues

In this section, the Commission addresses two general consumer education issues and an existing Utility reporting requirement.

Parties agree that it is not necessary for either the Commission or Utilities to facilitate a workshop to address solar misinformation and false advertising. Utilities assert that the Commission has comprehensively considered consumer protections for fraud (or misinformation and false advertising) in the context of

²⁵⁸ SEIA Opening Comments to February 1 Ruling at 15.

net energy metering and that the benefit of such a workshop would be minimal.²⁵⁹ While not opposed to the idea, CALSSA states that the Consumer Guide already provides these protections.²⁶⁰ SEIA concurs, asserting that the purpose of the Consumer Guide as stated by the Commission is to “enable consumers to make an informed decision about installing solar on their single-family homes and taking service under a net energy metering successor tariff, with particular attention to aggressive or unscrupulous sales tactics.”²⁶¹ SEIA contends that providing consumers with this consumer protection information “is the extent of the Commission’s jurisdiction over these matters” and maintains it “does not see what further outcomes could result from a Commission workshop.”²⁶² The Commission finds such a workshop would be duplicative of other efforts and hence, the Commission should not require a workshop on solar misinformation and false advertising.

The Commission asked parties to consider what outreach Utilities could perform to remind customers to regularly check the performance of their solar system and whether Utilities should be required to alert customers of a non- or under-functioning system.

First, SEIA, CALSSA, and Utilities all agree that it is not the responsibility of Utilities to monitor the performance of a solar customer’s system. SEIA asserts monitoring a solar system’s performance should be the responsibility of the customer.²⁶³ Agreeing with this, CALSSA cautions that the likelihood for false

²⁵⁹ Utilities Opening Comments to February 1 Ruling at 10.

²⁶⁰ CALSSA Opening Comments to February Ruling at 8.

²⁶¹ SEIA Opening Comments to February 1 Ruling at 15.

²⁶² SEIA Opening Comments to February 1 Ruling at 16.

²⁶³ SEIA Opening Comments to February 1 Ruling at 16.

alarms is too high.²⁶⁴ CALSSA asserts that Utilities could not create an accurate warning system based only on data from the main service meter.²⁶⁵ Utilities contend this is not an appropriate role for Utilities and agree they do not have the data to accurately assess a system's performance.²⁶⁶ The Commission agrees that Utilities do not have the ability to accurately determine whether a customer's solar system is performing correctly nor is it an appropriate role for them. The Commission should not require Utilities to alert customers when solar systems are not performing correctly.

While the Commission does not require Utilities to alert customers of malfunctioning systems, this decision finds it appropriate to remind customers of the importance of self-monitoring of systems. Parties suggest including such reminders in the post-approval communication, monthly bills, and utility web pages.²⁶⁷ Utilities offer that while it is the responsibility of the customer to self-monitor, Utilities could "periodically integrate messaging into existing rate education or similar program outreach" but caution that "a balance must be achieved...so there is not an unnecessary burden on the utilities or additional costs that are then passed on to all customers, including those that do not have solar." The Commission finds it efficient and cost-effective to require Utilities to use at least one existing monthly communication to add such a reminder.

The final consumer protection matter is whether to require Utilities to continue to submit quarterly advice letters reporting solar consumer complaints

²⁶⁴ CALSSA Opening Comments to February 1 Ruling at 8.

²⁶⁵ CALSSA Opening Comments to February 1 Ruling at 8.

²⁶⁶ Utilities Opening Comments to February 1 Ruling at 11.

²⁶⁷ See CALSSA Opening Comments to February 1 Ruling at 8 and SEIA Opening Comments to February 1 Ruling at 16.

received. CALSSA, SEIA, and Utilities all agree that the Commission should remove this requirement. CALSSA asserts it is “unclear how tracking this data has better equipped the Commission to solve a particular problem.”²⁶⁸ SEIA questions the effectiveness of the quarterly reports in achieving the purpose which is to aid CSLB in its compliance with AB 1070.²⁶⁹ AB 1070 requires CSLB to annually compile a report documenting consumer complaints relating to solar contractors. Utilities offer that they are unaware of any party actively using this information, including CSLB, which already has a robust process for managing solar installer complaints.²⁷⁰ The Commission finds that the current requirement for Utilities to submit quarterly advice letters reporting solar consumer complaints received is not necessary and should be removed. Accordingly, this decision relieves Utilities of the required submission of the quarterly advice letters.

3.4. Net Billing Tariff Evaluation

This decision authorizes a budget of \$2.5 million from public purpose program funds to conduct an evaluation of the net billing tariff. This decision directs Utilities to select one utility to be the lead utility on the net billing tariff evaluation. The lead utility shall work with Energy Division, as further described below, to develop and issue a Request for Proposal to hire a consultant expert in evaluation methods and processes. Based upon the record of this proceeding, this decision adopts a set of objectives for the hired evaluation consultant to develop the research plan (containing research questions, metrics to measure success, and data needed) for evaluating the net billing tariff. This decision

²⁶⁸ CALSSA Opening Comments to February 1 Ruling at 9.

²⁶⁹ SEIA Opening Comments to February 1 Ruling at 17.

²⁷⁰ Utilities Opening Comments to February 1 Ruling at 12.

adopts an implementation plan for the evaluation, which allows for party participation, as described below. Data collection shall begin on December 15, 2023 and shall be completed in three years, followed by a final report delivered through an Order Instituting Rulemaking to consider the evaluation and make changes necessary to the net billing tariff.

3.4.1. Net Billing Tariff Evaluation Background

In D.22-12-056, the Commission concluded it should conduct an evaluation of the successor tariff, *i.e.*, the net billing tariff. The Commission authorized the Energy Division to conduct the evaluation and “consider the contents of the evaluation and associated party comments in a future proceeding to determine whether changes to the successor tariff or any of its elements are necessary.”²⁷¹ Hence, this decision will not consider recommendations to establish triggers to make changes to the net billing tariff, such as the proposal by 350 Bay Area to establish that a decline of the number of solar system installations of more than 25 percent would indicate a major deviation from state planning goals.²⁷² In D.22-12-056, the Commission stated that it intends to “collect three years of data after full implementation of the successor tariff and follow a similar process as conducted in the Lookback Study.”²⁷³ This decision declines to consider recommendations from Cal Advocates that propose annual evaluations, as this does not comply with the prior direction of the Commission.²⁷⁴

The Commission also stated in D.22-12-056 that while the entire successor tariff would be reviewed, the focus would be on affordability, equity, and grid

²⁷¹ D.22-12-056 at 201.

²⁷² 350 Bay Area Opening Comments to February 1 Ruling at 2.

²⁷³ D.22-12-056 at 200.

²⁷⁴ Cal Advocates Opening Comments to February 1 Ruling at 5.

benefits.²⁷⁵ As explained in D.22-12-056, additional information is needed to better define the parameters of the evaluation, develop and adopt an implementation plan, and authorize the funding for the evaluation. The February 1 Ruling posed several questions to parties to develop the record on these elements.

3.4.2. Funding the Net Billing Tariff Evaluation

This decision begins with a discussion of the evaluation funding amount. Both SEIA and Utilities note that the budget for the Lookback Study was \$2 million.²⁷⁶ Utilities assert this should be the maximum budget for the evaluation.²⁷⁷ SEIA contends that given the passage of time and the complexity of the successor tariff, the budget should be enhanced in comparison.²⁷⁸ The Commission agrees that a budget amount larger than the 2019 Lookback Study is necessary given the passage of time, *i.e.*, inflation, and recognizing not only the complexity of the net billing tariff but also the various competing objectives required of the tariff. This decision finds that a twenty-five percent increase is reasonable for the evaluation budget to address approximately five years of inflation and the increased complexity of the Net billing tariff compared to the NEM 2.0 tariff that was reviewed in the Lookback Study. Hence, the Commission should authorize a maximum budget of \$2.5 million budget for the evaluation.

²⁷⁵ D.22-12-056 at 200.

²⁷⁶ See D.18-09-044 at Ordering Paragraph 13 authorizing Utilities \$2 million to be set aside for the measurement and evaluation of the net energy metering successor tariff, *i.e.*, the NEM 2.0 tariff.

²⁷⁷ Utilities Opening Comments to February 1 Ruling at 20.

²⁷⁸ SEIA Opening Comments to February 1 Ruling at 30 and Reply Comments to February 1 Ruling at 7.

Turning to the source for this funding, when asked whether public purpose program surcharges should be the funding source for the evaluation, both Cal Advocates and SEIA support relying on public purpose program surcharges to fund the evaluation, as had been the case with the Lookback Study.²⁷⁹ Utilities state that D.22-12-056 requires that all costs associated with the evaluation be recorded in memorandum accounts. Utilities further assert the costs were to be recovered in a general rate case.²⁸⁰ In reply comments, Utilities state that such a mechanism needs to be determined and that they do not oppose recovery through the public purpose program surcharges.²⁸¹

The Commission agrees the costs of the evaluation should be funded by the public purpose program surcharges, as had been the case for the Lookback Study, as indicated in D.18-09-044.²⁸² While it is true that the Commission directed Utilities to track evaluation costs in a memorandum account, the Commission did not specify in D.22-12-056 the rate recovery mechanism for the evaluation. Accordingly, the Commission identifies the source of funding as public purpose program surcharges. Utilities are directed to continue to track the evaluation costs in the memorandum account and shall collect their proportionate costs through the public purpose program: PG&E: 40 percent, SDG&E: 20 percent, and SCE: 40 percent.

²⁷⁹ Cal Advocates Opening Comments to February 1 Ruling at 9 and SEIA Opening Comments to February 1 Ruling at 30.

²⁸⁰ Utilities Opening Comments to February 1 Ruling at 21.

²⁸¹ Utilities Reply Comments to February 1 Ruling at 3.

²⁸² See D.18-09-044 at Ordering Paragraph 13 authorizing Utilities to establish a balancing account to collect its proportionate share of the \$2 million for the measurement and evaluation of the NEM 2.0 tariff and "collect those costs through their respective public purpose program surcharges."

3.4.3. Parameters of the Net Billing Tariff Evaluation

Turning to the parameters of the evaluation, parties were queried about the evaluation questions, metrics by which to answer the questions, and specifics on the data to be collected for the evaluation.

When asking parties to consider the evaluation questions to be answered, the February 1 Ruling reminded parties that the evaluation of the net billing tariff should focus on affordability, equity, grid benefits, and storage (battery) dispatch trends. The February 1 Ruling also noted the goals of the tariff, such as improving reliability of electricity in California, reducing greenhouse gas emissions, encouraging electrification of consumer end uses in transportation and buildings, and protecting consumers.

In response to the February 1 Ruling, CALSSA, Utilities, and SEIA acknowledged the eight areas of focus provided by the ruling and offered a diverse range of questions for the evaluation to consider while touching upon the tariff objectives and evaluation focus points. These proposed evaluation research questions are presented in Table 11 below.

Table 11

Proposed Evaluation Research Questions²⁸³		
Party	Focus Area	Question
Utilities	<ul style="list-style-type: none"> • Affordability • Equity 	Has the net billing tariff reduced the impact of the cost shift, especially among low-income customers?

²⁸³ 350 Bay Area Opening Comments to February 1 Ruling at 2; CALSSA Opening Comments to February 1 Ruling at 9-11; SEIA Opening Comments to February 1 Ruling at 18-19; and Utilities Opening Comments to February 1 Ruling at 18-19.

Proposed Evaluation Research Questions²⁸³		
Party	Focus Area	Question
Utilities	<ul style="list-style-type: none"> • Affordability • Equity 	Has the net billing tariff resulted in benefits that approximately equal costs considering the various perspectives of the total energy system, program participants, non-participating ratepayers and utilities administering the program? How have these answers changed from the NEM 1.0/2.0 tariffs to the net billing tariff?
Utilities	<ul style="list-style-type: none"> • Grid Benefits 	Does the net billing tariff encourage customers to export their generated energy during times that are most beneficial to the grid?
Utilities	<ul style="list-style-type: none"> • Battery Dispatch 	Has the net billing tariff successfully encouraged storage adoption?
Utilities	<ul style="list-style-type: none"> • Encouraging Electrification 	Has the net billing tariff successfully encouraged electrification among adopting customers and do customers who use the oversizing attestation provision increase their load consistent with the attestation? How have these answers changed from the NEM 1.0/2.0 tariffs to the net billing tariff?
Utilities	<ul style="list-style-type: none"> • Equity 	What is the adoption rate of solar and storage systems and what are the characteristics of installed systems and customers taking service under the net billing tariff? Has the net billing tariff successfully encouraged solar and/or storage adoption among low-income customers and customers in Disadvantaged Communities?
Utilities	<ul style="list-style-type: none"> • Battery Dispatch 	What are the primary drivers of solar and storage adoption among the net billing tariff customers?
CALSSA	<ul style="list-style-type: none"> • Grid Benefits • Reliability • Greenhouse Gas Emissions • Battery Dispatch 	What are the net impacts of net billing tariff customers' systems on energy usage in hours of the year that approach constraints on distribution capacity?

Proposed Evaluation Research Questions²⁸³		
Party	Focus Area	Question
CALSSA	<ul style="list-style-type: none"> • Grid Benefits • Reliability • Greenhouse Gas Emissions • Battery Dispatch 	What are the net impacts of net billing tariff customers' systems on energy usage in the hours of the year when wholesale energy prices go above a threshold of \$200/MWh or when the CAISO issues emergency alerts?
CALSSA	<ul style="list-style-type: none"> • Grid Benefits • Reliability • Greenhouse Gas Emissions • Battery Dispatch 	To what extent does energy storage installed at individual customer locations act as a community asset during grid outages?
CALSSA	<ul style="list-style-type: none"> • Equity 	What are the levels of solar and storage adoption by income level?
CALSSA and 350 Bay Area	<ul style="list-style-type: none"> • Affordability 	What is the impact of systems installed under the net billing tariff in meeting the state's long-term greenhouse gas reduction targets? How does the trajectory of the net billing tariff adoption compare to a realistic alternative of fully meeting the targets with less net billing tariff adoption?
CALSSA	<ul style="list-style-type: none"> • Encouraging Electrification 	What portion of customers enrolling in the net billing tariff have installed other electrification technologies? What are the customer economics of installing electrification technologies with and without solar and storage under the net billing tariff?
CALSSA	<ul style="list-style-type: none"> • Protecting Customers 	What are the trends in compliance with the requirements related to the Consumer Guide?

Proposed Evaluation Research Questions²⁸³		
Party	Focus Area	Question
SEIA	<ul style="list-style-type: none"> • Affordability 	Is the net billing tariff cost-effective?
SEIA	<ul style="list-style-type: none"> • Equity 	Are low-income customers taking service under the net billing tariff? How many of these customers reside in disadvantaged communities?
SEIA	<ul style="list-style-type: none"> • Use of Solar Systems Paired with Storage 	How many customers have installed solar versus solar paired with storage?
SEIA	<ul style="list-style-type: none"> • Encouraging Electrification 	Have customers on the net billing tariff adopted electric vehicles, electric heat pumps, etc.
SEIA	<ul style="list-style-type: none"> • Battery Dispatch • Reliability 	Are net billing tariff customers dispatching storage in a manner which enhances grid reliability.
SEIA	<ul style="list-style-type: none"> • Reducing Greenhouse Gas Emissions 	Are net billing tariff customers dispatching storage in a manner which helps reduce greenhouse gas emissions?
SEIA	<ul style="list-style-type: none"> • Protecting Customers 	Is the net billing tariff the subject of complaints to the utility, the Commission, or the California Solar Labor Board?

The Commission finds the diverse set of questions in Table 11 to be valuable and should be considered by the consultant hired to perform the evaluation. However, the Commission is concerned about adopting a specific set of questions for the evaluation and not having the flexibility to revise the questions if faced with one or more of the following conditions: (1) a reasonable question was not previously considered; (2) a question was asked in a way that is not sufficiently neutral or is not sufficiently encompassing; and/or, (3) a question did not include all available options. Additionally, the Commission finds that consultants working in the field of evaluation may have additional insight into evaluation research question development that the Commission or parties do not

have. Hence, this decision determines that the specific questions to be asked in the evaluation should be developed by evaluation experts, *i.e.*, the consultants hired to perform the evaluation, with Commission and party input. However, the consultant hired to perform the evaluation is directed to consider the set of proposed research questions contained in Table 11, as well as others contained in the record of this proceeding, when developing their research plan for the evaluation of the net billing tariff.

In lieu of adopting a specific set of research questions, the Commission finds it is prudent to adopt a set of evaluation objectives to guide the evaluation question development. The objectives should align with the questions provided by parties, as well as the directives of D.22-12-056 (equity, affordability, grid benefits, and improving storage (battery) dispatch trends) and the goals of the net billing tariff.

With respect to the goals of the net billing tariffs, the February 1 Ruling was incomplete in describing the goals. The February 1 Ruling stated that in addition to the directives cited above, the goals included improving reliability, reducing greenhouse gas emissions, encouraging electrification, and protecting consumers. However, two other goals, not mentioned in the Ruling, were discussed throughout D.22-12-056. The first additional goal for the net billing tariff is that the tariff ensures sustainable growth of the industry. While D.22-12-056 determined that parties “have varying interpretations of the phrase “grow sustainably,” the decision clarified that because most customer-sited renewable distributed generation in California is from solar systems, the sustainable growth of the solar industry must also be considered to ensure the sustainable growth of customer-sited renewable distributed generation. Hence, the evaluation objectives should include reviewing trends in the rooftop solar

industry. Additionally, to avoid a reoccurrence of an insufficient analysis of the multitenant properties, as had been the case in the 2019 Lookback Study²⁸⁴, the evaluation should ensure a thorough analysis of the virtual net billing tariff and the Aggregation subtariff.

This decision finds the set of evaluation objectives, as presented in Table 12 below, to be reasonable as they address the directives of D.22-12-056 (focus on equity, affordability, grid benefits, and use of solar paired with storage) and the goals of the net billing tariff (considering impact on solar industry, improving reliability, reducing greenhouse gas emissions, encouraging electrification, and protecting consumers), while also aligning with party recommendations in Table 10 above. The Commission should adopt these objectives.

Table 12

Objectives for Net Billing and Related Tariffs Evaluation Research Questions
a. The evaluation should determine whether customer generation tariffs are equitable and the extent to which tariff costs are shifted to non-participating customers. This objective addresses the directive of D.22-12-056 to focus on equity and affordability.
b. The evaluation should quantify the customer generation tariffs' effects on greenhouse gas emissions and their impacts on California's greenhouse gas emissions reductions objectives. This objective addresses the goal of reducing greenhouse gas emissions.
c. The evaluation should quantify the customer generation tariffs' impacts on California's electrification goals. This objective addresses the goal of encouraging electrification.

²⁸⁴ See D.22-12-056 at 183.

Objectives for Net Billing and Related Tariffs Evaluation Research Questions
d. The evaluation should quantify the customer generation tariffs' impacts on the electric grid, including but not limited to the timing of customers' grid energy use, storage (battery) dispatch trends, and electrification of consumer end uses. This objective addresses the directive of D.22-12-056 to focus on grid benefits and storage (battery) dispatch trends, but also addresses the goal of encouraging electrification.
e. The evaluation should assess trends in installation of distributed generation, including stand-alone solar, solar paired with storage, and wind systems, and assess market trends such as customer prices for such systems. This objective addresses the goal to consider the impact of the net billing tariff on the solar industry and customer-sited renewable distributed generation, as well as the directives of D.22-12-056 to focus on affordability and the use of solar systems paired with storage.
f. The evaluation should assess the effects of the Commission's consumer protection measures on customers enrolled in customer generation tariffs. This objective addresses the goal of protecting consumers.

For the same reasons discussed above, the metrics by which to measure success of the successor tariffs and the data needed should also be developed by the evaluation consultant in consultation with the Commission and parties. However, the Commission finds the party recommendations to be valuable and should be considered by the consultant hired to perform the evaluation, when developing the metrics and the data needs for the evaluation. Metrics proposed by parties are presented in Table 13 below and data needs proposed by parties are presented in Table 14 below. These tables do not represent comprehensive lists of metrics or data, but rather a starting point. Consultants hired to perform the evaluation are directed to consider the metrics and data needs contained in these two tables and in the record of this proceeding when developing their research plan.

Parties were also asked about differentiating among customer types, subtariffs, generation types, or electrification technologies when collecting and analyzing data for the evaluation. Generally, all parties filing comments responding to these questions state that data collection and analysis should consider differentiation between customer type (*e.g.*, residential) or customer location (*e.g.*, coastal).²⁸⁵ The Commission concurs that such differentiation should occur, especially to address such objectives as equity and affordability. Hence, this decision finds that ensuring that such differentiation occurs should be adopted as an additional overall objective of the evaluation.

Table 13

Proposed Metrics²⁸⁶		
Party	Focus Area	Question
Cal Advocates	<ul style="list-style-type: none"> Affordability 	<ul style="list-style-type: none"> Cost-effectiveness evaluations, including the Ratepayer Impact Measure score and an adapted equity Ratepayer Impact Measure score Total Cost Shift (\$)
Cal Advocates	<ul style="list-style-type: none"> Impact on Solar Industry 	<ul style="list-style-type: none"> Installed capacity by key customer demographics (MW) Relevant demographic information includes low-income program eligibility (<i>e.g.</i>, CARE) and geographic location.
Cal Advocates	<ul style="list-style-type: none"> Use of Solar Systems Paired with Storage 	<ul style="list-style-type: none"> Information regarding customer system type (<i>i.e.</i>, solar-only, storage-only, or paired systems).

²⁸⁵ See 350 Bay Area Opening Comments to February 1 Ruling at 3, Utilities Opening Comments to February 1 Ruling at 18 and SEIA Opening Comments to February 1 Ruling at 26.

²⁸⁶ 350 Bay Area Opening Comments to February 1 Ruling at 2-3; Cal Advocates Opening Comments to February 1 Ruling at 7-8; SEIA Opening Comments to February 1 Ruling at 19-20; and Utilities Opening Comments to February 1 Ruling at 13-15.

Proposed Metrics²⁸⁶		
Party	Focus Area	Question
350 Bay Area	<ul style="list-style-type: none"> • Impact on Solar Industry 	<ul style="list-style-type: none"> • Installed systems by customer class • Total megawatts installed
SEIA	<ul style="list-style-type: none"> • Affordability • Equity 	<ul style="list-style-type: none"> • Results of the Total Resource Cost test and the Ratepayer Impact Measure test. • Percentage of low-income net billing tariff customers with stand-alone solar systems, and those with solar systems paired with storage
SEIA	<ul style="list-style-type: none"> • Encouraging Electrification 	<ul style="list-style-type: none"> • Net billing tariff customers adopting electric vehicles, etc. with stand-alone solar systems, and those with solar systems paired with storage. • Customer usage
SEIA	<ul style="list-style-type: none"> • Reliability • Reducing Greenhouse Gas Emissions 	<ul style="list-style-type: none"> • Net billing tariff customer Storage dispatch trends
SEIA	<ul style="list-style-type: none"> • Protecting Customers 	<ul style="list-style-type: none"> • Number of net billing tariff customer complaints regarding sale or operation of their net billing tariff system.
Utilities	<ul style="list-style-type: none"> • Equity 	<ul style="list-style-type: none"> • Total annual cost shift in dollars by utility service territory
Utilities	<ul style="list-style-type: none"> • Affordability 	<ul style="list-style-type: none"> • Total Resource Cost test results • Participant Cost Test results • Ratepayer Impact Measure test results • Program Administrator Cost test results
Utilities	<ul style="list-style-type: none"> • Grid Benefits 	<ul style="list-style-type: none"> • Export load shape for net billing tariff customers • Net billing tariff customers enrolled in demand pilot or programs

Proposed Metrics²⁸⁶		
Party	Focus Area	Question
Utilities	<ul style="list-style-type: none"> Reducing Greenhouse Gas Emissions 	<ul style="list-style-type: none"> Net greenhouse gas emission reductions
Utilities	<ul style="list-style-type: none"> Storage Adoption 	<ul style="list-style-type: none"> Number and percentage of solar systems paired with storage compared to total systems
Utilities	<ul style="list-style-type: none"> Encouraging Electrification 	<ul style="list-style-type: none"> Number and percent of adoption of technologies that rely on electric, <i>e.g.</i>, heat pumps, etc. Number and percentage of customers whose load has increased after net billing tariff enrollment

Table 14

Proposed Data To Be Collected²⁸⁷
<ul style="list-style-type: none"> Utility billing data Utility interconnection data Low-and Medium-Income, Disadvantaged Communities, and high-fire threat district customer participation data Customer/developer/manufacturer/installer surveys and interviews Generation and storage charge/discharge data from developers/manufacturers Meter data for electricity consumption and generation to the grid WattTime greenhouse gas signal or Avoided Cost Calculator greenhouse gas marginal emissions rates to calculate greenhouse gas emissions Annual avoided costs

²⁸⁷ 350 Bay Area Opening Comments to February 1 Ruling at 3-4; Cal Advocates Opening Comments to February 1 Ruling at 8; CALSSA Opening Comments to February 1 Ruling at 10-12; SEIA Opening Comments to February 1 Ruling at 20-26; and Utilities Opening Comments to February 1 Ruling at 16-18.

Proposed Data To Be Collected²⁸⁷
<ul style="list-style-type: none"> • Weather Data • Load Shape Selection • Performance Modeling • Bill savings / retail rate levels and design • Annual distributed energy resource costs, by system component • Tax Treatment • Incentives • Interconnection costs • Utility meter data on consumption/generation • CARE/FERA customer participation data and customer ZIP codes • Data on distributed energy resource adoption: customer surveys and trends in the oversizing of Generating Facilities and the payment of net surplus compensation

3.4.4. Evaluation Implementation Plan

The February 1 Ruling summarized the implementation plan for the Lookback Study as one that:

authorized Energy Division to select an independent evaluation consultant through a request for proposal (RFP) process managed by San Diego Gas & Electric Company (SDG&E) on behalf of the Commission for this evaluation work. Energy Division staff drafted the RFP and made the final decision on the winning bidder. After the effective date of the agreement with the selected consultant, SDG&E submitted a Tier 2 advice letter detailing key aspects of the evaluation, including the draft research plan developed by the selected consultant, on the Rulemaking (R.) 14-07-002 proceeding’s service list for public review and comment. Stakeholder input was considered and acted on, where warranted. As authorized in D.18-09-044, the Commission’s Energy Division Director approved the final research plan by letter. In coordination with Energy Division, the winning consultant hosted a public meeting to allow stakeholders and interested parties to comment and provide input on the draft study report. Finally, a final report was published as part of a ruling and comments were submitted.²⁸⁸

²⁸⁸ February 1 Ruling, Attachment 3 at 2.

Parties were asked whether they supported this same process to evaluate the net billing tariff. Before addressing the evaluation implementation process, this decision discusses three overarching concerns.

First, the Commission clarifies that this decision only addresses the steps up to, but not including, consideration of the evaluation's results and recommendations. As described in D.22-12-056, the "Commission will consider the contents of the evaluation and associated party comments in a future proceeding to determine whether changes to the successor tariff or any of its elements are necessary."²⁸⁹ Hence, contentions regarding the review of the previous Lookback Study and implications for the review of the net billing tariff evaluation will not be considered in this decision.²⁹⁰ For the same reasons, this decision declines to adopt the Response to Recommendation (RTR) Process as described in the February 1 Ruling. Although some parties largely oppose adoption of the RTR Process,²⁹¹ it could be reconsidered in the future proceeding that reviews the evaluation of the net billing tariff. This determination is limited to the net billing tariff evaluation. While the Commission declines to formally adopt the RTR process for the evaluation, there is nothing in the record of this proceeding that requires the Commission to prohibit Energy Division from using this tool on an informal basis in the evaluation process.

Second, CALSSA reiterated prior concerns with the evaluation process for the Lookback Study, stating that "at no point was there opportunity for data

²⁸⁹ D.22-12-056 at 200.

²⁹⁰ CALSSA Opening Comments to February 1 Ruling at 12; SEIA Opening Comments to February 1 Ruling at 28, and 350 Bay Area Reply Comments to February 1 Ruling at 2.

²⁹¹ CALSSA Opening Comments to February 1 Ruling at 13; Utilities Opening Comments to February 1 Ruling at 20; and SEIA Opening Comments to February 1 Ruling at 29-30.

requests to Verdant, and the Commission issued no judgment on Verdant's response to parties' criticisms of the draft report."²⁹² The Commission discussed these and similar concerns in D.22-12-056, finding that "CALSSA's contention that the study 'assumptions are or appear flawed' is not persuasive; CALSSA and all stakeholders have been given several opportunities to weigh in on both the development and drafting of the study."²⁹³ Furthermore, the Commission disagrees with CALSSA's assertion that "it was a significant problem in this proceeding that parties were not allowed to submit data requests to Verdant on the January 2021 Lookback Study," which "resulted in the Commission relying on information that some parties thought was erroneous and correctable."²⁹⁴ As the Commission previously stated in D.22-12-056, "a disagreement on an assumption does not equate to a flaw in the assumption."²⁹⁵

Third, this decision addresses Cal Advocates' comments advocating for annual evaluations. Cal Advocates proposes the net billing tariff and its predecessor tariffs should be annually evaluated by Energy Division "against legislative and Commission goals, starting one year from the NEM 2.0 sunset date."²⁹⁶ Cal Advocates also recommends that "no modifications to the

²⁹² CALSSA Opening Comments to February 1 Ruling at 12.

²⁹³ D.22-12-056 at 42 and Lookback Study at Section 2.4, titled, *Stakeholder Engagement Process* that discusses three opportunities for input: i) in-person workshop; ii) informal comments on draft research plan; and iii) informal written comments on the draft study that were included in the final Lookback Study. Additionally, in a January 21, 2021 Ruling, parties were instructed to file comments responding to questions regarding how the Lookback Study should inform the successor.

²⁹⁴ CALSSA Opening Comments to February 1 Ruling at 12.

²⁹⁵ D.22-12-056 at Finding of Fact 8.

²⁹⁶ Cal Advocates Opening Comments to February 1 Ruling at 5-6.

evaluation process directed by D.22-12-056 should be made.”²⁹⁷ Yet, annual reports or evaluations is clearly a modification of the direction of D.22-12-056, which states that “it is the intention of the Commission to collect data from the successor tariff for three years and then analyze the data and provide a draft evaluation within five years of implementation of the successor tariff.”²⁹⁸ The Commission concludes it should not revise its prior determination to conduct one evaluation of the net billing tariff within five years. Accordingly, this decision denies Cal Advocates requests to conduct annual reports or evaluations of the net billing tariff.

Moving to specific evaluation implementation steps, Utilities assert that the process described in the February 1 Ruling is not efficient since the utility “is used as Energy Division’s conduit to procure a contract with a vendor.”²⁹⁹ Utilities recommend “an efficient and transparent process” where one utility “can take the lead in issuing a request for proposal (RFP) and share proposals with Energy Division and the other [Utilities],” with the vendor selection a collaboration between Energy Division and the Utilities, and the lead utility setting up the contract with the vendor and taking input from Energy Division and the other utilities.³⁰⁰ Utilities also recommend the formation of a working group, where Utilities and Energy Division review and approve the consultant’s draft research plan, which can then be shared to parties for review and feedback.³⁰¹ Once the research plan is in place, Utilities recommend data

²⁹⁷ Cal Advocates Opening Comments to February 1 Ruling at 8.

²⁹⁸ D.22-12-056 at 200.

²⁹⁹ Utilities Opening Comments to February 1 Ruling at 19.

³⁰⁰ Utilities Opening Comments to February 1 Ruling at 19.

³⁰¹ Utilities Opening Comments to February 1 Ruling at 19.

collection “begin the 36th month that customers were able to be billed on the new tariff.”³⁰²

SEIA largely agrees with the process outlined in the February 1 Ruling, with caveats.³⁰³ However, as a threshold question, SEIA contends that the data collected in the next several years may be a limited sample, since it could take several months for these new systems to come online.³⁰⁴ SEIA, therefore recommends postponing the decision of when to begin the evaluation to 2026 and questions whether the five-year deadline remains reasonable.³⁰⁵ Returning to SEIA’s previously requested caveats, SEIA suggests these caveats involve the steps for review of the draft evaluation report and the contents of the final evaluation report. SEIA requests that to improve transparency of the final evaluation report: (1) the draft evaluation report and workpapers be provided to all parties six weeks prior to the proposed workshop and (2) parties should be given the opportunity to submit written questions and receive written responses, with this information included in the final evaluation report.³⁰⁶

CALSSA also supports portions of the proposed evaluation implementation process. CALSSA does not object to a three-year period of analysis, but proposes that data collection should be delayed, rather than occur throughout the analysis period, until after April 15, 2026 to “enable the analysis of three years of installation and operation data under the net billing tariff.”³⁰⁷

³⁰² Utilities Opening Comments to February 1 Ruling at 20.

³⁰³ SEIA Opening Comments to February 1 Ruling at 27.

³⁰⁴ SEIA Opening Comments to February 1 Ruling at 28.

³⁰⁵ SEIA Opening Comments to February 1 Ruling at 29.

³⁰⁶ SEIA Opening Comments to February 1 Ruling at 27-28.

³⁰⁷ CALSSA Opening Comments to February 1 Ruling at 12.

With respect to the draft evaluation report, CALSSA asserts the study methodology and draft analysis should be subject to discovery, and the Commission should respond formally to party comments on the draft study.³⁰⁸

This decision adopts a modified version of the previous evaluation implementation process. The Commission finds that increased efficiency and transparency should lead to an improved process. In comments to the proposed decision, Utilities argue that it would be difficult to commence data collection and perform solicitation and planning activities while completing implementation of the net billing tariff.³⁰⁹ Accordingly, the consultant selection step of the implementation process is revised such that Energy Division is responsible for drafting the RFP and the selection criteria, which should lead to a more efficient process. Further, this decision modifies the timeline such that Energy Division shall issue the RFP within two years of the adoption of this decision to enable a timeline in which the Research Plan will have been approved and final data collection can be completed on or around December 15, 2026.

Moving to the development of the Research Plan, parties were asked whether the final research plan should be submitted as a compliance filing, instead of submitting a Tier 2 advice letter detailing key aspects of the evaluation as had been done for the Lookback Study. CALSSA supports submission of the final research plan as a compliance filing, but only if the draft research plan is issued with a ruling asking questions.³¹⁰ Utilities recommend that instead of submitting the final research plan, Energy Division and Utilities “should form a

³⁰⁸ CALSSA Opening Comments to February 1 Ruling at 12.

³⁰⁹ Utilities Opening Comments to Proposed Decision at 14.

³¹⁰ CALSSA Opening Comments to February 1 Ruling at 12.

working group, which will review and approve the research plan.³¹¹ SEIA opposes this recommendation, asserting that involvement of a larger group of stakeholders, rather than just Energy Division and Utilities, will provide more transparency to the process and will result in a more balanced report.³¹² Further, SEIA opposes submission of the final research plan as a compliance filing, since the final evaluation report will not be a compliance filing.³¹³

The Commission agrees that transparency is important to the success of the evaluation. Hence, the Commission should not establish a working group to finalize the draft research plan. Instead, to promote improved transparency, the Commission should adopt the following steps: (1) the draft Research Plan will be provided to the service list within 90 days following the effective date of the contract or agreement with the selected consultant and at least 10 days prior to a public workshop at which time parties will discuss the draft Research Plan; Energy Division and the consultant shall host the workshop; (2) written informal comments on the draft proposed Research Plan will be received by the consultant; and (3) the final proposed Research Plan will be provided to parties for an additional opportunity to comment. A final Research Plan with modifications based on party comment will be approved through a letter from the Director of Energy Division or their designee.

This decision confirms that as stated in D.22-12-056, the Commission will collect data during the first three years of the net billing tariff. Accordingly, data collection will begin on December 15, 2023, the net billing tariff implementation date. The Commission disagrees with SEIA that the data collected in the next

³¹¹ Utilities Opening Comments to February 1 Ruling at 19.

³¹² SEIA Reply Comments to February 1 Ruling at 8.

³¹³ SEIA Opening Comments to February 1 Ruling at 28.

several years may be limited, especially with regard to residential net billing tariff customers. Further, the Commission is not persuaded by Utilities' comments that it would be difficult to commence data collection by December 15, 2023 or that all data can be collected retroactively.³¹⁴ Utilities currently collect many of the data types listed in Table 14. In order to minimize the risk of finding in 2026 that important data types were not tracked or are inaccessible, Utilities are directed to submit a joint Tier 1 advice letter no later than 30 days from the adoption of this decision proposing the details of the data types. The advice letter shall describe how each data type will be collected and the proposed data collection protocol for the utility and shall include, but is not limited to, the data types listed in Table 14.

The next modification this decision makes is to the draft evaluation report step of this process. The Commission finds that additional transparency here will improve the overall process. Hence the Commission should adopt a transparent process that authorizes Energy Division to provide the draft evaluation report and workpapers to the service list of this proceeding no later than six weeks prior to an Evaluation Report Workshop, as requested by SEIA.³¹⁵ Providing the draft report and workpapers ahead of the workshop will allow parties to prepare questions to ask during the workshop. This, in addition to the workshop itself, should improve understanding of the draft report by parties. To provide additional transparency, written comments on the draft evaluation report following the workshop will also be allowed and will be addressed in the final report.

³¹⁴ Utilities Opening Comments to Proposed Decision at 14.

³¹⁵ SEIA Opening Comments to February 1 Ruling at 27.

The final evaluation process modification is to the final report issuance steps. The Lookback Study was published as part of a ruling and comments were submitted. As directed in D.22-12-056, the “Commission will consider the contents of the evaluation and associated party comments in a future proceeding to determine whether changes to the successor tariff or any of its elements are necessary.”³¹⁶ Accordingly, because this decision closes the instant proceeding, the final net billing tariff evaluation report should be the basis for an Order Instituting Rulemaking (Order) to consider the findings of the evaluation and should be attached to the Order initiating the review.

3.5. Fuel Cell Participation in Net Energy Metering

This decision adopts a revised *Staff Proposal to Implement Net Energy Metering Fuel Cell Greenhouse Gas Emission Standards* (Staff Proposal), modifying the Staff Proposal originally issued through an April 6, 2021 *Email Ruling Directing Comments on Staff Proposal to Implement Net Energy Metering Fuel Cell Greenhouse Gas Emissions Standards*. Attached to this decision, as Appendix B, is the revised Staff Proposal with the modifications made in response to the party comments.

Below, this decision presents the background on this issue along with an overview of the original Staff Proposal, an overview of party comments on the Staff Proposal, and a discussion of the modifications to the Staff Proposal. No later than 60 days from the adoption of this decision, Utilities shall each file a Tier 2 advice letter modifying their individual net energy metering fuel cell (NEMFC) tariffs to align with the directives in this section.

³¹⁶ D.22-12-056 at 200.

Following the discussion of the modifications is a brief discussion of party comments in response to questions asking parties to update the record. As discussed below, these comments ask the Commission to go beyond its jurisdiction and outside the scope of this proceeding in adopting new recommendations. For these reasons, the Commission declines to adopt these recommendations.

3.5.1. Background and Overview of Staff Proposal

In 2016, California Governor Edmund G. Brown Jr. signed into law Assembly Bill (AB) 1637, which extended the sunset date of the NEMFC tariff to December 31, 2021 and amended Pub. Util. Code §2827.10. As described in the aforementioned April 6, 2021 Ruling, the amended Pub. Util. Code §2827.10(b) “requires the California Air Resources Board (CARB) to ‘establish a schedule of annual greenhouse gas emissions reduction standards’ for NEMFC resources and ‘update the schedule every three years with applicable standards for each intervening year.’” The ruling noted that CARB had completed its work in developing a schedule of greenhouse gas standards and the California Office of Administrative Law adopted a rulemaking action (File # 2020-0911-02) establishing CARB’s Fuel Cell Net Energy Metering Greenhouse Gas Standards (CARB Standards). Explaining that the Commission is tasked with determining how to require the investor-owned utilities (Utilities) to verify NEMFC resources’ compliance with the CARB Standards, the Ruling directed parties to comment on the Staff Proposal.

The Staff Proposal recommends procedures for implementing and enforcing the CARB Standards for NEMFC resources. The proposal makes the Utilities responsible for implementing and enforcing the framework for the standards. The proposed framework requires customer-generators with new and

existing fuel cell systems to certify their system meets performance test code requirements and requires customer-generators to recertify on an annual basis based on interconnection date. As customer-generators are permitted to account for a system's use of waste heat utilization or renewable fuel blending in meeting the CARB Standards, the proposed framework presents the calculations for accounting for these savings.

With respect to renewable fuel blending, the proposal provides calculations for both onsite renewable fuel and directed renewable fuel blending. For directed renewable fuel, the renewable fuel is required to be delivered through a dedicated pipeline or injected into a pipeline system. Hence the Staff Proposal provides the required data on the transportation path and energy accounting and gas fuel consumption.

The Staff Proposal also provides instructions on demonstrating compliance with the CARB Standards through a voluntary tariff program that allows a customer-generator to offset fossil fuel natural gas consumption with renewable natural gas.

In a final section, the Staff Proposal describes the worksheet required to be annually submitted by the customer-generator for evaluation purposes to the utility.

3.5.2. Party Recommendations

The following parties filed opening comments to the April 6, 2021 Ruling: Bloom Energy; CALSSA; FCE; National Fuel Cell Research Center (NFCRC); PG&E; Protect Our Communities Foundation (PCF); Cal Advocates; SDG&E; Sierra Club; SCE; Southern California Gas Company (SoCalGas); and The Utility Reform Network (TURN). The following parties filed reply comments to the April 6, 2021 Ruling: Bloom Energy; FCE; NFCRC; PG&E; PCF; Sierra Club; and

SoCalGas. Additionally, in the February 28 Ruling, parties were asked to update the record on this matter. The following parties filed opening comments updating the record on this matter: Bloom Energy; CHBC; FCE; and Utilities. The following parties filed reply comments updating the record on this matter: Bloom Energy; FCE; and Utilities. Below is an overview of party comments on the Staff Proposal.

Bloom Energy asserts that the pathways to demonstrate compliance with the CARB Standard as laid out in the Staff Proposal are generally fair and reasonable and well-targeted towards achieving the goal of reducing greenhouse gas emissions. Bloom Energy offers additional compliance pathways: (1) the Self-Generation Incentive Program allowance for waste heat; (2) consider all available renewable fuels, including hydrogen, as eligible; (3) the capture of carbon; (4) recognize the verified methane reductions that stem from responsibly sourced gas; and (5) provide for equivalent credits to be applied to customer-generators when a fuel cell within California repurposes a waste source into energy that is then directed to the grid. Bloom Energy also recommends the creation of a dispute resolution process.

Cal Advocates recommends the Commission require customer-generators to annually recertify their fuel system's compliance with the CARB standards. For systems using renewable fuel blends, Cal Advocates recommends that the effective emissions rate should equal the actual emissions rate. Cal Advocates recommends that onsite inspection of fuel sources be required for directed biogas projects. Lastly, Cal Advocates recommends that the CARB Standards be applicable to all NEMFC resources, both existing and future installations.

CALSSA filed comments stating that they take no position on the Staff Proposal.

FCE states that it generally supports the components of the compliance regime described in the Staff Proposal and would support a final decision that mandates compliance mechanisms that are straightforward, proven effective, and that afford customer-generators a reasonable path to ensure greenhouse gas emissions decline according to standards and without being unduly costly or burdensome. FCE supports the inclusion of (1) biogas blending as a compliance mechanism; (2) recovered waste heat as a mechanism to reduce greenhouse gas emissions; and (3) a compliance regime focused on reducing greenhouse gas emissions. FCE recommends use of existing Self-Generation Incentive Program mechanisms to ensure compliance reporting. FCE cautions that monitoring systems like a Continuous Emission Monitoring System or Light Detection and Ranging would add significant unnecessary costs. Further, FCE asserts that fugitive emissions are accounted for in the gas procurement process and any additional requirements for testing would drive costs with little additional benefit.

PG&E considers the Staff Proposal thorough and comprehensive but makes several recommendations for a more nuanced approach. PG&E suggests less stringent documentation requirements for smaller fuel cell systems and opportunities to cure any delinquencies, which will lead to a more cost-effective and efficient process and perhaps less customer confusion. PG&E notes that it has not conducted field inspections to verify compliance with greenhouse gas emissions standards and thus will depend on the manufacturer of the fuel cell equipment to certify compliance at interconnection and at recertification.

PCF generally agrees with the Staff Proposal but recommends the inclusion of a citation and penalty procedure for failure to accurately or timely report emissions. PCF contends that the Commission should not require Utilities

to conduct field inspections unless called for by the Commission but instead adopt an active monitoring system that includes daily and annual reporting. Other recommendations include a requirement to certify the percentage of captured waste heat used for heating needs, the adoption of a blending policy that aligns with clean energy policy, a requirement to reevaluate existing installations with revised CARB greenhouse gas emissions calculations, and establishment of a policy that, regardless of online date, each installation must emit fewer kilograms of carbon dioxide equivalent per megawatt-hour (kgCO₂e/MWh) than the California electricity grid's average emissions. Also, as a threshold matter, PCF asserts that CARB appears to have used incorrect inputs for calculations regarding maximum fuel cell emissions allowed for the NEMFC tariff.

SDG&E recommends that CARB, which performs similar functions, be responsible for administering and tracking greenhouse gas emission verification for fuel cell generators. SDG&E contends that it would be administratively burdensome for Utilities to take on the compliance verification as described in the Staff Proposal. SDG&E asserts that it does not have the expertise and would need additional resources and expenses to perform the proposed functions. That being said, SDG&E recommends that any compliance regime be as simple and cost effective as possible and limit any cost burden to non-participating ratepayers.

Sierra Club asserts that the Staff Proposal does not present a robust compliance regime that avoids loopholes and the opportunity for gaming. Sierra Club opposes the proposal to allow use of biogas as a compliance mechanism due to serious verification and compliance issues identified in the Self-Generation Incentive Mechanism proceeding. Furthermore, Sierra Club contends

the use of compliance through attestation does not provide adequate assurance of compliance and recommends onsite inspections by an independent third party retained by the Commission and funded by customer-generators.

SCE contends the Utilities lack the experience or expertise to implement and oversee the compliance actions proposed in the Staff Proposal. SCE asserts the Staff Proposal misinterprets AB 1637 regarding Utilities' responsibilities on this matter. SCE contends it is Utilities' responsibility to verify, prior to interconnection, that a project complies with Schedule NEMFC requirements to use Commission-approved technology that: (1) will achieve reductions in emissions of greenhouse gases in compliance with CARB's emissions reduction schedule; and (2) is certified under CARB's distributed generation certification program. SCE submits that if there must be ongoing, post-interconnection certification requirements, such certification should be implemented and administered by CARB.

SoCalGas recommends the Commission adopt simple and pragmatic policies and generally agrees with the Staff Proposal but recommends a few modifications. First, with respect to the first-year emissions of fuel cells, SoCalGas recommends the Commission use the ASME Performance Test Code (PTC) 50-2002 test results to calculate these emissions. While agreeing that recertification should occur, SoCalGas asserts that recertification is necessary only once after the triennial CARB greenhouse gas emission standard update and should not require a new ASME PTC 50-2002 performance test. SoCalGas supports the Staff Proposal method to account for the benefits of using renewable fuels.

TURN's comments were limited to the proposal to allow biomethane (or "renewable fuel") as a method of meeting the greenhouse gas emissions

standards. TURN contends it is not appropriate to allow NEMFC resources to meet the CARB Standards through reliance on biomethane delivered via a common carrier pipeline.

3.5.3. Adopted Modifications to the Net Energy Metering for Fuel Cells Tariff

Based on the record of this proceeding, the Commission makes a clarification and several changes to the Staff Proposal. No later than 60 days from the adoption of this decision, Utilities shall each submit a Tier 2 advice letter updating the NEMFC tariff as directed below. Utilities shall make every effort to ensure language uniformity.

3.5.3.1. NEMFC Tariff: Applicability

First, as a threshold issue, Bloom Energy requests clarification regarding the applicability of the proposed compliance framework. Bloom Energy maintains that only fuel cell customer-generators installed after the passage of AB 1637 are required to comply with the adopted compliance framework. Contending there is no express retroactivity clause, Bloom Energy asserts that the statute must be interpreted as prospective in the absence of clear, retroactive application.³¹⁷ Bloom Energy further provides a letter from the author of the legislation stating that the intention of the legislation was not to apply the standards to fuel cells installed prior to 2017.³¹⁸ NFCRC and PG&E note that the current approved PG&E NEMFC tariff allows customers taking service on or after January 1, 2017, to take service on the NEMFC tariff with the understanding that they will have to meet the CARB Standards.³¹⁹ FCE takes a more stringent

³¹⁷ Bloom Energy Opening Comments to April 6, 2021 Ruling at 16-17.

³¹⁸ Bloom Energy Opening Comments to April 6, 2021 Ruling at 18 and Attachment B.

³¹⁹ NFCRC Reply Comments to April 6, 2021 Ruling at 3 and PG&E Opening Comments to April 6, 2021 Ruling at 6.

interpretation of AB 1637, contending that only fuel cell systems installed after the adoption of this decision should be required to comply with AB 1637.³²⁰ PCF disagrees with both FCE and Bloom Energy's interpretation of AB 1637 stating that AB 1637 reflects a blanket application to all fuel cell systems participating in net energy metering, which aligns with California energy policy.³²¹ PCF notes that the language of the statute states that: "greenhouse gas emissions reduction standards shall ensure that *each* fuel cell electrical generation resource... reduces greenhouse gas emissions compared to the electrical grid resources" [emphasis added].³²²

The Commission concludes that the adopted Staff Proposal should be applicable to all NEMFC resources installed after the effective date of AB 1637; i.e., January 1, 2017. For consistency, the Commission defines the installation date as the date on which a fuel cell system received permission to operate from the applicable utility. While the Commission agrees with PCF that the language of the statute states that the CARB Standards will be applicable to each fuel cell electrical generation resource, absent a retroactive clause, it would not be fair to apply the new standards to NEMFC resources installed prior to enactment of the legislation. The Staff Proposal is amended to include this clarification.

In comments to the proposed decision, Sierra Club alleges legal error. Sierra Club asserts that the reference to the letter from the author of AB 1637 should not dictate the applicability of the statute.³²³ The letter is in the record of this proceeding, as such it is reasonable to discuss it in this decision. However,

³²⁰ FCE Opening Comments to April 6, 2021 Ruling at 14.

³²¹ PCF Reply Comments to April 6, 2021 Ruling at 9.

³²² PCF Reply Comments to April 6, 2021 Ruling at 9 citing Pub. Util. Code §2827.1(b)(2).

³²³ Sierra Club Opening Comments to Proposed Decision at 2-3.

the Commission does not rely upon the letter to make its determination. As stated above, the Commission relies upon the legislation itself, and the lack of a retroactive clause to make the determination that the statute is only applicable to fuel cell systems installed as of the effective date of the legislation, i.e., January 1, 2017.

3.5.3.2. NEMFC Tariff: Compliance Regime Matters

The Staff Proposal places the responsibility to implement and enforce the standards as outlined in the proposed framework on the Utilities. SDG&E and SCE contend Utilities do not have the expertise to carry out these duties and recommend that CARB be responsible for implementing the compliance regime. The Commission disagrees. The tariff is a Commission regulated tariff and such compliance should be conducted through the Commission. As Utilities are also regulated by the Commission and are responsible for ensuring safe and compliant interconnection, the Commission finds that Utilities are the appropriate entities to conduct this work and the Staff Proposal should reflect this. The Commission will maintain this responsibility in the modified Staff Proposal.

All Utilities agree that the compliance regime should be simple and cost effective and limit any shifting of costs to nonparticipating ratepayers.³²⁴ The Commission agrees that ratepayers should not be responsible for the costs of this compliance. Pub. Util. Code §2827.10 (e)(2) authorizes the Commission to allow Utilities to charge a fee to a fuel cell customer-generator to recover the costs “associated with providing interconnection inspection services.” The Commission finds such a fee will allow the Commission to meet the

³²⁴ PG&E Opening Comments to April 6, 2021 Ruling at 2.

requirements of complying with the CARB Standards while protecting ratepayers from additional costs. Accordingly, the Staff Proposal should be updated to require: (1) a revised interconnection application fee to reflect the additional cost in ensuring initial compliance with the CARB Standards; and (2) an annual documentation fee reflecting the costs to administer the annual collection and processing of certifications.

In the required Tier 2 advice letter, due no later than 60 days following the adoption of this decision, Utilities shall propose an updated interconnection application fee and an annual documentation fee. Pursuant to D.16-01-044, the interconnection fee shall be based solely on the following costs incurred for NEMFC resources less than one MW in size: NEM Processing and Administrative Costs, Distribution Engineering Costs, and Metering Installation/Inspection and Commissioning Costs. Utilities shall report NEMFC tariff interconnection and documentation costs in the annual “Net Energy Metering and Net Billing Tariff Annual Reporting Advice Letter,” as established in D.22-12-056.³²⁵ Utilities are authorized to propose any necessary changes to these fees through submission of a Tier 2 advice letter, as directed in D.16-10-044.³²⁶

3.5.3.3. NEMFC Tariff: Reporting Requirements

The Staff Proposal recommends that for both new and existing fuel cell systems, the customer-generator must use performance test code ASME PTC 50-2002³²⁷ to determine the first-year emission rate but this must be adjusted

³²⁵ D.22-12-056 at Ordering Paragraph 6.

³²⁶ D.16-01-044 at 88.

³²⁷ Performance Test Codes (PTC) are developed and published by the American Society of Mechanical Engineers (ASME). ASME is “a not-for-profit professional organization that enables
Footnote continued on next page.

by a model-specific performance degradation assumption to yield the system's emission rate. SoCalGas agrees but cautions that the performance test is not feasible for some sub-systems, *i.e.*, waste heat recovery.³²⁸ Hence, SoCalGas recommends the Commission allow alternative documentation, such as calculations from data found on manufacturer specification sheets.³²⁹

The Commission agrees that there are times when the performance test is not feasible and finds that an alternative calculation using equipment specification sheets with the fuel input rate and net electrical power output and the useful heat rate for Combined Heat and Power systems is a reasonable alternative. Thus, the Commission concludes it should allow for alternate calculations when the ASME calculation is not feasible. However, this decision stresses that the standard calculation should be the ASME PTC 50-2002 test results. Accordingly, the Staff Proposal is revised to allow for calculations based on equipment specification sheets, as an alternative only when the ASME PTC 50-2002 test is not feasible.

In comments to the proposed decision, Bloom contends that performance tests are unnecessarily time and resource intensive, but Bloom provides no evidence to support these contentions.³³⁰ Furthermore, Bloom argues for the use of real-time data over degradation assumptions while also arguing that “a

collaboration, knowledge sharing and skill development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education, and professional development programs provide a foundation for advancing technical knowledge and a safer world.” See www.asme.org.

³²⁸ SoCalGas Opening Comments to April 6, 2021 Ruling at 3.

³²⁹ SoCalGas Opening Comments to April 6, 2021 Ruling at 2. See also SoCalGas Opening Comments to April 6, 2021 Ruling at 3 and 7.

³³⁰ Bloom Opening Comments to Proposed Decision at 13.

performance test is not feasible because it “requires samples and real-time data.”³³¹ The Commission is not persuaded by Bloom’s arguments.

The Staff Proposal discusses certification timelines, recommending that initial certifications occur within three months of adoption of this decision. FCE opposes this timeline, asserting that three months would not provide enough time for customer-generators or Utilities. FCE contends customer-generators will need to inspect and potentially retrofit a fuel cell system in preparation for testing. FCE submits Utilities will need time to develop internal processes to manage the compliance regime. FCE proposes extending the timeline to six months.³³²

The Commission finds this request reasonable as it will provide sufficient time for customers and utilities to prepare for the initial certification. Hence, the Commission concludes that a six-month initial certification timeline is needed. Accordingly, the Staff Proposal is revised to extend the initial certification implementation timeline from three to six months.

Several parties commented on the proposed compliance regime in which the Staff Proposal recommends an initial certification and annual recertification with accompanying documentation on the generator’s projected annual degradation rate. FCE proposes that, in lieu of utility inspections, the Commission should adopt the existing mechanisms used in the Self-Generation Incentive Program, which provides adequate compliance reporting without onsite activity or visual inspection.³³³ FCE contends implementation of these existing mechanisms would be the most efficient and least costly way to ensure

³³¹ Bloom Opening Comments to Proposed Decision at 13.

³³² FCE Opening Comments to April 6, 2021 Ruling at 8-9.

³³³ FCE Opening Comments to April 6, 2021 Ruling at 5.

compliance.³³⁴ Relatedly, Bloom Energy states that verifying efficiency and compliance with greenhouse gas emissions standards can be accomplished annually based on real-time data, which makes degradation assumptions unnecessary and potentially misleading.³³⁵ Sierra Club and PCF support requiring the use of onsite monitoring systems rather than relying on customer-generator self-certification, with PCF asserting such monitoring can determine actual efficiency.³³⁶ Supporting Bloom Energy and FCE's claims, PCF agrees that the use of real-time data are current and continuous monitoring tools the Commission should use but recommends that this data, as well as emissions calculations," should be attested to through sworn affidavits."³³⁷ In contrast, PG&E contends that having documents submitted and reviewed triennially on a common date would reduce tariff administrative costs.³³⁸

The Commission's intention is to provide an efficient framework that is successfully compliant with the statute. The Commission finds that relying on the Self-Generation Incentive Program's requirements, which order monthly reporting, provides that efficiency as compared to the daily reporting requested by PCF, which is excessive. Further, infrequent reporting as proposed by PG&E could lead to long periods of noncompliant greenhouse gas emissions. Hence, the Commission should adopt the use of the Self-Generation Incentive Program

³³⁴ FCE Opening Comments to April 6, 2021 Ruling at 5.

³³⁵ Bloom Energy Opening Comments to April 6, 2021 Ruling at 11.

³³⁶ Sierra Club Opening Comments to April 6, 2021 Ruling at 8 and PCF Opening Comments to April 6, 2021 Ruling at 6.

³³⁷ PCF Reply Comments to April 6, 2021 Ruling at 5.

³³⁸ PG&E Opening Comments to April 6, 2021 Ruling at 2.

handbook requirements in its implementation of the CARB Standards in the NEMFC tariff.

Accordingly, the Staff Proposal is revised to reflect that documentation must comply with applicable Self-Generation Incentive Program handbook requirements, including, but not limited to, the requirements that customer-generators contract with a Performance Data Provider and submit a Minimum Operating Efficiency Worksheet, a Directed Renewable Fuel Verification Form, supporting documentation, and monthly data. The Self-Generation Incentive Program requirement to contract with a Performance Data Provider for a minimum of five years is revised for the purposes of the NEMFC; such a contract will only be required for the duration the customer-generator takes service on the tariff. Utilities shall propose acceptable documentation requirements, such as forms and data submittal templates, to facilitate efficient processing in the required Tier 2 advice letter. Additionally, Utilities shall propose in this advice letter the manner (e.g., portal) and interval (e.g., monthly, or annually) of the submittal of monthly data. Utilities have noted that given the small number of customers on the NEMFC tariff, it is not reasonable to require monthly data collection and analyses to determine if a customer is in compliance with the CARB Standards and should remain eligible for the NEMFC.³³⁹ This decision clarifies that Utilities shall annually verify NEMFC recertification using this supporting documentation and data.³⁴⁰

In comments to the proposed decision, Utilities request additional clarification regarding the role of Utilities in the implementation of the CARB

³³⁹ Utilities Opening Comments to Proposed Decision at 5.

³⁴⁰ See Utilities Opening Comments to Proposed Decision at 6.

Standards. Utilities contend their role should be to collect and process certifications and not to “provide data analysis or collect other documentation to allow it to continuously monitor if a customer continues to qualify for NEMFC on an ongoing basis.”³⁴¹ Utilities are correct in their description that the Staff Proposal establishes that Utilities “will use the Minimum Operating Efficiency Worksheet, Directed Renewable Fuel Verification Form, supporting documentation, and monthly data to evaluate a generator’s technical ability to meet the NEMFC [greenhouse gas] emission standards.”³⁴² However, the Commission finds that the Utilities are the best equipped to perform this role. The Utilities are also correct that the Staff Proposal states that “the worksheet will also allow the utility to verify any adjustments made for [combined heat and power], renewable fuel utilization, and/or [carbon capture and underground storage]” and that “the utility will conduct an annual audit of the renewable fuel invoices for the life of any renewable fuel contract to verify renewable fuel consumption.”³⁴³ The Commission provides this clarification to ensure Utilities implement this decision correctly. Furthermore, the Commission disagrees with Utilities’ contention that “processing” is limited to taking in pass-fail certification. The Commission finds that processing can be, and in this case is, broader than simply collecting certifications. The Commission reiterates that the annual documentation fee should be calculated to include the costs of this processing.

³⁴¹ Utilities Opening Comments to Proposed Decision at 5.

³⁴² Utilities Opening Comments to Proposed Decision at 5.

³⁴³ See Utilities Opening Comments to Proposed Decision at 5 incorrectly citing the Proposed Decision at 136 when it should have cited the Staff Proposal at Appendix B-6

Sierra Club requests the Commission to require Utilities to publish the anonymized performance data submitted by the Performance Data Providers.³⁴⁴ Sierra Club asserts that “actual carbon dioxide performance data on fuel cells is necessary to help inform future fuel cell policy and understand the extent to which fuel cell efficiency degrades over time.”³⁴⁵ Utilities agree that performance data should be made public but not on a monthly basis. The Commission agrees that providing this monthly data to the public on an annual basis will be useful to inform future policy. No later than March 31 of each year, Utilities shall post this public anonymized monthly data from the previous year on the California Distributed Generation Statistics website, or another website as determined by the Energy Division, on an annual basis. The data shall be uniformly formatted and contain no confidential material.

The Staff Proposal provides guidance for accounting for Waste Heat Utilization. Citing a U.S. Department of Energy white paper on fuel cells, PCF highlights that fuel cell emissions can increase by 69 percent if waste heat is not used.³⁴⁶ PCF urges the Commission to ensure that the customer-generator certify the percentage of the waste heat that will be captured and used onsite for heating needs that would otherwise be performed by a commercial boiler or heat pump.

The Staff Proposal recommends certification for greenhouse gas emission rates but does not specifically include waste heat usage as part of the certification. The Commission agrees that waste heat usage, when present, is a critical component of the emission rate. Hence, the Commission should clarify that waste heat usage should be included when calculating the greenhouse gas

³⁴⁴ Sierra Club Opening Comments to Proposed Decision at 3.

³⁴⁵ Sierra Club Opening Comments to Proposed Decision at 3.

³⁴⁶ PCF Opening Comments to April 6, 2021 Ruling at 6.

emission rate. Accordingly, the Staff Proposal is revised to specifically require customer-generator certification of any waste heat usage provided in the calculation of the emission rate.

3.5.3.4. NEMFC Tariff: Verification and Penalties

This section discusses verification procedures for compliance with the NEMFC tariff requirements as well as penalties for noncompliance. The Staff Proposal includes a recommendation to permit Utilities to conduct field inspections to verify compliance with the CARB Standards. With respect to compliance verification, parties requested a citation and penalty procedure,³⁴⁷ a dispute resolution process,³⁴⁸ and the ability to cure deficiencies.³⁴⁹ Bloom contends that a process for determining eligibility and dispute resolution will avoid disruption of existing contracts, which would harm customers and energy reliability.³⁵⁰ PG&E maintains that an opportunity to cure would prove as effective as it would result in the use of less resources and less costs and the “onus to mitigate the situation [would lie] with the customer.”³⁵¹ PG&E also proposes that customers have an opportunity to cure deficiencies in a subsequent review but be permanently removed from access to the NEMFC tariff after failing two reviews.³⁵² PG&E highlights that there is a procedure already in place to address concerns regarding failure of mitigation efforts or a customers’ concern with the compliance process administration. SCE agrees that if a

³⁴⁷ PCF Opening Comments to April 6, 2021 Ruling at 3.

³⁴⁸ Bloom Opening Comments to April 6, 2021 Ruling at 7-8.

³⁴⁹ PG&E Reply Comments to April 6, 2021 Ruling at 2-3.

³⁵⁰ Bloom Opening Comments to April 6, 2021 Ruling at 7-8.

³⁵¹ PG&E Reply Comments to April 6, 2021 Ruling at 2-3.

³⁵² PG&E Opening Comments to April 6, 2021 Ruling at 2.

NEMFC resource fails to be recertified, its NEMFC tariff interconnection agreement should be terminated, and the associated utility should serve the resource under a new non-export agreement under Rule 21.³⁵³ Sierra Club opposes PG&E's proposal, especially if the Commission would limit review to every three years. Sierra Club contends this is inconsistent with Pub. Util. Code §2827.10 which requires compliance with the CARB Standards for eligibility.

The Commission agrees that PG&E's proposal for a lengthy deficiency cure period does not comply with the statute. Above, the Commission focused on efficiency in its adoption of monthly reporting. Once again, efficiency is important and a six-month window to cure deficiencies is the most efficient and least resource intensive process available. The Commission concludes it should adopt the use of a six-month window for customers to cure deficiencies, following the discovery of a lack of compliance. Accordingly, the Staff Proposal is revised to include this six-month window in which customers can come into compliance, after which the interconnection agreement will be terminated, and the project will be transitioned and served under a Rule 21 non-export agreement or any other agreement available to them. The Commission agrees with Bloom that there is no reasonable basis to restrict the transitioned customer to one alternative when other Commission-approved options exist.³⁵⁴ Utilities shall provide the previously collected compliance data for this transitioned customer to the utility personnel responsible for evaluating and approving interconnection to the alternate agreement.

³⁵³ SCE Opening Comments to April 6, 2021 Ruling at 2.

³⁵⁴ See Bloom Energy Opening Comments to Proposed Decision at 14.

Specific to the requirements for renewable fuel blending, discussed in Section 3.5.3.6 below, Sierra Club points to an absence in the Staff Proposal of a discussion of the consequences for noncompliance with accounting for the use of renewable fuels. The Commission agrees that there must be consequences for noncompliance. As such, the Commission finds that the practice of random no-warning spot-checks and 30-day warnings adopted by the Commission for the Self-Generation Incentive Program will apply to the renewable fuel blending requirements in the NEMFC tariff. If such compliance with renewable fuel blending requirements does not occur following the 30-day warning, and if recalculation of the fuel cell system's greenhouse gas emissions without the purported biofuel results in the system emitting more than the CARB Standards, automatic removal from the NEMFC tariff is warranted. The Staff Proposal is revised to reflect this penalty. Utilities shall conduct these monitoring activities. The Commission finds it reasonable to require customer-generators to fund these activities, which will eliminate any ratepayer burden. Utilities shall include the cost of these activities in the annual documentation fee.

3.5.3.5. NEMFC Tariff: Carbon Capture

Bloom Energy submits that fuel cells' non-combustion process makes carbon dioxide (CO₂), which has the potential for use in building materials, alternative fuels, chemicals, plastics, beverages, aquaculture, and other applications. Bloom Energy asserts that the Commission can enable these carbon reduction strategies through the NEMFC tariff and requests the Commission consider allowing for the capture of carbon to serve as one of the eligible pathways for compliance.³⁵⁵ Relatedly, Bloom Energy encourages the

³⁵⁵ Bloom Energy Opening Comments to April 6, 2021 Ruling at 6.

Commission allow multiple pathways to be used simultaneously to calculate the effective emission rate. Bloom asserts this would reduce emissions and serve multiple energy service purposes and proposes, as an example, utilizing waste heat and using renewable fuels.³⁵⁶

CARB regulates how to account for greenhouse gas emissions reductions from carbon capture and storage. However, CARB's Low Carbon Fuel Standard only allows sequestration underground.³⁵⁷ In D.22-05-025, the Commission agreed that a more expansive requirement should be adopted that includes "use" in addition to capture and storage. The decision allowed that "permissible uses of CO₂ that effectively prevent it from entering the atmosphere include, but are not limited to, carbon mineralization, geologic storage, methanation, biofuel production, and industrial or manufacturing applications."³⁵⁸ D.22-05-025 directed that the greenhouse gas emissions reductions and environmental benefits of carbon capture use and storage be added to the carbon intensity score to determine production facility life cycle carbon emissions and to create an incentive for these projects.³⁵⁹ The Commission directed Utilities to address in their Standard Biomethane Procurement Methodology how priority would be given to a facility that commits to capturing, storing, or utilizing CO₂ that would otherwise be vented into the atmosphere.³⁶⁰

³⁵⁶ Bloom Energy Opening Comments to April 6, 2021 Ruling at 12.

³⁵⁷ Senate Bill 905 Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program.

³⁵⁸ D.22-02-025 at 44.

³⁵⁹ D.22-02-025 at 44.

³⁶⁰ D.22-02-025 at Ordering Paragraph 2, which required submission of a Tier 2 advice letter within three months of a workshop to be held 45 days from the adoption of the decision.

Currently, the Commission has no standards on carbon capture, use, and storage. The Commission finds it necessary to add a new section to the Staff Proposal called Carbon Capture, Use, and Storage. This section will provide a disclaimer stating that if a fuel cell customer notifies a utility that it wants to perform carbon capture, use, and storage, then, within 12 months of such notice, the relevant utility shall submit a Tier 2 advice letter proposing rules in compliance with CARB's carbon capture and storage protocol.

With respect to Bloom Energy's request to allow multiple pathways to be used simultaneously to calculate the effective emission rate, the Staff Proposal does not address whether fuel cell facilities are permitted to simultaneously use multiple methods to calculate their effective emission rate. The Commission concludes that the simultaneous use of multiple methods is reasonable. For the sake of clarification, this decision amends the Staff Proposal to explicitly allow fuel cell facilities to calculate the effective emission rate by simultaneously using multiple methods.

3.5.3.6. NEMFC Tariff: Renewable Fuel Blending

The following revisions involve the subject of Renewable Fuel Blending. Sierra Club, TURN, and, to an extent, Cal Advocates express opposition to including renewable fuel blending as a compliance mechanism. The Commission addresses these concerns through revisions to the Staff Proposal, as discussed below. With these revisions, the Commission maintains that it is reasonable to account for the use of renewable fuels in meeting greenhouse gas emission standards.

Cal Advocates contends there are significant disparities in lifecycle greenhouse gas emissions attributable to a biogas supply's production and use based on factors including "variations in feedstock types, origin, raw material

production efficiencies, and transportation,” as indicated in CARB’s Low Carbon Fuel Standards Pathway Certified Carbon Intensities.³⁶¹ Sierra Club concurs, cautioning that “carbon intensity of biomethane varies considerably depending on its source, simply assuming zero emissions from directed biogas does not accurately reflect its carbon intensity.”³⁶² The Staff Proposal does not ask for the reduction from a baseline as it assumes the carbon intensity of a renewable fuel is zero. Sierra Club asserts that the Low Carbon Fuel Standards program can be a starting point for determining reductions for biogas sources, but it applies to displacement of transportation fuel. Because NEMFC projects displace less carbon-intensive grid energy, Sierra Club recommends the diminished benefits of using biomethane for a behind-the-meter end use must be taken into account.³⁶³

Sierra Club maintains that allowing customer-generators to use directed biogas contracts to meet greenhouse gas emissions eligibility requirements conflicts with AB 1637 and Commission policies, e.g., Building Initiative for Low-Emissions Development (BUILD) and Technology and Equipment for Clean Heating (TECH).³⁶⁴ Sierra Club states that AB 1637 requires that the eligible fuel cell customer-generator “uses technology the commission has determined will achieve reductions in emissions of greenhouse gases” and asserts that “biomethane is a not a technology” but rather a type of fuel and thus does not

³⁶¹ Cal Advocates Opening Comments to April 6, 2021 Ruling at 3 citing to CARB’s Low Carbon Fuel Standards Pathway Certified Carbon Intensities which can be found on the CARB website at: <https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/pathwaytable.htm>.

³⁶² Sierra Club Opening Comments to April 6, 2021 Ruling at 10.

³⁶³ Sierra Club Opening Comments to April 6, 2021 Ruling at 10.

³⁶⁴ Sierra Club Opening Comments to Proposed Decision at 4-5.

comply with AB 1637.³⁶⁵ Sierra Club contends the Commission concluded it was unreasonable to adopt the inclusion of renewable natural gas and hydrogen into the BUILD and TECH programs because these programs “are not focused on particularized infrastructure or fuels.”³⁶⁶

SoCalGas contends that Sierra Club misrepresents the intent of the BUILD and TECH stated conclusion and asserts that the conclusion relates to the programmatic and statutory boundaries, not to the emissions of the fuel or gas system. Further, SoCalGas notes that BUILD and TECH “are focused on advancing the State’s market for low-emission space and water heating equipment as opposed to gas pipelines or clean fuels delivered through the system.”³⁶⁷ SoCalGas also contends that Sierra Club’s argument separating the technology (fuel cells) from the fuel is misleading. SoCalGas asserts that the fuel feedstock is as important as the efficiency of the fuel cell technology when calculating emissions.³⁶⁸ The Commission agrees that a technology’s effects are linked with its fuel. For example, California policy promotes electric vehicles because electricity causes less pollution than fossil fuels used by internal combustion engine vehicles. Furthermore, the SGIP program allows fuel cells if they use renewable fuel. Because the Commission has found it reasonable to use other SGIP requirements for NEMFC requirements, it is also reasonable for the Commission to align with SGIP here.

As described in the Staff Proposal, the Commission adopted a Voluntary Renewable Natural Gas Tariff pilot in D.20-12-022 to allow residential, and small

³⁶⁵ Sierra Club Opening Comments to Proposed Decision at 4-5.

³⁶⁶ Sierra Club Opening Comments to Proposed Decision at 5.

³⁶⁷ SoCal Gas Reply Comments to Proposed Decision at 2.

³⁶⁸ SoCal Gas Reply Comments to Proposed Decision at 2-3.

commercial and industrial customers to purchase renewable natural gas³⁶⁹ that would become part of their regulated fossil-based natural gas services. In D.20-12-022, the Commission found that developing a modified methodology based on the model used for CARB's Low Carbon Fuel Standards program was a reasonable approach to calculate carbon intensity of eligible renewable natural gas resources.³⁷⁰ The model is called the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model (GREET) pathway.³⁷¹ In D.20-12-022, the Commission agreed that Low Carbon Fuel Standards carbon intensities show the greenhouse gas emissions reduction from a gasoline or diesel transportation fuel baseline and directed the creation of a revised model where the carbon intensities calculation methodology is "focused on fossil natural gas for specific renewable natural gas sources."³⁷² That decision also required the methodology be modified to include the energy inputs required for upgrading biogas for pipeline injection.³⁷³ The Commission directed Utilities to hold a workshop to discuss both the criteria to be used in a modified GREET model and who should develop the model.³⁷⁴

³⁶⁹ D.20-12-022 describes renewable natural gas, which is also known as biomethane, as a biogas emitted from agricultural and waste products and upgraded to a quality similar to fossil natural gas. D.20-12-022 at 2.

³⁷⁰ D.20-12-022 at 26.

³⁷¹ The CA-GREET model is a California-specific version of Argonne National Laboratory's GREET life cycle model which is used to calculate GHG emissions under the LCFS. *See*: <https://ww2.arb.ca.gov/resources/documents/lcfs-life-cycle-analysis-models-anddocumentation>.

³⁷² D.20-12-022 at 26-27.

³⁷³ D.20-12-022 at 26-27.

³⁷⁴ D.20-12-022 at 27.

Subsequently, the Commission adopted D.22-02-025, which implemented the SB 1440 Biomethane Procurement Program. In D.22-02-025, the Commission adopted use of the modified GREET model from D.20-12-022 to determine carbon intensity scores.³⁷⁵ In the interim, the Commission directed Utilities to use a preliminary cost-effectiveness test that estimates the short-lived climate pollutant reduction and life cycle carbon emissions until the modified GREET model was completed and carbon intensity scores could be established.³⁷⁶

To address parties' concerns, the Staff Proposal should be revised to include language providing additional instructions to Utilities on how to account for reduced emissions from biomethane using the preliminary method adopted in D.22-02-025. Utilities caution that the submission of an advice letter should not occur every time the reduced emissions calculation changes.³⁷⁷ Accordingly, the Commission clarifies that within 90 days after a modified GREET model is first approved, pursuant to D.22-02-025, Utilities shall submit advice letters to revise the instructions in NEMFC tariffs to reference the modified model.

The Staff Proposal presents distinct requirements for both onsite renewable fuel and directed renewable fuel. For directed renewable fuel, the Staff Proposal recommended that the renewable fuel be required to be delivered to the Generation Facility through a dedicated pipeline or injected into a common carrier pipeline system to align with Pub. Util. Code §651(b)(3)(B).

Sierra Club argues that the proposal fails to meaningfully address or remedy past verification and accounting issues where directed biogas has been allowed to participate. Sierra Club references D.20-01-012 that discusses "a

³⁷⁵ D.22-02-025 at 36.

³⁷⁶ D.22-02-025 at 36.

³⁷⁷ Utilities Opening Comments to Proposed Decision at 6.

concerning level of missing or inaccurate records that rendered it infeasible to determine the compliance status of ‘numerous’ onsite and directed biogas projects.”³⁷⁸ Cal Advocates shares Sierra Club’s concern about missing or inaccurate records, alleging that issues related to noncompliant renewable generation projects have remained unresolved for years.³⁷⁹

Sierra Club objects to a utility review of invoices with no clear criteria or consequence for non-compliance. Further, Sierra Club submits the audit does not appear to require inspection of the project’s fuel sources in contrast to CARB’s Low Carbon Fuel Standards for biomethane. Sierra Club contends that if the Commission does allow directed biogas contracts to enable compliance with greenhouse gas emissions eligibility standards, requirements should be no less stringent than those adopted in the Self-Generation Incentive Program proceeding.³⁸⁰ Sierra Club references D.21-06-005, the *Proposed Decision Revising Self-Generation Incentive Program Renewable Generation Technology Program Requirements and Other Matters*, which institutes periodic no-warning spot checks of fuel sources and retention of environmental attributes by the host generator and review of commits during fuel source verification spot checks.³⁸¹ In support of onsite inspections, Cal Advocates points to CARB’s rigorous verification protocols for its Low Carbon Fuel Standards, which Cal Advocates submits includes annual site visits to biofuel production locations by independent third-

³⁷⁸ Sierra Club Opening Comments to April 6, 2021 Ruling at 4 citing D.20-01-012 Self-Generation Incentive Program Revisions Pursuant to Senate Bill 700 and Other Program Changes, at 66-67.

³⁷⁹ Cal Advocates Opening Comments to April 6, 2021 Ruling at 6 citing D.20-01-021 at 67.

³⁸⁰ Sierra Club Opening Comments to April 6, 2021 Ruling at 5.

³⁸¹ Sierra Club Opening Comments to April 6, 2021 Ruling at 5 citing to what is now D.21-06-005 at 83-84.

party verifiers.³⁸² Cal Advocates and Sierra Club underscore that CARB has classified biomethane as having a high potential for misreporting.³⁸³

The Commission has acknowledged the presence of verification issues in the Self-Generation Incentive Program. In D.20-01-021, the Commission noted that requirements for verification of source fuels had not kept pace with the Low Carbon Fuel Standard or Renewables Portfolio Standards.³⁸⁴ In D.21-06-005, the Commission updated the Self-Generation Incentive Program handbook to, among other things, limit eligible directed renewable fuels to those produced within California and strengthen renewable fuel documentation, verification, auditing, and enforcement requirements.³⁸⁵ The Commission recognizes these requirements are more stringent than the Staff Proposal requiring compliance with Pub. Util. Code §651(b)(3)(B). The Commission should align the requirements in the Staff Proposal with those of the Self-Generation Incentive Program. It is the Commission's intention that these more stringent requirements will improve future compliance. The Commission finds it reasonable that customer-generators fund these requirements, which will eliminate any ratepayer burden. Accordingly, the Staff Proposal is revised to align the requirements for directed biogas eligibility with those of the Self-Generation Incentive Program. Some of the Self-Generation Incentive Program requirements

³⁸² Cal Advocates Opening Comments to April 6, 2021 Ruling at 4 citing California Code Regulations § 95501(b)(3).

³⁸³ Cal Advocates Opening Comments to Fe April 6, 2021 February Ruling at 4 citing *California Air Resources Board, Biomass-Derived Fuels Guidance for California's Mandatory [Greenhouse Gas] Reporting Program* at 7 (January 11, 2019), <https://ww3.arb.ca.gov/cc/reporting/ghgrep/guidance/biomass.pdf>.

³⁸⁴ D.20-01-021 at 62 and 69.

³⁸⁵ D.21-06-005 at 2.

are also applicable to general characteristics of renewable fuels, including those produced onsite. A renewable fuel's eligibility for use to diminish emissions counted toward the CARB Standards should not depend on whether that fuel is produced onsite. Hence, for consistent treatment of renewable fuels within the NEMFC tariff, the Commission should require the compliance of renewable fuels produced onsite or delivered through a dedicated pipeline with any applicable requirements of Pub. Util. Code §651(b)(3)(B) or the Self-Generation Incentive Program for directed biofuel. The Staff Proposal is revised to reflect this.

Also related to directed biogas, the Staff Proposal recommends requiring documentation from the source showing the amount moved into the pipeline and received. Sierra Club questions that the Staff Proposal does not require demonstration that environmental attributes of procured biogas were both obtained and not used elsewhere. While "directed biogas contracting can require the seller to provide all environmental attributes to the buyer - with the buyer retiring those attributes," Sierra Club asserts "there is no assurance attributes will not be double counted because there is no nationwide tracking."³⁸⁶

The Commission acknowledges the adoption of a tracking system adopted in D.22-02-025. In that decision, the Commission directed Utilities to require "biomethane producers to track volumetric injections into pipelines through the Midwest Renewable Energy Tracking System (M-RETS)," a proprietary web-based platform that tracks Renewable Energy Certificates and Renewable Thermal Certificates, "or another platform identified in the Standard Biomethane Procurement Methodology workshop."³⁸⁷ With respect to the use of M-RETS, in

³⁸⁶ Sierra Club Opening Comments to April 6, 2021 Ruling at 4-5.

³⁸⁷ D.22-02-025 at 50.

D.20-12-022, Wild Tree asserts that because “California does not participate in this system for compliance markets” California will not use M-RETS “to determine compliance nor verification for the voluntary [Renewable Natural Gas] Tariff program.”³⁸⁸ The Commission finds that use of a contractual obligation may provide the best assurance of compliance until the M-RETS or any tracking system is broadly used. Hence, the Commission concludes it should require documentation of contractual obligation. Accordingly, the Staff Proposal is revised to require documentation of the seller’s contractual obligation to provide all environmental attributes to the buyer.

The Staff Proposal recommends an alternative compliance demonstration option through the voluntary renewable natural gas tariff pilot, which allows the customer-generator to offset fossil natural gas consumption with renewable natural gas through a special billing arrangement.

PCF recommends that all fuel cell systems with renewable fuel be credited at the average percentage of renewable fuel in the utility pipelines.³⁸⁹ Bloom and SoCalGas contend that, since the overarching goal is to reduce emissions, it is irrelevant whether the customer procures gas from a third party or pays a premium to a utility for the gas.³⁹⁰ FCE recommends the Commission require gas utilities to publish the carbon intensity or the renewable blend ratio of their pipeline gas in the NEMFC tariff so customers can calculate the amount of additional renewable natural gas they need.³⁹¹ PG&E claims that a fuel cell’s

³⁸⁸ D.20-12-022 at 27.

³⁸⁹ PCF Opening Comments to April 6, 2021 Ruling at 9.

³⁹⁰ Bloom Opening Comments to April 6, 2021 Ruling at 15 and SoCalGas Reply Comments to April 6, 2021 Ruling at 1.

³⁹¹ FCE Opening Comments to April 6, 2021 Ruling at 13.

emissions are calculated based on the consumption of fossil natural gas. Therefore, PG&E asserts, the customer-generator can offset the equivalent amount of natural gas with the carbon intensity of the renewable natural gas.³⁹² PG&E adds that a simple percentage reduction for emissions attributed to the fuel cell would also be straightforward to implement.³⁹³ However, SoCalGas submits that because a renewable gas procurement goal is being explored in the Biomethane Rulemaking, it will be necessary to adjust the pipeline's carbon content to allow for renewable gas carbon intensity.³⁹⁴

The Commission should ensure that the amount of renewable natural gas the fuel cells are using is accurately taken into account. Such accuracy requires utility-supplied renewable natural gas to be included in the calculation of the greenhouse gas emissions of fuel cell systems participating in the NEMFC tariff. However, this decision clarifies that both D.20-12-022 and D.22-02-025 determined that the rights to the renewable natural gas environmental attributes remain with the utility. This decision also finds that the renewable natural gas content amount should be easy for utilities to verify since it should already be contained in their records. Accordingly, the Staff Report is amended to confirm that utility-supplied renewable natural gas is eligible for emissions reduction, if compliant with Pub. Util. Code §651(b)(3)(B) and Self-Generation Incentive Program requirements for directed biofuel, but the environmental attributes remain with the utility. Further, the Staff Report is also amended to reflect that only bundled service customers are eligible to demonstrate compliance through

³⁹² PG&E Opening Comments to April 6, 2021 Ruling at 6.

³⁹³ PG&E Opening Comments to April 6, 2021 Ruling at 6.

³⁹⁴ SoCalGas Opening Comments to April 6, 2021 Ruling at 9-10.

use of eligible utility-supplied renewable natural gas and/or through participation in a voluntary renewable natural gas tariff program.

Finally, on August 29, 2022, SoCalGas submitted Advice Letter 6025, proposing the final elements of the Voluntary Renewable Natural Gas Tariff pilot program for nonresidential customers. More recently, SoCalGas filed supplemental Advice Letter 6025-G-A to replace the August 2022 advice letter.³⁹⁵ No other gas utility is currently proposing to create such a program. The modified Staff Proposal reflects these recent actions.

In comments to the proposed decision, Sierra Club asserts it is legal error to allow bundled service customers to demonstrate compliance through participation in a voluntary renewable natural gas tariff program. Sierra Club argues that the Commission adopted the SoCalGas' Voluntary Renewable Natural Gas Tariff pilot with the express purpose of avoiding impacts to non-participants.³⁹⁶ Sierra Club quotes from D.20-12-022: "Even though the voluntary RNG Tariff program does not have a statutory requirement of non-participant indifference similar to the electric utilities' GTSR program, from the fairness to non-participant perspective, the Commission should consider a consistent policy for all voluntary program cost recovery." Sierra Club neglects to note that in the next paragraph, the Commission determines "that there are sufficient reasons to deviate from this ratemaking principle."³⁹⁷ The Commission is not persuaded by Sierra Club's argument and declines to revise the decision to allow bundled

³⁹⁵ This information was conveyed by Sierra Club. See Sierra Club Opening Comments to Proposed Decision at 4.

³⁹⁶ Sierra Club Opening Comments to Proposed Decision at 4 citing D.20-12-022 at 29.

³⁹⁷ D.22-12-011 at 29. See also SoCalGas Reply Comments to Proposed Decision at 4.

service customers to demonstrate compliance through participation in a voluntary renewable natural gas tariff program.

Sierra Club also asserts legal error because it contends the Supplemental Advice Letter filed by SoCalGas “intends to revise the program to serve municipalities as a means of compliance with SB 1382 requirements with reporting to CalRecycle.”³⁹⁸ Sierra Club is incorrect, the referenced advice letter preserves options for non-residential customers in addition to municipalities. The advice letter states: “SoCalGas proposes the [Renewable Natural Gas] Tariff program focuses on...primarily core C&I³⁹⁹ customers and local governments...”⁴⁰⁰ The advice letter also states: “...SoCalGas proposes to redesign the RNG tariff and target business customers (commercial, industrial and the local governments) looking to either comply with SB 1382 procurement mandates or meet their own environmental and sustainability goals.”⁴⁰¹

3.5.3.7. NEMFC Tariff: Related Proposals

This decision turns to a discussion of party comments that address the need to update the record on the NEMFC. Because nearly two years had passed since the issuance of the April 6, 2021 Ruling asking for comments on the Staff

³⁹⁸ Sierra Club Opening Comments to Proposed Decision at 4 citing SoCalGas AL 6025-G-A, Supplemental – SoCalGas’ Request to Make Modifications to the Adopted Voluntary Renewable Natural Gas Tariff Program Pursuant to Decision 20-12-022, at 1 (July 21, 2023), https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/submittals/GAS_6025-G-A.pdf

³⁹⁹ C&I refers to Commercial and Industrial.

⁴⁰⁰ SoCalGas AL 6025-G-A, Supplemental – SoCalGas’ Request to Make Modifications to the Adopted Voluntary Renewable Natural Gas Tariff Program Pursuant to Decision 20-12-022, at 5 (July 21, 2023), https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/submittals/GAS_6025-G-A.pdf

⁴⁰¹ SoCalGas AL 6025-G-A, Supplemental – SoCalGas’ Request to Make Modifications to the Adopted Voluntary Renewable Natural Gas Tariff Program Pursuant to Decision 20-12-022, at 6 (July 21, 2023), https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/submittals/GAS_6025-G-A.pdf

Proposal, the Administrative Law Judge issued a ruling that asked parties to comment on whether there were recent: (1) Commission decisions, resolutions, or dispositions or (2) other legal, regulatory, or technical developments the Commission should consider in determining whether to adopt the Staff Proposal. The Commission finds that, based on party comments, there are no other developments to consider with respect to consideration of the Staff Proposal. However, the Commission takes this opportunity to briefly address requests from parties in response to two questions that are not related to the Staff Proposal.

First, Bloom Energy asserts that the lapse of time has rendered the CARB Standards “error-ridden” and “inconsistent with Pub. Util. Code §2827.10(b)(2) and with California’s policy objectives.”⁴⁰² Bloom also maintains that reliance on CARB Standards may subject fuel cell systems to unrealistic standards and result in the Commission replacing the clean resources with higher-emitting resources.⁴⁰³ Bloom Energy contends that AB 1637 provides the Commission with the choice to determine whether or not to use CARB Standards as part of its statutory obligations based on Pub. Util. Code §2827.10(a)(3)(A)(iii) and 2827.10(b).⁴⁰⁴ Moreover, Bloom Energy recommends the Commission: (1) request CARB to reassess its greenhouse gas emissions standard calculation, (2) replace the current tariff with new tariffs; and (3) consistent with D.21-07-011, consider an interim requirement that fuel cell systems must have the ability to consume renewable fuels.⁴⁰⁵ Bloom discusses this assertion in response to the question

⁴⁰² Bloom Energy Opening Comments to February 28 Ruling at 2.

⁴⁰³ Bloom Energy Opening Comments to February 28 Ruling at 3.

⁴⁰⁴ Bloom Energy Opening Comments to February 28, 2023 Ruling at 1.

⁴⁰⁵ Bloom Energy Opening Comments to February 28 Ruling at 3.

regarding other legal, regulatory, or technical developments that impact this matter.⁴⁰⁶

The Commission disagrees with Bloom Energy's interpretation of the statute and declines to grant this request. Pursuant to Pub. Util. Code §2827.10, an eligible fuel cell customer-generator is required to use technology the Commission has determined will achieve reductions in emissions of greenhouse gas emissions pursuant to subdivision (b), which states that CARB, in consultation with the Energy Commission, shall establish a schedule of annual greenhouse gas emissions reductions standards for a fuel cell electrical generation resource. CARB Standards are a requirement. In Pub. Util. Code §2827.10, the Commission has a limited role in developing fuel cell technology standards, which does not include determining the greenhouse gas emissions standards. Furthermore, the appropriate venue to relitigate CARB Standards is at CARB, not this proceeding. Accordingly, the Commission declines to grant Bloom Energy's proposal to request CARB to reassess its greenhouse gas emissions standard calculations.

In comments to the proposed decision, Bloom Energy presents a related argument, that while the statute requires CARB to establish a greenhouse gas emissions standard, nothing requires the Commission to approve a tariff for Utilities that uses the CARB Standards, nor does the statute exempt the Commission from ensuring adoption of any standard is just, reasonable, and sufficiently supported by the record.⁴⁰⁷ The Commission disagrees. As stated

⁴⁰⁶ Bloom Energy Opening Comments to February 28 Ruling at 9-10, and 12-20.

⁴⁰⁷ Bloom Energy Opening Comments to Proposed Decision at 10.

above, Pub. Util. Code §2827.10 requires the implementation of the CARB Standards.

Second, Bloom Energy and FCE request the Commission create a new fuel cell tariff or, alternatively, a tariff for distributed energy resources. FCE also urges the Commission to take immediate, concrete actions to determine how to encourage, enable, and expedite the development and deployment of fuel cells to address the need for clean, reliable, and resilient distributed resources.

Pub. Util. Code §2827.10 does not allow the Commission to extend the tariff. In establishing the requirements for fuel cell participation in net energy metering, the Legislature expressly sunset the tariff at the end of 2023. This sunset language provides no alternative action for the Commission, only the legislature, *i.e.*, the tariff expires “unless a later enacted statute that is chaptered on or before December 31, 2023 extends this eligibility commencement date.” Accordingly, the Commission denies the parties’ request to address questions regarding a new tariff for fuel cells.

Bloom Energy and FCE request a new tariff for fuel cells or, alternatively, a distributed energy resources tariff. The net billing tariff is available to all distributed energy resources. .

With respect to the request for a new tariff for fuel cells, this decision notes that the Commission originally developed the NEMFC tariff in accordance with statutory directives, which are set to expire. The Guiding Principles for the revisit of NEM 2.0, as established in D.21-02-007, specified that “a successor to the net energy metering tariff should fairly consider all technologies that meet the definition of renewable electrical generation facility in Pub. Util. Code §2827.1.” The Commission finds that creating a technology-specific tariff does not align with D.21-02-007. Finally, pursuant to Pub. Util. Code §2827.1, fuel cells using

renewable fuels are eligible customer-generators and therefore already qualify for the net billing tariff. Utilities also point out that “if a fuel cell does not qualify for the [net billing tariff] or other such tariffs, it can still be utilized to offset onsite load at the retail rate by operating on an applicable Rule 21 tariff; however, it should not receive incentives intended for renewable resources.”⁴⁰⁸

Bloom Energy and CHBC request the Commission consider an action similar to that adopted in D.21-07-011, where the Commission suspended the capacity reservation charge for technologies meeting certain standards.⁴⁰⁹ Bloom Energy contends in that proceeding the Commission determined greenhouse gas emissions could be reduced without the CARB Standards.⁴¹⁰ Bloom Energy requests the Commission to adopt an interim NEMFC tariff applicable to fuel cells that: (1) have the capability to operate using only renewable fuels and (2) commit to using only renewable fuels, as practicable, by December 31, 2030.⁴¹¹ The Commission declines to grant this request. NEMFC tariffs must comply with Pub. Util. Code §2827.1, which clearly states that a NEMFC resource “uses technology the Commission has determined will achieve reductions in emissions of greenhouse gases” pursuant to CARB’s “schedule of annual greenhouse gas emissions reduction standards.” Granting Bloom Energy’s request would conflict with the statute.

The Commission recognizes that following the expiration of the current NEMFC tariff, new customers with a fuel cell that does not use renewable fuels continue to have the ability to offer energy and capacity to a Utility and pursuant

⁴⁰⁸ Utilities Reply Comments on Proposed Decision at 4.

⁴⁰⁹ Bloom Energy Opening Comments to February 28 Ruling at 7.

⁴¹⁰ Bloom Energy Opening Comments to February 28 Ruling at 7-8.

⁴¹¹ Bloom Energy Opening Comments to February 28 Ruling at 20.

to the Public Utility Regulatory Policies Act of 1978 (PURPA), must be appropriately compensated. Every qualifying facility under federal law can avail itself of the Commission's PURPA standard offer contract.⁴¹² As previously directed in D.20-05-006, Utilities shall compensate the affected customer-generator as prescribed by PURPA, including providing compensation to fuel cells that are qualifying facilities of 20 MW or less.⁴¹³ Hence, no further action is required in this proceeding to address fuel cells that do not use renewable fuels. Bloom Energy argues that "for those fuel cells that meet the federal standard to offer energy and capacity to a utility pursuant to PURPA, the conflict between federal and state law on the resources that qualify for the standard offer contract must first be resolved and appropriate changes in that contract must be made."⁴¹⁴ However, Bloom Energy fails to identify any specific conflicts between the standard offer contract and the federal law. Furthermore, to the extent any such conflicts do exist, this proceeding is not the appropriate venue to address them.

FCE requests the Commission to facilitate a workshop to discuss post 2023 regulatory alternatives to the NEMFC tariff. The Commission should not grant this request for the same reasons as above. In particular, the Legislature has defined the requirements for and the expiration of the NEMFC, as well as the resources qualifying for the net billing tariff, which is applicable to distributed energy resources including fuel cells using renewable fuels. Additionally, fuel cell resources that do not use renewable fuels also have alternate pathways available to them.

⁴¹² Adopted in D.20-05-006.

⁴¹³ See D.20-05-006 at Ordering Paragraph 11.

⁴¹⁴ Bloom Energy Opening Comments to Proposed Decision at 6 citing FERC Order 874.

3.6. Implementation of Pub. Util. Code §769.2

AB 2143 (Carrillo) established Pub. Util. Code §769.2 requiring that, beginning on January 1, 2024, large customer-sited renewable electrical generation facilities, and any associated battery storage, that enrolls in tariffs designed for these projects (*e.g.*, net energy metering or net billing tariffs) shall provide, at a minimum, prevailing wages to all construction workers and apprentices, unless the project is: (1) a residential renewable electrical generation facility that is eligible to receive service pursuant to the standard contract or tariff developed pursuant to Pub. Util. Code §2827.1 and has a maximum generating capacity of 15 kilowatts or less of electricity; (2) a residential renewable electrical generation facility that is eligible to receive service pursuant to the standard contract or tariff developed pursuant to Pub. Util. Code §2827.1 and that is installed on a single-family home; (3) a project that is a public work, as defined in Section 1720 of the Labor Code, and that is subject to Article 2 (commencing with Section 1770) of Chapter 1 of Part 7 of Division 2 of the Labor Code; or (4) a renewable electrical generation facility that serves only a modular home, a modular home community, or multiunit housing that has two or fewer stories.

The Commission is explicitly assigned two responsibilities in this statute. The Commission is designated as the recipient of the certified payroll records for projects subject to this statute, which are required to be maintained, verified, and then submitted biannually to the Commission, on July 1st and December 31st of each year by the contractor of eligible projects. The Commission is also required to retain these records as public records for five years.

Enforcement of the wage requirements is through one of three mechanisms: (1) by the Labor Commissioner of the Department of Industrial

Relations (Department) through issuance of a civil wage and penalty assessment; (2) by an underpaid construction worker or apprentice through an administrative complaint or civil action; and (3) by a joint labor-management committee through a civil action. The statute states that if a willful wage violation has been enforced against a contractor of an eligible and interconnected project, then the Generation Facility will lose service to the standard contract or tariff offered pursuant to Pub. Util. Code §2827 or §2827.1.

In the April 3 Ruling, parties were asked to respond to questions regarding the implementation of this statute. This decision presents a discussion of the responses to each of the questions, followed by the details of the implementation plan.

3.6.1. Timeline Commencement

Pub. Util. Code §769.2 requires contractors of the specified customer-sited renewable generation facilities to provide prevailing wages. Parties were asked to propose a process and timeline for ensuring contractors are complying. Responses focused on the timeline commencement and proposed two options: either the contract start date or the interconnection application date.

Utilities maintain that until an interconnection application is submitted to a utility, no information is known about the project or the contractor.⁴¹⁵ Hence, Utilities contend the interconnection application date should be the starting point of ensuring compliance. Utilities explain that once an application is received, a utility begins the interconnection process at which time it confirms a contractor's license. Utilities suggest they could determine, at receipt of the interconnection application, whether the contractor is on a created list of prohibited contractors

⁴¹⁵ Utilities Opening Comments to April 3 Ruling at 9.

(those who have previously violated Pub. Util. Code §769.2.) CALSSA also supports the use of the interconnection application date as the starting point for determining compliance. CALSSA contends the interconnection application will provide the information needed to determine if a project is required to comply with Pub. Util. Code §769.2, and using the application submission date as the starting point will “avoid the challenges and dangers of applying the statute retroactively.”⁴¹⁶ Also providing support are PowerFlex, who submits the starting point will save time and cost and reduce ambiguity, and GRID, who agrees with Utilities that this is the earliest touchpoint contractors have with utilities.⁴¹⁷ CUE contends that if construction work begins prior to submitting the application, the contractor should be required to attest that work performed after December 31, 2023 complies with the statute.⁴¹⁸

Taking a different approach, SEIA argues that the statute does not require contractors to report contract start dates and that neither the Commission nor the Utilities have a role in ensuring the contractor has properly classified the project as falling under the statute’s prevailing wage requirements.⁴¹⁹

The Commission disagrees with SEIA regarding the role of the Commission and Utilities. The Commission has regulatory jurisdiction over Utilities as well as authority over the safe and reliable interconnection of customer-generators, and Utilities oversee interconnection application requests by customers to ensure safe and reliable interconnection. Further, the

⁴¹⁶ CALSSA Opening Comments to April 3 Ruling at 2-3.

⁴¹⁷ Grid Opening Comments to April 3 Ruling at 4 and PowerFlex Opening Comments to April 3 Ruling at 2.

⁴¹⁸ CUE Opening Comments to April 3 Ruling at 1-2.

⁴¹⁹ SEIA Opening Comments to April 3 Ruling at 2-3.

Commission has the responsibility to ensure that customers are protected. Because customers will be negatively affected by contractor noncompliance, the Commission finds that it has a role in contractors' compliance with Pub. Util. Code §769.2 – and should, therefore, know whether the statute applies to a given Generation Facility. Because the interconnection application submission is the first point of contact between the customer and Utility, the Commission finds that this is the appropriate starting point to determine applicability of the statute. Accordingly, the Commission should include a step during the interconnection application process to determine whether a Generation Facility must comply with Pub. Util. Code §769.2.

To implement this process, changes must be made to the interconnection application to confirm eligibility. As suggested by CALSSA, the Commission directs Utilities to create a Pub. Util. Code §769.2 Checklist to provide for an assessment of whether the requirements are applicable to a project.⁴²⁰ Utilities shall conduct a review of this checklist to confirm a project's applicability. Additional details on this checklist are provided in Section 3.6.6. below.

Pub. Util. Code §769.2 is effective January 1, 2024. Noting that some projects may already be in process as of the effective date, parties were asked to comment on the treatment of such projects and how to document this.

CALSSA, GRID, PowerFlex, SEIA, SBUA, and Utilities agree that the legislation should apply prospectively and that contracts signed before the effective date could not be reasonably expected to adjust wages to meet the new requirements. Utilities submit that for NEM 1.0 and NEM 2.0 tariff customers, this provision would apply if an interconnection application is submitted “to

⁴²⁰ CALSSA Opening Comments to April 3 Ruling at 3.

upgrade the existing system to increase its size or to pair an energy storage device.”⁴²¹ Pointing to a June 27, 2022 bill analysis, SEIA contends the language is clear and unambiguous that this bill “only applies to projects beginning after December 31, 2023.”⁴²² SEIA offers a second bill analysis that SEIA contends indicates the statute is forward looking, not intended to go back and address contracts executed prior to the statute going into effect.⁴²³ In reply comments, SEIA highlights that both the U.S. Department of Labor and the Department follow the policy that wage rates incorporated into a contract at time of award are those that must be paid for duration of the contract.⁴²⁴ Only CUE disagrees with this position asserting that any ongoing construction projects should transition immediately to the new wage rules regardless of their contract start dates or application start dates. CUE argues that “fair notice occurred the day AB 2143 was signed into law by the Governor, September 29, 2022.”⁴²⁵

The Commission agrees that the statute is clear and concludes that Pub. Util. Code §769.2 is only applicable to projects with an interconnection application date (as determined above) after December 31, 2023. While the Commission agrees that fair notice was provided to contractors upon enactment, that notice was based on language stating the statute would be applicable to all

⁴²¹ Utilities Opening Comments to April 3 Ruling at 13-14.

⁴²² SEIA Opening Comments to April 3 Ruling at 4 citing Senate on Labor, Public Employment and Retirement Bill Analysis (June 27, 2022) available at https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=202120220AB2143.

⁴²³ SEIA Opening Comments to April 3 Ruling at 4 citing Office of Senate Floor Analysis AB 2143 (August 26, 2022), p. 3 available at https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=202120220AB2143.

⁴²⁴ SEIA Reply Comments to April 3 Ruling at 2-3 citing CALSSA Opening Comments to April 3 Ruling at 4.

⁴²⁵ CUE Reply Comments to April 3 Ruling at 6.

eligible projects beginning after December 31, 2023. While this means the statute is generally not applicable to NEM 1.0 and NEM 2.0 tariffs, the Commission agrees with Utilities, finding that any customer-generator submitting an interconnection application for an upgrade to increase the size of the system or to pair an energy storage device, including those taking service under the NEM 1.0 and NEM 2.0 tariffs, after December 31, 2023 will be considered a new project required to comply with Pub. Util. Code §769.2.

3.6.2. Customer Education

The Commission asked parties whether Utilities and Community Choice Aggregators (CCAs) should play any role in educating and informing contractors and customers about eligibility and wage requirements and noncompliance penalties of Pub. Util. Code §769.2. Parties have different opinions on this matter.

SEIA and Utilities assert that the Department and CSLB are responsible for contractor education.⁴²⁶ Utilities oppose requirements to provide contractor or customer education “beyond advising customers of their rights and obligations, the ramifications of their economic decisions, and the requirements of this [statute].”⁴²⁷ SEIA concurs with Utilities stating that Utilities and CCAs should use their existing methods for informing customers of tariff changes related to the new statute, but suggests creation of a Solar Protection Guide for those affected customers.⁴²⁸ Utilities agree that the Solar Protection Guide should advise consumers of the impact of Pub. Util. Code §769.2.

⁴²⁶ SEIA Opening Comments to April 3 Ruling at 5 and Utilities Opening Comments to April 3 Ruling at 12-13. *See also* Utilities Reply Comments to April 3 Ruling at 2.

⁴²⁷ Utilities Opening Comments to April 3 Ruling at 12.

⁴²⁸ SEIA Opening Comments to April 3 Ruling at 5.

CALSSA proposes an alternative method, to include language regarding Pub. Util. Code §769.2 in the interconnection application and interconnection agreement. CALSSA contends this will ensure contractors and customers have proper notice of the requirements. CALSSA opposes a standalone guide or bill inserts, asserting these are neither effective nor cost effective.⁴²⁹

GRID maintains both Utilities and CCAs have a crucial role and responsibility to provide education to contractors and impacted customers regarding this statute. GRID recommends the Commission provide technical assistance and consider hiring a prevailing wage consultant.⁴³⁰

The Commission agrees that the Labor Commission and the CLSB should be responsible for educating contractors. As discussed in Section 3.6.3. below, the affected tariffs will be updated by Utilities to provide a clear understanding of how Pub. Util. Code §769.2 changes the tariffs, which will provide transparency to contractors. However, the Commission and the Utilities have a responsibility to ensure that customers are aware of the potential impacts of Pub. Util. Code §769.2.

As Utilities point out, the Commission currently has a consumer guide for residential solar customers, as discussed in Section 3.3 of this decision. Residential customers are required to acknowledge receipt of the guide as part of their interconnection application. The Commission concludes that a similar process should be conducted where a contractor provides disclosure of the requirements of Pub. Util. Code §769.2 to the eligible customer, as well as the impacts of a willful violation of the wage requirements. Keeping this information

⁴²⁹ CALSSA Opening Comments to April 3 Ruling at 6.

⁴³⁰ GRID Opening Comments to April 3 Ruling at 6.

separate from the larger residential consumer guide will limit confusion, as the requirements of Pub. Util. Code §769.2 are not applicable to a majority of residential customers. Therefore, the Commission directs Utilities to create a Prevailing Wage Disclosure Form (Disclosure Form) and requires the eligible customer acknowledge receipt of this disclosure as part of the interconnection application. Details on the disclosure form and its due date are provided in Section 3.6.6. below.

3.6.3. Tariff Alignment

To ensure transparency regarding Pub. Util. Code §769.2, the tariffs should align with the requirements of the statute. Parties were asked to propose new language to ensure such alignment.

Calling for the Commission to create a Prohibited Contractors List, Utilities assert that the net energy metering, net billing, and related tariffs and subtariffs require updates to ensure that customers are aware that a utility will not interconnect a system installed by a contractor on this list and advise the customer to consult the list prior to signing a contract. (In Section 3.6.1, the Commission determined that the statute requirements are not applicable to the NEM 1.0 and NEM 2.0 tariffs, unless a customer taking service under these tariffs seeks to upgrade the system or add storage.) CUE recommends inserting the entirety of the new statute into the tariff and include a certification that the customer is aware of the new requirements.⁴³¹ Utilities recommend summary language versus the entire tariff for less complexity and less confusion.⁴³² Further, Utilities oppose the certification because the customer is likely not

⁴³¹ CUE Opening Comments to April 3 Ruling at 2-3.

⁴³² Utilities Reply Comments to April 3 Ruling at 4.

paying the contractor's employees, and has no knowledge of or control over, the wages paid to a contractor's employees.⁴³³

CALSSA proposes that the Solar Protection Guide and the tariff be updated to include less technical language describing the requirements of Pub. Util. Code §769.2 but also require that the interconnection agreement also be updated to provide more technical language, including punishable actions and consequences.⁴³⁴ Utilities oppose insertion of the additional language in the interconnection agreement stating that this is unnecessary, (noting the proposal to include this in the Solar Protection Guide), and complicates interconnection forms due to the variety and number of interconnection forms.⁴³⁵

The Commission's intention in implementing this statute is to adopt the most simple and cost-effective manner of implementation. As such, the Commission finds that adopting the current practice of a thorough description of statutory requirements in the tariff, but not in the interconnection agreement, is a simple and cost-effective manner of implementation. Further, in the previous section above, the Commission required the creation of a Disclosure Form and customer acknowledgement of receipt of the form on the interconnection application. These items will be discussed more thoroughly in the implementation details below in Section 3.6.6. No later than December 15, 2023, Utilities shall submit the updated tariff language, pursuant to this section and Section 3.6.6., in the required Tier 2 advice letter.

Pub. Util. Code §769.2(b)(3) requires contractors to submit biannually, to the Commission, digital copies of payroll records for eligible projects. Parties

⁴³³ Utilities Reply Comments to April 3 Ruling at 4.

⁴³⁴ CALSSA Opening Comments to April 3 Ruling at 6.

⁴³⁵ Utilities Reply Comments to April 3 Ruling at 2-3.

were asked whether the Commission should require biannual payroll record submission compliance as a condition for tariff access.

CALSSA and CUE both agree that tariff access should be dependent on compliance with this element of the statute. Agreeing that, if a contractor fails to submit timely payroll records for a Generation Facility the contractor should “lose the ability to be named as the contractor,” CALSSA suggests that access could be restored with an opportunity to correct if and when records are submitted.⁴³⁶ CALSSA recommends the Commission create a dedicated mechanism for receiving payroll records and suggests the Commission host a workshop on this topic.⁴³⁷

Utilities propose the Commission create a contractor registration and impose a registration requirement for contract eligibility. Utilities recommend the Commission should not begin applying the statute until a deadline for payroll submission has been determined, the contractor registration system has been created, and the process to obtain prompt notice of willful violations of the statute has been established.⁴³⁸ CUE, however, contends that the Commission does not have the authority to change statutory mandates and therefore cannot delay the application of the statute until processes are in place.⁴³⁹

SEIA maintains the statute does not provide “for the Commission to condition customer access to a Utility’s standard contract or tariff on contractor compliance with the biannual payroll submission requirement.”⁴⁴⁰ Pointing to

⁴³⁶ CALSSA Opening Comments to April 3 Ruling at 6-7.

⁴³⁷ CALSSA Opening Comments to April 3 Ruling at 6-7.

⁴³⁸ Utilities Opening Comments to April 3 Ruling at 14-15.

⁴³⁹ CUE Reply Comments to April 3 Ruling at 8.

⁴⁴⁰ SEIA Opening Comments to April 3 Ruling at 6.

the statutory language, SEIA argues that “the only instance in which access to the tariff can be denied is when noncompliance of the prevailing wage requirement has been enforced against the contractor.”⁴⁴¹ CUE disagrees with SEIA, arguing that the Commission is statutorily mandated to ensure that a utility’s rates, terms, and services are just and reasonable.⁴⁴² Further, CUE asserts it is the purview of the Commission to decide what rate a customer gets and what tariff applies.

Because the statute requires a contractor to submit to the Commission certified payroll records for projects pursuant to Pub. Util. Code §769.2, it is necessary to create a process to receive these records. Subject to budget appropriation, the Commission should authorize the Director of Energy Division to hire a consultant to devise a system to collect the payroll records required by the statute and review them for completeness.

As the Commission is responsible for collecting these records, the Commission agrees with CUE that it is within the Commission’s jurisdiction to require submittal of the records by a contractor as a requirement of access to the tariffs created pursuant to Pub. Util. Code §2827 and Pub. Util. Code §2827.1. While the Commission concurs that Pub. Util. Code §769.2 does not contain a penalty for not submitting the payroll records, the statute does not prohibit the Commission from establishing such a penalty.

Again, Pub. Util. Code §769.2 establishes the penalty of eligibility to the tariff pursuant to Pub. Util. Code §2827 or Pub. Util. Code §2827.1 for willful violation by the contractor of the prevailing wage requirement. However, the

⁴⁴¹ SEIA Opening Comments to April 3 Ruling at 6.

⁴⁴² CUE Reply Comments to April 3 Ruling at 7 citing Pub. Util. Code §451.

penalty for noncompliance by the contractor is that the Generation Facility loses access to the tariff resulting in a negative impact on the customer. Hence, the Commission directs Utilities to establish a requirement in the tariff that a contractor shall comply with the payroll submission requirement in Section 769.2 and that noncompliance will result in the contractor losing access to being named as a contractor for a Generation Facility accessing the tariff and the application process paused any prior reporting requirement is met. The Commission finds that this requirement and penalty will protect future customers seeking access to the tariff. If applicable, (*i.e.*, the contractor has been a named contractor on a previous project) the interconnection application process will not be deemed complete until the contractor has completed the most recent payroll submittal requirement.

Utilities shall update the associated tariff language to reflect this requirement. Utilities shall also update the interconnection application process to include a check-in with the Energy Division, or its consultant, to determine whether the named contractor on a project is current with respect to the requirement to submit payroll records. Previously, this decision authorized the Energy Division to hire a consultant to devise a system to collect the payroll records. Utilities shall enter into a non-disclosure agreement with the consultant, no later than 30 days from the adoption of this decision. The agreement shall cover receiving and sharing data in support of all tasks described in Section 3.6.

3.6.4. Agency Coordination

Pub. Util. Code §769.2 establishes roles and responsibilities for several entities: contractors, Utilities, Department, and the Commission. Parties were asked if there were confidentiality agreements or communication protocols needed to ensure proper communication between these multiple entities.

Utilities maintain there are no confidentiality agreements needed. The payroll records required to be submitted by contractors to the Commission do not need to be public, this will protect the rights of employees and construction workers. Although, Utilities assert that “to the extent that payroll records are the subject of a Public Records Act request, the records should be redacted as set forth in Labor Code, § 1776.” Utilities contend “there is no need for the Commission or Utilities to share customer data with any regulator other than the Commission” as other agencies have subpoena powers.⁴⁴³ Because of these powers, Utilities recommend against sharing confidential customer data, pursuant to a nondisclosure agreement (NDA).

Utilities caution that NDAs “do not agree to keep information confidential, but rather agree to give the party producing the data sufficient notice to obtain a court ordered injunction.”⁴⁴⁴ CUE disagrees with Utilities highlighting that Labor Code 1776(c) requires employee information to be marked or obliterated from submittals to the Commission, whereas contractor information is not required to be marked or obliterated.⁴⁴⁵

SEIA agrees with Utilities that no confidentiality agreements are necessary. SEIA also references Labor Code §1776(e), contending the information does not need to be in redacted form as the code requires that any copies of the records made available for public inspection must redact each individual’s name, address, and social security number.⁴⁴⁶

⁴⁴³ Utilities Opening Comments to April 6, 2021 Ruling at 15-16.

⁴⁴⁴ Utilities Opening Comments to April 6, 2021 Ruling at 16.

⁴⁴⁵ CUE Opening Comments to April 6, 2021 Ruling at 4.

⁴⁴⁶ SEIA Opening Comments to April 6, 2021 Ruling at 7.

CALSSA offers a different approach, recommending the Commission provide access to the Utilities' interconnection application search engines to the Department so that the Department can identify the applications required to comply with Pub. Util. Code §769.2. CALSSA points out that a similar process exists with CSLB and the California Department of Financial Protection and Innovation, where access to the interconnection applications was granted in D.21-06-026 through search engines built and maintained by Utilities.⁴⁴⁷

The statute requires contractors to submit copies of payroll records to the Commission. The statute provides enforcement of the statute to be conducted in three ways, one of which is "within 18 months after completing the [Generation Facility], by the Labor Commissioner, *i.e.*, the Department, through the issuance of a civil wage and penalty assessment." Utilities' interconnection application search engines contain the relevant information to ascertain the renewable electrical generation facilities eligible for this review. The Commission agrees with CALSSA that providing the Department access to the interconnection application search engines is the most efficient manner to implement this requirement. Further, similar access has been granted by the Commission in the past. Accordingly, this access should be granted to the Department. Utilities shall ensure such access is made available no later than December 15, 2023.

D.20-08-001 previously delegated authority to the Director of Energy Division, or their designee, to adjust data access in response to changing needs.⁴⁴⁸ The Commission continues this authorization; the Director of Energy Division or their designee may add or remove interagency staff and/or consultants, as

⁴⁴⁷ CALSSA Opening Comments to April 6, 2021 Ruling at 7 citing D.21-06-026 at 6.

⁴⁴⁸ D.20-08-001 at 13.

needed, given that these specifics are not known at this time. Further details are discussed in Section 3.6.6 below.

3.6.5. Additional Customer Protections

As a result of responses to the April 3 Ruling, the Commission adopts additional customer protections to be included in the update of the affected tariffs. Additionally, the comments, as discussed below, prompt the Commission to adopt the Department of Industrial Relation's (Department's) definition of "willful violation."

Parties were asked whether the Commission should take action to address split incentives between utility customers, generation operators, and contractors following the implementation of Pub. Util. Code §769.2. Utilities contend the statute penalizes the customer, which does not incentivize the contractor to comply with prevailing wage requirements, other than having a risk of lawsuit. Utilities maintain, if the contractor does not comply and the Generation Facility loses access to the tariff, "the customer is financially damaged" with no guarantee of financial recovery.⁴⁴⁹ GRID suggests that the Commission offer a way to restore access by allowing time for contractors to "issue corrective back-pay and take any other restorative steps."⁴⁵⁰ GRID and SBUA contend this restorative process would be a balanced approach and avoid inappropriately penalizing the customer.⁴⁵¹

CALSSA submits that both customers and contractors will be motivated to comply.⁴⁵² Asserting that the Department could punish a contractor for violations

⁴⁴⁹ Utilities Opening Comments to April 3 Ruling at 16.

⁴⁵⁰ GRID Opening Comments to April 3 Ruling at 6

⁴⁵¹ SBUA Reply Comments to April 3 Ruling at 1 and 3.

⁴⁵² CALSSA Opening Comments to April 3 Ruling at 7.

through their own methods, CALSSA, as well as SBUA, recommend the Commission have its own parallel process and “use a very conservative definition of willful violation.”⁴⁵³ SEIA suggests the Commission rely on the Department determinations and that no removal of access to the tariff be taken by the Commission until the contractor has exhausted or waived all appeals in the Department civil wage and penalty assessment process.

The Commission is concerned about the imbalance of incentives for compliance with the statute. However, the statute restrains the Commission from adopting the approach suggested by GRID. The statute is explicit in stating that the prevailing wage requirement can only be enforced through the Labor Commissioner, an administrative complaint, or civil action. Hence, the Commission agrees with SEIA that no action should be taken by the Commission or Utilities until the Department, or other identified agent, completes their assessment and makes its determination. Since the Commission is not conducting the assessment, there is no need for a separate definition of willful violation. The Commission finds that adopting the Department’s definition of willful violation will provide contractors with the same treatment between the two agencies. Accordingly, the Commission adopts the Department’s definition of willful violation.

Relatedly, the Commission asked parties to comment on the notification process to ensure that all appropriate entities are aware of the Department’s determinations of a willful violation of the prevailing wage requirement. Utilities contend that the Commission should be notified by the Department of

⁴⁵³ CALSSA Opening Comments to April 3 Ruling at 7-8 and SBUA Reply Comments to April 3 Ruling at 3.

enforcement actions, not Utilities.⁴⁵⁴ However, for a Generation Facility deemed no longer eligible for the net billing or net energy metering tariff, Utilities recommend that the Commission permit Utilities to automatically transition the affected customer to a non-export or uncompensated export tariff so the customer can continue to offset their own load and realize bill savings. Utilities note that a non-export tariff requires a non-export relay, which will result in additional costs to the customer.⁴⁵⁵

While the Commission appreciates Utilities' attempt to protect customers, the statement regarding the non-export relay is incorrect. Pursuant to Electric Rule 21 (the Interconnection of distributed energy resources), there are customers with non-export interconnection agreements, but their tariffs are separate. Further, if a net billing tariff customer loses access to the tariff due to a contractor's incompliance with Pub. Util. Code §769.2, that does not change the safety of their system and the tariff change should not impact the interconnection agreement. A loss of any net energy metering or net billing tariff (for a prevailing wage violation) does not require further engineering review or new equipment to become a non-export facility. The Commission should prohibit Utilities from requiring this additional equipment of customers losing access to the net energy metering or net billing tariffs.

Because these facilities can remain interconnected to the grid and are exporting available energy, they may be considered a qualifying facility under PURPA. PURPA generally requires that a utility must take the energy of a qualifying facility and pay the avoided cost for that purchase, meaning the

⁴⁵⁴ Utilities Opening Comments to April 3 Ruling at 17.

⁴⁵⁵ Utilities Opening Comments to April 3 Ruling at 17.

incremental cost to the utility of alternative electric energy. In D.20-05-006, the Commission set an avoided cost rate for as-available energy sold by a qualifying facility to a utility without a contract.

Returning to the subject of the notification process, once the Department begins to conduct a payroll assessment, the notification process needs to take place. Parties did not provide the specifics of this process, *i.e.*, notification responsibilities. However, contending that both the Department and CSLB will enforce the prevailing wage requirement, CALSSA points to Labor Code §98.8 that requires the Department to share with CSLB a finding of a violation of the Labor Code.⁴⁵⁶

Given a process of information sharing exists between the Department and CSLB, the Commission should establish a similar approach with these entities and Utilities. First, however, this decision points out that CALSSA is incorrect in its description of CSLB's role in enforcement. CSLB does not have the authority to investigate prevailing wage violations. Given there is no known rule in the Labor Code requiring the Department to share a finding of a prevailing wage violation with the Commission or Utilities, the Commission requires Utilities to enter into or amend existing confidentiality agreements with the Department and CSLB to receive notice of willful wage violations.

Utilities contend the Commission, not Utilities should receive notice of these willful violations. The Commission disagrees, as the Utilities will need the information to ensure customers (with Generation Facilities no longer eligible for the net energy metering or net billing tariffs) are placed on alternate tariffs and, beginning on January 1, 2025, contractors who have been found in violation of

⁴⁵⁶ CALSSA Opening Comments to April 3 Ruling at 8.

the prevailing wage rule will not be permitted to apply to interconnect facilities with access to the applicable tariffs in the future. Utilities are expected to track and enforce prohibitions (of violating contractors) as part of the interconnection application process. Because Utilities are required to remove facilities with a violation from the tariff, notify affected customers of such a removal, and process new interconnection applications, Utilities are best positioned to collect and maintain relevant contractor information. Accordingly, the Commission directs Utilities to deny interconnection applications submitted by a contractor previously found to have violated the prevailing wage requirement.

To ensure proper notification to a customer that the Department has found a willful violation and deemed the customer's Generation Facility no longer eligible for the net billing or net energy metering tariff, Utilities are directed to update the tariff to provide the affected customer advanced notification of the lost tariff access, as determined by the Department. The notification shall indicate the next monthly billing cycle, which must be at least 30-days from the issuance of the notice, when the tariff will be adjusted.

Additionally, it is fair to the customer to allow tariff access to be restored if a willful wage violation is reversed or nullified by the determining body and the generation account holder or customer/property owner provides documentation to the utility. In this case, the Commission will allow restoration of tariff access.

Finally, the Commission finds that a customer should continue to realize some compensation for their Generation Facility upon losing access to the net energy metering or net billing tariff and must have an option in compliance with PURPA. The Commission should require Utilities to compensate the affected customer in compliance with PURPA. Accordingly, the Commission directs Utilities to submit, no later than February 1, 2024, a Tier 2 advice letter proposing

the specifics of a customer-generation export tariff using the pricing established by the Commission in D.20-05-006. The Utilities shall consider the different impact to customers on the VNEM and virtual net billing tariff, and alternatives to address this new tariff.⁴⁵⁷ The final proposal shall address options when one Generation Facility in an arrangement is found in violation of prevailing wage rules.⁴⁵⁸

3.6.6. Implementation Details

As previously described in the preceding subsections of Section 3.6, to implement Pub. Util. Code §769.2, changes are necessary to the associated tariffs and the interconnection application processes. This section provides a list of all required changes and documents adopted above and the due dates for these changes and documents.

A. Interconnection Application Process Changes

In Section 3.6.1 through 3.6.5, this decision describes several changes to the Interconnection Application Process the Commission adopts to implement AB 2143 and Pub. Util. Code §769.2. Utilities shall revise the Interconnection Application Process to include the completion of the Pub. Util. Code §769.2 Checklist and the Pub. Util. Code §769.2 Prevailing Wage Disclosure Form, which are described below.

The updated interconnection application process shall also be revised to include a step where the utility confirms with Energy Division or its consultant that the contractor is up to date with their required submittals of payroll records. Interconnection cannot be completed until the contractor has satisfied their most recent filing requirements.

⁴⁵⁷ For example, for customers with a NGOM, consider issues with a PURPA compliant export tariff benefiting account customers.

⁴⁵⁸ For example, for customers with a NGOM, compensated PURPA compliant export tariff is necessary as there is no import rate tariff.

(i) Pub. Util. Code §769.2 Checklist

In section 3.6.1 above, the Commission directed Utilities to develop a Pub. Util. Code §769.2 Checklist to determine whether a project is eligible and, if it is, whether all required forms have been submitted. Utilities shall be responsible for confirming whether a Generation Facility must meet the prevailing wage rules. This process mirrors the current functionality for validating and authenticating CSLB license numbers and the CSLB Disclosure form as directed in Decision D.18-09-044.

The checklist may read:

1. Will this project export energy to the grid? Yes or No? If yes, it may be subject to Pub. Util. Code §769.2.
2. Is this a residential Generation Facility with a capacity that is over 15 kW of electricity? Yes or No? If yes, it is subject Pub. Util. Code §769.2.
3. Is this a single-family home? Yes or No? If yes, this project is *not* subject to Pub. Util. Code §769.2.
4. Is this a public works project (Section 1720 of the Labor Code, and that is subject to Article 2 (commencing with Section 1770) of Chapter 1 of Part 7 of Division 2 of the Labor Code)? Yes or No? If yes, this project is *not* subject to Pub. Util. Code §769.2.
5. Is this a modular home, a modular home community, or multiunit housing that has two or fewer stories? Yes or No? If yes, this project is *not* subject to Pub. Util. Code §769.2.
6. If you answered “no” to questions #3 to #5, then your project must follow Pub. Util. Code §769.2.

(ii) Pub. Util. Code §769.2 Prevailing Wage Disclosure Form (Disclosure Form)

The Interconnection Application process is revised to include submittal of the Disclosure Form. Utilities shall

create and submit the Disclosure Form describing in plain language, for covered customers, how prevailing wages work and how failure to comply will impact them and their project. The Disclosure Form shall be written as an acknowledgement of risk related to the customer project's future tariff access and shall make clear that the customer is not responsible for a contractor's actions. The Disclosure Form must be provided to customers as part of the first pages of their solar contracts and will become part of the Interconnection Application.

Utilities shall submit the proposed Disclosure Form as part of a compliance advice letter, which is described at the end of this section.

These Interconnection Application Process updates shall be completed by December 15, 2023, in order to meet the statutory deadline of January 1, 2024. Utilities shall track and store the signed Disclosure Form and provide it to Energy Division upon request.

B. Pub. Util. Code §2827 and §2827.1 Tariffs Changes

Utilities shall propose revised and additional tariff language for impacted tariffs (those developed under Pub. Util. Code §2827 or §2827.1) in a Tier 1 advice letter, described at the end of this section. The proposed language additions and revisions shall reflect the changes discussed throughout Section 3.6 of this decision and include the following:

- A summary of Pub. Util. Code §769.2 in plain language;
- Exceptions, especially for systems with interconnection applications submitted prior to January 1, 2024;
- A requirement that the Generation Facility's contractor confirms that payroll record submittals from the most recent reporting period and deadline were submitted and deemed complete;
- An acknowledgement that the prevailing wage rules are tied to a given Generation Facility, not the

customer, so in the case of a wage violation, a given customer may have a site or sites where some facilities lose tariff access and others do not;

- Language describing in detail that if a willful wage violation occurs, the customer will be notified when tariff eligibility will be automatically revoked;
- A provision that a Generation Facility deemed no longer eligible shall be shifted to a PURPA compliant tariff and any existing benefiting accounts will lose their carry-over benefits (either export compensation and/or energy offsets) from their associated generating account(s);
- A disclaimer stating that if a willful wage violation occurs, the tariff will remain accessible until the Department completes their assessment and makes a final determination;
- A provision for a 30-day advance notice of a violation occurrence deeming the single account Generation Facility no longer eligible for the tariff, with no tariff change until the next billing cycle after the 30 days have passed. The notice shall include a reference to the Department or civil court decision and communicate when there will be an automatic transition to a PURPA compliant tariff;
- A provision for a 60-day advance notice to each account holder of a violation occurrence deeming the Generation Facility with a net-generating output meter and multiple benefiting accounts no longer eligible for the tariff, with no tariff change until the next billing cycle after the 60 days have passed. The notice shall include a reference to the Department or civil court decision and communicate when there will be an automatic transition to a PURPA compliant tariff; and
- Clarification that tariff access will be restored if a willful wage violation is reversed or nullified by the determining body and the generation account holder

or customer/property owner provides documentation to the utility.

C. Interconnection Portal Data Sharing

As directed in Section 3.6.4 above, Utilities shall make their interconnection portals available to Department staff pursuant to the same method adopted in D.21-06-026 Section 3. The Director of Energy Division, or their designee, is authorized to add or remove interagency staff as needed in recognition that this requirement may benefit from further refinement to respond to changing implementation needs.

D. Confidential Disclosure Agreements

As directed in Section 3.5.5 above, Utilities shall enter into or amend existing confidential disclosure agreements with the Department and CSLB to receive notice of willful wage violations. To ensure implementation by January 1, 2024, Utilities shall begin discussions immediately to reach an agreement by December 15, 2023.

E. PURPA Compliant Tariff

As directed in Section 3.6.5 above, Utilities shall develop a PURPA compliant tariff for customer-generators who have lost access to their net energy metering or net billing tariff, including related tariffs or subtariffs, due to a willful violation of the prevailing wage requirement by the project's contractor. The tariff shall compensate the Generation Facilities at the avoided cost price for as-available energy as established in D.20-05-006, which is calculated using the hourly locational marginal prices from the CAISO day-ahead market for the node specific to a facility. Utilities shall submit a Tier 2 advice letter no later than February 1, 2024. Utilities shall coordinate before submission to ensure language uniformity to the extent possible.

F. Joint Utilities Pub. Util. Code §769.2 Compliance Advice Letter

To facilitate an expedient implementation of Pub. Util. Code §769.2, Utilities are directed to submit one, consolidated,

compliance joint Tier 1 advice letter no later than December 15, 2023, for approval of:

- 1.) Pub. Util. Code §769.2 Prevailing Wage Disclosure Form.
- 2.) Common Pub. Util. Code §769.2 Tariff Language and updated Pub. Util. Code §2827 and 2827.1 tariff sheets.

Utilities are directed to host an informal workshop prior to submission of the consolidated advice letter to present a draft and receive stakeholder feedback and input.

On October 30, 2023, the Commission received a letter from 20 Tribal Governments requesting clarifications to the proposed decision to ensure that implementation of AB 2143 and Pub. Util. Code §769.2 do not infringe upon the inherent sovereignty and jurisdiction of federally-recognized Indian Tribes for renewable energy projects located in Indian country. Although the signatory Tribal Governments are not parties to this proceeding, Commission Rules of Practice and Procedure, Rule 1.2, and the Commission’s Tribal Consultation Policy permit the Commission to take notice of a letter from Tribal Governments.⁴⁵⁹

The letter states that, “[...]contractors and [investor-owned utilities] are expressing uncertainty regarding whether [Pub. Util. Code] §769.2 is supposed to

⁴⁵⁹ The Commission’s Tribal Consultation Policy contains steps the Commission will take to encourage and facilitate tribal government participation in its programs and proceedings, including that: “Commission staff and Administrative Law Judges shall make efforts to ensure that relevant information the Commission receives from a tribal government is submitted into the record of a proceeding, consistent with the confidentiality provisions of this policy set forth below. Where a tribal government has submitted written comments in a proceeding, the decision shall explain the tribe’s concerns and how they are addressed. Where the Commission is unable to fully address the tribe’s concerns, the Commission shall clearly explain the legal, practical, or policy considerations underlying its decision.” (Tribal Consultation Policy at 3.)

be implemented for renewable electrical generation facilities constructed in Indian Country to the potential significant detriment of Indian tribes, tribal sovereignty, and the right to self-government.”

This decision does not intend to impose conditions on Tribal Governments that are inconsistent with Tribal sovereignty and jurisdiction on California Indian Lands. Consistent with the Commission’s Tribal Consultation Policy, contractors and investor-owned utilities that have implementation questions with respect to renewable energy projects on Indian Lands should contact the Commission’s Deputy Executive Director of Energy and Climate Policy or the Commission’s Office of the Tribal Advisor. Commission staff should work to timely resolve these issues.

4. Procedural Matters

This decision affirms all rulings made by the Administrative Law Judge and assigned Commissioner in this proceeding. All motions not ruled on are deemed denied. Having addressed all issues in the scope of this proceeding, R.20-08-020 is closed.

5. Summary of Public Comment

Rule 1.18 allows any member of the public to submit written comment in any Commission proceeding using the “Public Comment” tab of the online Docket Card for that proceeding on the Commission’s website. Rule 1.18(b) requires that relevant written comment submitted in a proceeding be summarized in the final decision issued in that proceeding. As this is the second decision in this proceeding, this decision only addresses public comments provided after the first decision, D.22-12-056, was adopted and only those comments related to the issues in this decision.

Over 1000 members of the public commented in opposition to the proposed decision. Commenters represent Californians from across the state with the following cities providing the most comments: Oakland (52 responses), San Diego (41 responses), Berkeley (47 responses), San Francisco (38 responses) and Fresno (33 responses). Over 445 of these commenters expressed concern that the proposed decision may discourage the growth of rooftop solar for virtual net energy metering for multitenant properties. Approximately 180 commenters conveyed concern that the proposed decision introduces inequities between those enrolled in the solar tariff for single family homes versus those enrolled in the solar tariff for multitenant properties. Relatedly, 161 commenters say this inequity is caused by not allowing netting and 119 commenters contend that this inequity could negatively affect the low- and middle-income multifamily tenants who are renters, thus conflicting with the Commission's efforts to address affordability. Two hundred sixty-six commenters assert that the proposed decision allows the investor-owned utilities to control solar energy and/or financially benefits investor-owned utilities. Lastly, approximately 130 commenters' concerns focus on the negative impact of the proposed decision on the Commission's efforts to combat climate change. Note that the total number of commenters and the specific subject matter comments are not equal as some commenters expressed concern on more than one matter.

6. Comments on Proposed Decision

The proposed decision of Administrative Law Judge Kelly A. Hymes in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on August 22, 2023 by Agricultural Parties, Bloom Energy, Cal Advocates, CALSSA, CSE, CUE,

Grid et al., Ivy Energy, Joint CCAs, PCF and CBD, Sierra Club, SBUA, SEIA, Sunrun, and Utilities and reply comments were filed on August 28, 2023 by Agricultural Parties, Cal Advocates, California Building Industries Association, CALSSA, CSE, Clean Coalition, CUE, County of Los Angeles, FuelCell Energy, Inc., Ivy Energy, Sierra Club, SBUA, SEIA, Southern California Gas Company, Sunrun, and Utilities . Clarifications and corrections have been made throughout this decision in response to the comments. Where comments repeat legal and policy arguments previously made in the record of the proceeding, the Commission declines to address such repetition. Below, this decision discusses comments related to equity and the sunset period for the VNEM tariff and the NEMA subtariff.

Parties argued for a nuanced treatment of equity, whereby parties assert that the Commission should allow for property-wide netting in the successor VNEM tariff because otherwise the Commission is not treating customers on the VNEM tariff, who are typically renters and have predominantly lower-incomes, on a level basis with customers on the net billing tariff, who are homeowners and have higher-incomes. Many parties argued that this uneven treatment conflicts with the statute and the Guiding Principles adopted earlier in this proceeding. The Commission is persuaded to revise its policy of no netting and allow for unit-level netting of residential customers on the virtual net billing tariff.

Utilities requested the Commission to implement an immediate sunset of the existing VNEM and NEMA tariffs with the adoption of this decision. Pointing to the increase in NEM 2.0 tariff interconnection applications following the adoption of D.22-12-056, Utilities anticipate that there will be an increase of VNEM and NEMA tariff interconnection applications following the adoption of this decision. Utilities contend this will “stress the already packed

interconnection queues and produce backlogs.”⁴⁶⁰ Utilities assert the immediate termination of these two tariffs is fair because the industry has anticipated the tariff would be terminated since the adoption of D.22-12-056.⁴⁶¹ SEIA and CALSSA oppose such a termination, noting that the proposed decision already shortened the sunset period by 30 days as compared to the sunset period for the NEM 2.0 tariff.⁴⁶² The Commission declines to revise the sunset period. As pointed out by SEIA, the sunset period protects customers who are in the process of contracting for these tariff services.⁴⁶³

7. Assignment of Proceeding

Alice Reynolds is the assigned Commissioner and Kelly A. Hymes is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. The VNEM tariff and the NEMA subtariff are distinct options from the Green Access Programs.
2. There is no justification for delaying a determination on either the VNEM tariff or the NEMA subtariff while the Commission considers the Green Access Programs in another proceeding.
3. Utility data provided in this proceeding indicates three categories of customers: residential, mixed, and nonresidential, but there is no definition for the mixed category.

⁴⁶⁰ Utilities Opening Comments to Proposed Decision at 7-8.

⁴⁶¹ Utilities Opening Comments to Proposed Decision at 7-8.

⁴⁶² See CALSSA Opening Comments to Proposed Decision at 3 and SEIA Opening Comments to Proposed Decision at 2-3.

⁴⁶³ See SEIA Opening Comments to Proposed Decision at 2-3.

4. .Based on utility data, the Utilities' assertion that VNEM tariff enrollees are predominantly nonresidential customers is misleading.

5. Utilities define the mixed enrollees category as a VNEM tariff arrangement that includes both residential and non-residential accounts.

6. Seventy-six percent of the total VNEM tariff facilities serve residential and mixed residential customers.

7. The general VNEM tariff predominantly serves residential customers.

8. No party presented quantifiable benefits of the VNEM tariff that can be measured in a cost-effectiveness analysis.

9. There are several unquantifiable benefits of the VNEM tariff.

10. Generation Facilities on a VNEM tariff that serve residential customers provide slightly higher grid benefits than solar-only systems on the NEM 2.0 tariff because the residential VNEM tariff Generation Facility serves multiple residential customers.

11. A multitenant property on a VNEM tariff has multiple loads served by the same Generation Facility.

12. Because the VNEM tariff provides renters and customers in disadvantaged communities improved access to customer generation, the tariff assists the Commission in meeting the objective of increasing equity, as required by Pub. Util. Code §2827.1.

13. Parties provided potential distinguishable VNEM tariff costs, as compared to the NEM 2.0 tariff, but few quantifiable cost differences.

14. Customers on the current VNEM tariff pay non-bypassable charges based on their consumption from the grid.

15. Tenants sharing a single delivery point of generation pay more than their fair share of grid costs.

16. The record does not contain the number of benefiting accounts that pay more than their fair share as compared to NEM 2.0 tariff customers.

17. The existing VNEM tariff provides slightly more quantifiable benefits as compared to the NEM 2.0 tariff.

18. The existing VNEM tariff for residential customers causes a significantly smaller cost shift per customer than the NEM 2.0 tariff.

19. The existing VNEM tariff for nonresidential customers concentrates benefits to comparatively few customers, on average.

20. It is a common practice for some multifamily property owners to permanently switch their tenants' electrical accounts to make the property owner the customer of record which does not comply with the VNEM tariff requirements.

21. Customer access to their benefiting account is required to retain access to the VNEM tariff.

22. CALSSA's proposal to permit a customer's CARE account to be used by the property manager does not comply with the VNEM tariff.

23. When generation and customer meters share a physical connection to the grid, self-consumption can occur.

24. In PG&E's territory, seventy-seven percent of VNEM tariff generation and load share a transformer and forty-one percent of VNEM, MASH, and SOMAH generation and load share a transformer.

25. Complexity and cost of installing generation at multitenant properties led the Commission to establish the policy that renewable generation installed on multitenant properties does not require onsite consumption.

26. Because the quantifiable costs and benefits of the VNEM tariff are not remarkably different from the quantifiable costs and benefits of the NEM 2.0

tariff, it is reasonable to rely on the cost-effectiveness results of the NEM 2.0 tariff.

27. The current VNEM tariff is not cost-effective.
28. The DER Shared Tariff provides value to its participants by reflecting the self-consumption that can occur for properties with a shared transformer.
29. The DER Shared Tariff and property netting presents environmental, economic, equity, and legal conflicts or barriers.
30. Property netting would remove any price signal to individual benefiting account holders.
31. Compensating benefiting account holders at their residential retail rate, instead of the Avoided Cost Calculator value, does not send the proper price signal.
32. In the DER Shared Tariff, credits to benefiting account holders would vary based on actual energy consumption of the entire property, which would make it difficult to predict the cost of using energy during generation hours.
33. In the DER Shared Tariff, benefiting account holders would not know the best times to use energy or abstain from using energy.
34. The variability of the DER Shared Tariff would create a barrier to the Commission and California meeting their environmental objectives.
35. The DER Shared Tariff would lead to increased administrative costs.
36. The DER Shared Tariff could result in inequities for benefiting account holders.
37. Bill predictability and low bills are crucial to lower-income households, the predominant customers of residential multitenant properties.
38. A lack of predictability and ability to ensure low bills in the DER Shared Tariff would limit equity, which is a requirement of this tariff.

39. The DER Shared Tariff would remove the price signal from customers and results in treating a property like a master-metered property.

40. The property netting and accounting of onsite consumption and generation produced could result in all generation earning credits in value equal to the retail import rate.

41. The DER Shared Tariff property netting proposal would not accurately reflect each customer's usage in their monthly utility bill.

42. The DER Shared Tariff would result in customers not being assessed for their fair share of transmission, distribution, generation, and non-bypassable charges.

43. The DER Shared Tariff would cause a cost shift similar to that of the VNEM tariff.

44. Mirroring the use of the Avoided Cost Calculator values to set export compensation rates would send the correct price signals to benefiting account holders.

45. Sending correct price signals to benefiting account holders leads to the tariff customers providing greater benefits to the grid, which is one of the objectives of the successor tariff.

46. Nothing presented in the record of this proceeding leads the Commission to alter its prior determination to base retail export compensation rates on Avoided Cost Calculator values.

47. Modification of the Utilities' proposal for a virtual net billing tariff balances the competing requirements of the Guiding Principle and statute and presents the best option for a successor to the VNEM tariff.

48. In the net billing tariff, customers are compensated for net generation but in the Utilities' virtual net billing tariff customers would be compensated for

their allocation of all generation, which leads to an accurate distribution of retail export compensation value but does not provide the same opportunity for multifamily customers to benefit financially from onsite solar as the net billing tariff does for single family home customers.

49. Utilities proposed virtual net billing tariff with no netting conflicts with the requirements to ensure equity among customers and maximize the value of generation to all customers.

50. Fifteen-minute unit-level netting in virtual net billing will approximate the availability of self-consumption provided to residential net billing tariff customers and will provide commensurate compensation between homeowners on the net billing tariff and renters on the virtual net billing tariff.

51. Fifteen-minute unit-level netting will allow for a more accurate bill savings estimate.

52. Utilities currently collect, store, and share energy data with nonresidential customers at 15-minute intervals.

53. Nothing in the record of this proceeding causes the Commission to amend its previous finding that hourly netting could lead to additional strain on the grid.

54. Utilities' proposal to allow the monthly export compensation credit to offset any portion of the bill would not comply with the statute's requirement to ensure the costs and benefits of the tariff are equal to all ratepayers.

55. Utilities' proposal to allow export compensation credits to offset any portion of the customer's bill would increase the costs for nonparticipants, leading to higher bills for nonparticipants.

56. Nothing in the record of this proceeding warrants a change to the size to load or metering requirements as established in the existing VNEM tariff.

57. In D.22-12-056, the Commission reiterated that reviewing onsite generation and usage in the aggregate is reasonable.

58. The adoption of 15-minute unit level netting for residential customers on the virtual net billing tariff makes reviewing aggregated generation and usage unworkable for net surplus compensation when properties have both residential and nonresidential benefiting accounts.

59. Having the same net surplus compensation calculation method for all tenants at the same property is a straightforward approach.

60. No adjustments are made to the previously adopted practice of calculating the net surplus compensation rate for the successor VNEM tariff.

61. It will be easiest for Utilities to execute the same net surplus compensation method for all virtual net billing tariff customers instead of differentiating between customer sectors.

62. The existing VNEM tariff requires that customers take service on time-of-use rates in conjunction with virtual self-consumption.

63. In the Utilities' proposed virtual net billing tariff, customers take service on any available rate schedule because bill credits are divorced from the rate on which a benefiting account customer takes service.

64. Requiring benefiting account holders to take service on electrification rates would not make sense because customers occupying multitenant properties do not have the opportunity to install storage in their individual units.

65. With no virtual self-consumption, the value of onsite generation to the customer is not affected by the customer's retail import rate at the time they use energy.

66. A virtual net billing benefiting account without virtual self-consumption does not get more or less value from their renewable generation facility as the account holder shifts their usage patterns.

67. For virtual net billing benefiting accounts with virtual self-consumption, there is an opportunity to align customer price signals with a desired behavior shift to use energy in the middle of the day during less costly periods and when generation is occurring.

68. In D.16-01-044, the Commission directed the VNEM tariff should be updated consistent with the net energy metering tariffs and that every residential net energy metering tariff customer is placed on time-of-use rates.

69. In the successor VNEM tariff, the load from the Generating Facility will not be applied to residential benefiting accounts with netting.

70. The purpose of the ACC Plus is to support the sustainable growth of distributed generation in California.

71. Adoption of the virtual net bill tariff will greatly decrease the per VNEM tariff customer cost shift but providing an ACC Plus adder to nonresidential customers would negate some of those savings.

72. SDG&E customers enrolled in the residential virtual net billing tariff already achieve a nine-year payback period due to higher retail rates.

73. Rates for energy consumption are anticipated to increase in the future.

74. The dollar value of energy offsets is higher than the dollar value of the Avoided Cost Calculator-based retail export compensation rates.

75. In combination with 15-minute unit-level netting, adoption of the net billing tariff ACC Plus adders should result in a nine-year payback period for residential virtual net billing customers.

76. The proposed ACC Plus adders will assist in enabling sustainable growth in the industry while recognizing the general characteristics of residential customers participating in the current VNEM tariff, *i.e.*, lower-income households.

77. There are unique circumstances for customers participating in a virtual net energy or net billing tariff.

78. Residential multifamily tenants, and in particular renters participating in the VNEM tariff, are not the decisionmakers for adding Generation Facilities, do not set their credit allocation, and do not have control over the sale of the property but pay for the Generation Facility on the property.

79. The cost to ratepayers of tying the nine-year legacy period to the Generation Facility instead of the property owner is outweighed by the potential harm to the residential benefiting account participants who would otherwise continue to bear the cost of the system without the benefit of the adder.

80. In D.22-12-056, the Commission determined that a customer currently taking service under a net energy metering or net billing tariff could add a storage device to their existing Generation Facility without altering their tariff status, including the legacy period.

81. The VNEM tariff and the successor VNEM tariff should be consistent with the net energy metering and net billing tariffs in allowing a current customer to add storage without negatively affecting the current tariff status.

82. Pursuant to D.22-12-056, Utilities amended the current VNEM tariffs to permit operation in isolation of the Generation Facilities, including storage devices, to serve onsite loads.

83. BOperation in isolation of the Generation Facilities to serve onsite loads is allowable,, provided the Generation Facilities are interconnected in ways that

they do not allow any load to register on meters and so it does not impact the retail export compensation rate in the virtual net billing tariff or the continuing VNEM tariffs.

84. The Commission finds nothing prohibiting the continuation in the virtual net billing tariff of allowing operation in isolation of the Generation Facility to serve onsite loads.

85. The request of CALSSA revise the VNEM tariff and its successor to automatically switch to a new tenant, *i.e.*, benefiting account is reasonable.

86. The request of CALSSA to revise the VNEM tariff and its successor to allow vacant units to stay enrolled in the VNEM tariff as a zero percent allocation level is unnecessary as any unallocated credits due to a vacancy are reallocated to a designated account..

87. Permitting grid-charging of onsite batteries would be challenging to accurately measure and provide generation credits since the net generation output meter is not permitted to be bidirectional.

88. The current VNEM tariff limits the charging of storage devices to come solely from the Generation Facility.

89. Parties appear to agree that a technical solution could exist to enable storage in a virtual arrangement to charge from the grid prior to planned outages.

90. There is merit in requiring Utilities to track progress in the key factors to delays in customers receiving bill credits after permission to operate is granted.

91. Given the amount of time that has elapsed since VNEM tariff fees were first established, it is reasonable to allow requests for adjustments for inflation.

92. It is beneficial to continue the SOMAH tariff as-is to maximize bill benefits so that property owners have the proper incentive to participate and so that

tenants continue to receive lower monthly electricity bills through the SOMAH credits.

93. The benefits of continuing the SOMAH tariff as-is justify any cost shift this program may cause.

94. The MASH program ended in December 2022, but the MASH tariff remains open for new enrollees meeting the eligibility requirements.

95. Keeping the MASH tariff open will provide property owners an incentive to participate and low-income tenants the opportunity to continue to receive lower monthly electricity bills.

96. Section 2827(c)(1) talks about the first-come first-served availability, implying that there is not an expectation that availability of the tariff will continue indefinitely.

97. Section 2827(c)(1) discusses the allowance for an additional meter or meters to monitor the flow of electricity for the purpose of providing “the information necessary to accurately bill or credit the eligible customer-generator pursuant to subdivision (h),” which describes the NEMA subtariff requirements.

98. Section 2827(c)(1) refers to all parts of the net energy metering tariff, including the NEMA subtariff.

99. The Commission did little to change the standard net energy metering tariff in D.16-01-044.

100. In D.16-01-044, the Commission chose to maintain Section 2827(h).

101. In D.16-01-044, it was the Commission’s choice to maintain the NEMA subtariff, even though it was not a requirement.

102. There is no statutory requirement to continue the provisions of Section 2827(h).

103. Electric Rule 21 requires all NEM 2.0 and net billing tariff customers (including NEMA subtariff customers) to pay an interconnection fee, this fee varies by utility, is currently between \$94 and \$145, and does not require payment for any distribution upgrades.

104. Only customer-generators with systems over one MW in capacity must pay for any transmission or distribution system upgrades and also pay an \$800 interconnection fee.

105. The savings from Utilities not being required to provide net surplus compensation to customers in the NEMA subtariff is insignificant and does not compensate for the additional interconnection costs caused by NEMA subtariff customers.

106. Not all NEMA subtariff customers are agricultural customers, thus not every NEMA subtariff customer pays for the costs of distribution, transmission, and non-bypassable charges.

107. Residential customers on a net energy metering tariff, which account for approximately one-third of NEMA subtariff customers, do not cover their fair share of distribution, transmission, and non-bypassable charge because decreased consumption from the grid lead to the bypassing of infrastructure and other service costs embedded in volumetric rates; this would also apply to residential customers on a NEMA subtariff.

108. Agricultural customers are not the predominant category of customers taking service on the existing NEMA subtariff throughout California.

109. The Lookback Study did not analyze the cost of service for the agricultural sector.

110. There is no evidence in the record that agricultural customers pay more than their cost of service.

111. NEMA subtariff customers include residential customers, mixed residential and commercial customers, and commercial customers.

112. The Lookback Study did not conduct a cost-of-service analysis on a mix of residential and commercial customers but found that commercial customers pay their cost of service, but residential customers do not.

113. Parties have offered little difference of costs and benefits between the NEM 2.0 tariff and the NEMA subtariff with the only difference being the nonpayment of net surplus compensation.

114. An Aggregation option is the most affordable option for customers, with multiple meters on adjacent or contiguous property, wanting to install onsite generation.

115. The new Aggregation subtariff will be an improvement over the current NEMA subtariff that bases export compensation on retail rates.

116. Basing export compensation on retail rates does not appropriately value export compensation because retail rates do not reflect the actual costs of the generation or the benefits the generation provides to all customers and the electrical system.

117. The Aggregation subtariff will not completely eliminate the cost shift but providing retail export compensation at Avoided Cost Calculator-based values (after a temporary ACC Plus glide) will eliminate the export compensation portion of the cost shift.

118. Net surplus compensation will accrue to net surplus generators on the Aggregation subtariff when, over the previous 12 months, generation and consumption are trued-up.

119. The transition to compensating net generation on a single set of retail export compensation rates rather than various retail rates will inherently

simplify the allocation process and allow the continuance of the credit and debit provisions in the Aggregation Subtariff.

120. Table 5-7 of the Lookback Study shows that the three nonresidential sectors of the NEM 2.0 tariff generally pass the TRC test.

121. Table 1-7 of the Lookback Study indicates that nonresidential sectors pay bills that are slightly higher than their costs of service, but Table 1-7 does not provide a separate comparison of the three nonresidential sectors.

122. The Watch List cannot currently capture the violators of CSLB and DFPI regulations.

123. D.21-06-026 Section 4 requires Utilities to issue notices to solar providers informing them that they have been placed on the Watch List; the notices are required to include the specific interconnection applications that were found non-compliant.

124. Neither CSLB nor DFPI collect interconnection application numbers, making it difficult to align CSLB and DFPI complaints with the Watch List.

125. The Commission, CSLB, and DFPI currently coordinate through the Interagency Solar Consumer Protection Task Force.

126. It is unnecessary to create a new task force to resolve the problem that the Watch List does not capture violators of CSLB and DFPI regulations.

127. The Watch List primarily identifies a list of providers committing administrative errors.

128. It is efficient and effective to revise the current Watch List process, based on CALSSA's proposed changes but with alterations.

129. There are concerns that reviewing current applications could cause additional approval delays, but these concerns could be balanced by reducing the number of random interconnection applications Utilities must manually

review in the spot audits; eliminating the requirement that Utilities provide notice to solar providers of Watch List placement; and eliminating the now obsolete removal process established in D.21-06-026.

130. Reviewing current applications and reducing the number of applications reviewed in the spot audits could decrease the number of providers placed on the Watch List for administrative errors.

131. It is not necessary to notify providers of placement on the Enhanced Review List given that it is an internal list and the purpose for its creation is to limit the weaponization of the public Watch List.

132. Review of interconnection applications prior to approval could slow the interconnection process for the noncompliant applicant but this should also encourage applicants to be compliant in the future.

133. Review of interconnection applications prior to approval is not onerous because the number of applications audited has decreased from 384 to 100 every six months.

134. The revised Watch List process will avoid unnecessary reputational harm and limit the weaponization of the Watch List by competitors.

135. The modifications to the Watch List process adopted here make the removal process adopted in D.21-06-026 obsolete.

136. Violations of Commission rules are more administrative and not as serious as violations of CSLB and DFPI regulations.

137. It is important to ensure that providers are complying with consumer protection rules.

138. The bill savings estimate method approved in D.20-08-001 is not compatible with the net billing tariff, due to the use of the ACC Plus.

139. There is benefit to the development of a standardized set of noncompliance criteria for the Watch List.

140. The Commission is not persuaded by CALSSA's contention of barriers to comply with the requirement to include the Home Improvement Salesperson registration number and the address of the applicable financier.

141. The changes to the Watch List process minimize the role of Utilities in the Watch List process.

142. Additional directives such as requiring or authorizing Utilities to permanently deny an application for noncompliance with consumer protection rules or report the results of enhanced pre-approval reviews would not reflect this change of role.

143. Neither permanently denying an application for noncompliance with consumer protection rules nor publicly reporting a noncompliance list for clerical errors promotes consumer protection.

144. The focus of any billing improvement effort should be on customers of the net billing tariff, given that Utilities are implementing the net billing tariff and billing system upgrade initiatives.

145. Now is not the appropriate time to begin a process to review net billing tariff billing.

146. Improving utility net billing tariff bill presentation should be delayed until after Utilities have begun billing customers under the tariff.

147. Engaging a statewide vendor for the purposes of developing a standardized bill is neither necessary nor cost effective.

148. Collaboration between Utilities, community choice aggregators, as well as other stakeholders is necessary to ensure that bill presentation issues, including those unique to unbundled customers, are addressed.

149. Utilities need to work within the constraints of their own billing system and not incur additional expense for the purpose of statewide uniformity.

150. A workshop on solar misinformation would be duplicative of other existing efforts.

151. Utilities do not have the ability to accurately determine whether a customer's solar system is performing correctly nor is it an appropriate role for them; but monthly reminders to self-monitor are efficient, cost-effective, and appropriate.

152. The current requirement for Utilities to submit quarterly advice letters reporting solar consumer complaints received is not necessary.

153. In D.22-12-056, the Commission stated that it intends to collect three years of data after implementation of the successor tariff and follow a similar evaluation process as conducted in the Lookback Study.

154. With respect to the net billing tariff evaluation, a budget amount greater than that of the 2019 Lookback Study is necessary given the passage of time, *i.e.*, inflation, and recognizing not only the complexity of the net billing tariff but also the various competing objectives required of the tariff.

155. A twenty-five percent increase is reasonable for the evaluation budget to address approximately five years of inflation and the increased complexity of the net billing tariff compared to the NEM 2.0 tariff that was reviewed in the Lookback Study.

156. The costs of the evaluation should be funded by the public purpose program surcharges, as had been the case for the Lookback Study, as indicated in D.18-09-044.

157. The Commission did not specify in D.22-12-056 the rate recovery mechanism for the evaluation.

158. The diverse set of questions in Table 11 is valuable and should be considered by the consultant hired to perform the evaluation.

159. Adopting a specific set of questions for the evaluation could limit the flexibility to revise the questions if faced with one or more of the following conditions: a) a reasonable question was not previously considered; b) a question was asked in a way that is not sufficiently neutral or is not sufficiently encompassing; and/or, c) a question did not include all available options.

160. Consultants working in the field of evaluation may have additional insight into evaluation research question development that the Commission or parties do not have.

161. In lieu of adopting a specific set of research questions, it is prudent to adopt a set of evaluation objectives to guide the evaluation question development.

162. The set of evaluation objectives, as presented in Table 12, address the directives of D.22-12-056 (focus on equity, affordability, grid benefits, and use of solar paired with storage) and the goals of the net billing tariff (considering impact on solar industry, improving reliability, reducing greenhouse gas emissions, encouraging electrification, and protecting consumers), and also align with party recommendations in Table 11 of this decision.

163. The party recommendations for metrics and data sources are valuable.

164. Differentiation in data collection and analysis of the evaluation should occur, to address such objectives as equity and affordability.

165. Data collection and analysis should consider differentiation between customer type (*e.g.*, residential) or customer location (*e.g.*, coastal).

166. The Commission previously determined that the contents of the evaluation will be considered in a future proceeding.

167. There is nothing in the record of this proceeding that requires the Commission to prohibit Energy Division from using the Response to Recommendation Process on an informal basis in the evaluation process.

168. Increased efficiency and transparency in the adopted evaluation implementation process should lead to an improved process.

169. Authorizing Energy Division to draft the RFP and the selection criteria should lead to a more efficient process.

170. Transparency is important to the success of the evaluation.

171. Improved transparency for the evaluation of the net billing tariff is achieved if the following occur: (1) the draft Research Plan is provided to the service list at least 10 days prior to a public workshop; (2) written informal comments on the draft proposed Research Plan are accepted by the consultant; and 3) the final proposed Research Plan is provided again to parties for an additional opportunity to comment.

172. Utilities currently collect many of the data types listed in Table 14.

173. The data collected will not be limited nor will the data be difficult to collect.

174. Requiring Utilities to begin to collect data by December 15, 2023 will minimize future risk that certain data were not tracked or are no longer accessible.

175. Additional transparency during the draft evaluation report of the net billing tariff evaluation will improve the overall process.

176. In D.22-12-056, the Commission stated that it will consider the contents of the evaluation and associated party comments in a future proceeding.

177. There are no remaining issues to address within the scope of this proceeding.

178. Pub. Util. Code §2827.10 states that the CARB Standards will be applicable to each fuel cell electrical generation resource.

179. Absent a retroactive clause in Pub. Util. Code §2827.10, it would not be fair to apply the new standards to NEMFC resources installed prior to enactment of the legislation.

180. The NEMFC tariff is a Commission regulated tariff and such compliance should be conducted through the Commission.

181. As Utilities are also regulated by the Commission and are responsible for ensuring safe and compliant interconnection, Utilities are the appropriate entities to conduct compliance of the CARB Standards.

182. Ratepayers should not be responsible for the costs of compliance with CARB Standards.

183. Pub. Util. Code §2827.10(e)(2) authorizes the Commission to allow Utilities to charge a fee to a fuel cell customer-generator to recover the costs “associated with providing interconnection inspection services.”

184. Approval of a fee to recover the costs associated with providing NEMFC resource interconnection inspection services will allow the Commission to meet the requirements of complying with the CARB Standards while protecting ratepayers from additional costs.

185. D.16-01-044 requires that the NEMFC tariff interconnection fee be based solely on the following costs incurred for NEMFC resources less than one MW in size: NEM Processing and Administrative Costs, Distribution Engineering Costs, and Metering Installation/Inspection and Commissioning Costs.

186. There are times when the ASME PTC 50-2002 performance test is not feasible.

187. An alternative calculation to the ASME PTC 50-2002 performance test would be using equipment specification sheets with the fuel input rate and net electrical power output and the useful heat rate for Combined Heat and Power systems.

188. The standard calculation should be the ASME PTC 50-2002 test results.

189. The request to extend the timeline for initial certification from three to six months will provide sufficient time for customers and utilities to prepare for the initial certification.

190. The Commission's intention in adopting a compliance regime is to provide an efficient framework that is successfully compliant with the statute.

191. Relying on the Self-Generation Incentive Program's requirements, which order monthly reporting, provides efficiency as compared to the daily reporting requested by PCF, which is excessive.

192. Infrequent reporting as proposed by PG&E could lead to long periods of noncompliant greenhouse gas emissions.

193. Utilities are best equipped to perform the role of evaluating a generator's technical ability to meet the NEMFC greenhouse gas emission standards.

194. The act of processing can be broader than simply collecting certifications.

195. Providing monthly data to the public on an annual basis will be useful to inform future policy.

196. Waste heat usage, when present, is a critical component of the emission rate.

197. PG&E's proposal for a lengthy deficiency cure period does not comply with the statute.

198. It is efficient and effective to require monthly reporting via a process similar to the reporting adopted for the Self-Generation Incentive Program.

199. Use of a six-month window to cure deficiencies, following the discovery of a lack of compliance, is the most efficient and least resource intensive process available.

200. The Staff Proposal does not currently include consequences for noncompliance of the CARB Standards.

201. There must be consequences for noncompliance of the CARB Standards.

202. CARB regulates how to account for greenhouse gas emissions reductions from carbon capture and storage.

203. CARB's Low Carbon Fuel Standard only allows sequestration underground.

204. In D.22-05-025, the Commission agreed that a more expansive requirement should be adopted that includes "use" in addition to capture and storage.

205. The Commission has no standards on carbon capture, use, and storage.

206. It is necessary to implement Carbon Capture, Use, and Storage through a new process added to the Staff Proposal.

207. The Staff Proposal does not address whether simultaneous multiple practices to calculate the effective emission rate is permitted.

208. A technology's effects are linked with its fuel.

209. The Self-Generation Incentive Program allows fuel cells if they use renewable fuel.

210. The Commission found it reasonable to use other Self-Generation Incentive Program requirements for NEMFC requirements.

211. It is reasonable to align Self-Generation Incentive Program requirements with NEMFC requirements renewable fuel blending requirements.

212. In D.20-12-022, the Commission found that developing a modified methodology based on the Greenhouse Gases, Regulated Emissions and Energy

Use in Transportation Model (GREET) pathway model used for CARB's Low Carbon Fuel Standards program is a reasonable approach to calculate carbon intensity of eligible renewable natural gas resources.

213. The Commission adopted use of a modified GREET model to determine carbon intensity scores in D.20-12-022.

214. The Commission directed Utilities to use, on an interim basis, a preliminary cost-effectiveness test that estimates the short-lived climate pollutant reduction and life cycle carbon emissions until the modified GREET model is completed and carbon intensity scores can be established.

215. In D.20-01-021, the Commission acknowledged that requirements for verification of source fuels had not kept pace with the Low Carbon Fuel Standard of Renewables Portfolio Standards.

216. The Commission updated the Self-Generation Incentive Program handbook to: (1) limit eligible directed renewable fuels to those produced within California and (2) strengthen renewable fuel documentation, verification, auditing, and enforcement requirements.

217. Self-Generation Incentive Program requirements are more stringent than the Staff Proposal requiring compliance with Pub. Util. Code §651(b)(3)(B).

218. Aligning the requirements for fuel cell customer generators with the more stringent requirements of the Self-Generation Incentive Program will improve future compliance.

219. Requiring customer-generators to fund fuel cell customer generators requirements will eliminate any ratepayer burden.

220.

221. Use of the Midwest Renewable Energy Tracking System (MRETS) was adopted in D.22-02-025.

222. Utilities were directed to require biomethane producers to track volumetric injections into pipelines through the MRETS or another platform identified in the Standard Biomethane Procurement Methodology workshop.

223. California does not participate in the MRETS for compliance markets.

224. Use of a contractual obligation may provide the best assurance of compliance until a tracking system is broadly used.

225. The amount of renewable natural gas the fuel cells are using should be accurately assessed.

226. Accurate assessment of the amount of renewable natural gas used by fuel cells requires utility-supplied renewable natural gas to be included in the calculation of the greenhouse gas emissions of fuel cell systems participating in the NEMFC tariff.

227. D.20-12-022 and D.22-02-025 determined that the rights to the renewable natural gas environmental attributes remain with the utility.

228. The renewable natural gas content amount injected into their pipeline should be easy for Utilities to verify since it should already be contained in their records.

229. SoCalGas submitted Advice Letter 6025, proposing the final elements of the Voluntary Renewable Natural Gas Tariff pilot program for nonresidential customers; no other gas utility is currently proposing to create such a program.

230. SoCalGas filed supplemental Advice Letter 6025-G-A to replace Advice Letter 6025.

231. Based on party comments, there are no other developments to consider with respect to consideration of the Staff Proposal.

232. Pursuant to Pub. Util. Code §2827.10, an eligible fuel cell customer-generator is required to use technology the Commission has determined will

achieve reductions of greenhouse gas emissions pursuant to subdivision (b), which states that CARB, in consultation with the Energy Commission, shall establish a schedule of annual greenhouse gas emissions reductions standards for a fuel cell electrical generation resource.

233. In Pub. Util. Code §2827.10, the Commission has a limited role, which does not include determining the greenhouse gas emissions standards.

234. The appropriate venue to relitigate CARB Standards is at CARB, not this proceeding.

235. Pub. Util. Code §2827.10, which created the current fuel cell tariff, does not allow the Commission to extend the tariff.

236. In establishing the requirements for fuel cell participation in net energy metering, the Legislature expressly sunset the NEMFC tariff at the end of 2023; this sunset language provides no alternative action for the Commission.

237. The focus of this proceeding is a revisit of the net energy metering tariff pursuant to D.16-01-044.

238. The requests for a new tariff for fuel cells or a distributed energy resources tariff go beyond the scope of this proceeding; i.e., a net energy metering revisit.

239. The scope of R.20-08-020 also includes issues that may arise related to current net energy metering tariffs and subtariffs, which include the net energy metering fuel cell tariff but not the topic of fuel cells in general.

240. The Commission addressed the implementation of the CARB Standard because it is a requirement of the existing NEMFC tariff.

241. The Commission originally developed the NEMFC tariff in accordance with legislative directives that are set to expire.

242. The Guiding Principles require that a successor to the net energy metering tariff should fairly consider all technologies that meet the definition of renewable electrical generation facility.

243. Creating a technology-specific tariff, such as a fuel cell tariff, does not align with D.21-02-007.

244. NEMFC tariffs must comply with Pub. Util. Code §2827.10, which states that a NEMFC resource “uses technology the Commission has determined will achieve reductions in emissions of greenhouse gases” pursuant to [CARB’s] “schedule of annual greenhouse gas emissions reduction standards.”

245. Granting Bloom Energy’s request to allow fuel cells that are able to operate using only renewable fuels and commit to using only renewable fuels would conflict with Pub. Util. Code §2827.10.

246. Every qualifying facility under federal law can avail itself of the Commission’s PURPA standard offer contract adopted in D.20-05-006.

247. The Commission has regulatory jurisdiction over Utilities as well as authority over the safe and reliable interconnection of customer-generators, and Utilities oversee interconnection application requests by customers to ensure safe and reliable interconnection.

248. The Commission has the responsibility to ensure that customers are protected.

249. Because customers will be negatively affected by contractor noncompliance, the Commission finds that it has a role in contractors’ compliance with Pub. Util. Code §769.2 and should, therefore, know whether the statute applies to a given Generation Facility.

250. Because the interconnection application submission is the first point of contact between the customer and Utility, this is the appropriate starting point to

determining whether a Generation Facility must comply with Pub. Util. Code §769.2.

251. To implement the statute, changes must be made to the interconnection application to confirm eligibility.

252. Fair notice was provided to contractors upon enactment of AB 2143, based on language stating the statute would be applicable to all eligible projects beginning after December 31, 2023.

253. If a customer-generator submits an interconnection application for an upgrade to increase the size of the system or to pair an energy storage device, this is considered a new project and is required to comply with Pub. Util. Code §769.2.

254. The Labor Commissioner and the CSLB should be responsible for educating contractors.

255. Requiring the Utilities update Pub. Util. Code §2827 and §2827.1 tariffs will provide a clear understanding of how Pub. Util. Code §769.2 changes these tariffs, which will provide transparency to contractors.

256. The Commission and the Utilities have a responsibility to ensure that customers are aware of the potential impacts of Pub. Util. Code §769.2.

257. The Commission currently has a consumer guide for residential solar customers; residential customers are required to acknowledge receipt of the guide as part of their interconnection application.

258. Keeping the requirements of Pub. Util. Code §769.2 separate from the larger residential consumer guide will limit confusion, as the requirements of Pub. Util. Code §769.2 are not applicable to a majority of residential customers.

259. Transparency requires that the net billing tariffs align with the requirements of Pub. Util. Code §769.2.

260. The Commission's intention in implementing Pub. Util. Code §769.2 is to adopt the most simple and cost-effective manner of implementation.

261. Adopting the current practice of including a thorough description of statutory requirements in the tariff, but not in the interconnection agreement, is a simple and cost-effective manner of implementation.

262. Pub. Util. Code §769.2 requires a contractor to submit to the Commission certified digital payroll records for projects.

263. The Commission requires a process to receive the payroll records for implementation of Pub. Util. Code §769.2.

264. It is within Commission jurisdiction to require submittal of the records by a contractor to be a requirement of access to the tariffs created pursuant to Pub. Util. Code §2827 and Pub. Util. Code §2827.1.

265. Pub. Util. Code §769.2 does not contain a penalty for not submitting the payroll records; the statute also does not prohibit the Commission from establishing such a penalty.

266. The penalty for noncompliance by the contractor is that the Generation Facility loses access to the tariff, resulting in a negative impact on the customer.

267. Requiring compliance with Pub. Util. Code § 769.2 in the net billing tariffs and establishing loss of access to the tariff as a penalty for noncompliance will protect future customers seeking access to the tariff.

268. Pub. Util. Code §769.2 requires contractors to submit copies of payroll records to the Commission.

269. Pub. Util. Code §769.2 provides enforcement of the statute by the Labor Commissioner, *i.e.*, the Department, through the issuance of a civil wage and penalty assessment.

270. Utilities' interconnection application search engines contain the relevant information to ascertain the renewable electrical generation facilities eligible for this review.

271. Providing the Department access to the interconnection application search engines is the most efficient manner to implement the enforcement of the payroll record submission requirement; similar access has been granted by the Commission in the past.

272. There is an imbalance of incentives for compliance with the statute.

273. Pub. Util. Code §769.2 limits the Commission from restoring access to noncompliant generation facilities by allowing time for contractors to issue corrective back-pay and taking other restorative actions related to prevailing wage violations.

274. The prevailing wage requirement can only be enforced through the Labor Commissioner or an administrative complaint or civil action; no action should be taken by the Commission or Utilities until the Department, or other identified agent, completes their assessment and makes its determination.

275. Because the Commission is not conducting the assessment, there is no need for a separate definition of willful violation of the prevailing wage requirement.

276. Adopting the Department's definition of willful violation provides contractors with the same treatment between the two agencies.

277. There are customers with non-export interconnection agreements, but their tariffs are separate.

278. If a net billing tariff customer loses access to the tariff due to a contractor's noncompliance with Pub. Util. Code §769.2, that does not change the safety of their system and the tariff change should not impact the interconnection

agreement; a loss of any net billing tariff does not require further engineering review or new equipment to become a non-export facility.

279. There is a process of information sharing that exists between the Department and CSLB.

280. There is no known rule in the Labor Code requiring the Department to share a finding of a prevailing wage violation with the Commission or Utilities.

281. Utilities will need to know about prevailing wage violations to ensure customers (with Generation Facilities no longer eligible for the net energy metering or net billing tariffs) are placed on alternate tariffs and, beginning on January 1, 2025, ensure contractors who previously have been found in violation of the prevailing wage rules will not be permitted to apply to interconnect facilities with access to the applicable tariffs in the future.

282. It is reasonable to allow tariff access to be restored if a willful wage violation is reversed or nullified by the determining body and the generation account holder or customer/property owner provides documentation to the utility.

283. A customer should continue to realize some bill savings for their Generation Facility upon losing access to the net energy metering or net billing tariff.

284. The Commission established an avoided cost price for as-available deliveries of energy in D.20-05-006.

285. All issues in the scope of this proceeding have been addressed.

Conclusions of Law

1. The Commission should not delay a determination on the VNEM tariff or the NEMA subtariff in this proceeding.

2. The Commission should require Utilities to improve data collection on the customer composition of the VNEM tariff and its successor tariff to ensure accuracy.
3. The Commission should not grant the request by CALSSA to allow a generating account to take over a benefitting account holder's CARE benefit.
4. Pub. Util. Code §780.5 requires that after July 1, 1982, all electric and gas metering in buildings must be individually metered.
5. The Commission should adopt a VNEM successor tariff that does not presume onsite self-consumption.
6. The Commission should not retain the current VNEM tariff.
7. The Commission should rely on findings from the Lookback Study review of the NEM 2.0 tariff in its review of the VNEM tariff.
8. The DER Shared Tariff conflicts with the intention of Pub. Util. Code §780.5
9. The Commission should not adopt the proposed DER Shared Tariff as a successor to the VNEM tariff.
10. The Commission should adopt the use of the Avoided Cost Calculator values to determine retail export compensation rates for the successor VNEM tariff.'
11. The Commission should adopt 15-minute unit-level netting of consumption and generation for residential virtual net billing customers.
12. The Commission should not adopt Utilities' recommendation in its virtual net billing tariff proposal to allow the export compensation credit to offset any portion of the bill.

13. The Commission should retain the size to load and metering requirements as established in the existing VNEM tariff for adoption in the successor VNEM tariff.

14. The Commission should continue in the successor VNEM tariff, the net surplus compensation practice adopted in D.11-06-016 without adjustment.

15. The Commission should continue the net surplus compensation treatment in the VNEM successor tariff of tracking by benefiting account instead of tracking system wide.

16. The Commission should allow nonresidential benefiting account holders in the successor VNEM tariff to take service on any currently available rate schedule.

17. The Commission should require residential customers on the virtual net billing tariff to take service on any eligible time-of-use rate.

18. The Commission should allow successor VNEM tariff customers to participate in demand response or emergency reliability programs, with the caveat for benefiting account holders that incentives are based on the individual customer's load and do not include excess generation exported to the grid during a demand response event.

19. The Commission should use the ACC Plus as a glide path in the successor VNEM tariff.

20. The Commission should not adopt an ACC Plus adder for nonresidential customers participating in the successor VNEM tariff.

21. The Commission should adopt the same ACC Plus adders used in the net billing tariff for residential virtual net billing tariff customers.

22. The Commission should tie the nine-year legacy period of the successor VNEM tariff to the Generation Facility associated with the property, rather than the original property owner.

23. The Commission should allow a customer currently taking service under a VNEM tariff or its successor to add a storage device without altering a customer's tariff status.

24. For the virtual net billing tariff, the Commission should require Utilities to permit operation of the Generation Facilities, including storage devices, in isolation, in order to serve onsite loads during planned or emergency outages.

25. Pub. Util. Code §2827.1(a) states that Generation Facilities shall have the same meanings as defined in Pub. Util. Code §2827, which defines the term as a facility that generates electricity from a renewable source listed in paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code, which does not include stand-alone batteries.

26. The Commission should not allow grid charging of onsite storage (batteries) in the successor VNEM tariff at this time.

27. The Commission should require Utilities to lead a process to find a consensus approach to allow a virtual net billing tariff customer to charge their storage device from the grid prior to a planned Public Safety Power Shutoff for the purpose of resiliency.

28. The Commission should require Utilities to provide the Energy Division and the service list a bi-annual report on tracking the progress of improvements to the processes causing delays in VNEM tariff customers receiving bill credits after permission to operate is granted.

29. The Commission should allow Utilities to submit an annual advice letter requesting inflation-related adjustments to fees for the VNEM tariff and its successor.

30. The Commission should continue the SOMAH tariff as is until its sunset date as provided in Pub. Util. Code §2870.

31. The Commission should authorize Utilities to track the implementation costs, including any marketing, education, and outreach efforts, for the virtual net billing tariff.

32. The Commission should continue the MASH tariff as is but sunset it alongside SOMAH.

33. The directive in Section 2827(c)(1), creating an end date for the applicability of the section, applies to the NEMA subtariff.

34. The Commission determined in Resolution E-4854 that small investor-owned utilities are not obligated to continue offering the NEMA subtariff once they reach their net energy metering caps.

35. The Commission should expand to all electric utilities the directive that the small investor-owned utilities are not obligated to continue offering the NEMA subtariff once they reach their [net energy metering] caps.

36. The Commission should rely on the findings of the Lookback Study's review of the NEM 2.0 tariff in its review of the NEMA subtariff.

37. The Commission should adopt an Aggregation subtariff that mirrors the net billing tariff.

38. Offering a NEMA subtariff is not a legal requirement of the Commission nor Utilities.

39. With the exception of net surplus compensation, the Commission should maintain Section 2827(h) in the new Aggregation subtariff as these provisions

help ensure that the benefits of the tariff to all customers are approximately equal to its costs.

40. The Commission should adopt net surplus compensation as calculated under the net billing tariff in the Aggregation subtariff.

41. The Commission should adopt, in the Aggregation subtariff, the net surplus compensation practice adopted in d.11-06-016 without adjustment.

42. Decision 22-12-056, Finding of Fact 20 should be revised as follows: The Lookback Study finds that the commercial, industrial, and agricultural customer segments of the NEM 2.0 tariff generally pass the TRC test and nonresidential customers pay rates that fully cover their costs of services.

43. The Commission should grant the request of the Utilities to track and record the costs of activities to support the virtual net billing tariff and the Aggregation subtariff.

44. The Commission should not adopt Utilities' proposal to establish an interagency task force to resolve the problem that the Watch List does not capture violators of CSLB and DFPI regulations.

45. The Commission should not adopt Utilities' recommendation to establish a task force to resolve the fact that the Watch List primarily identifies a list of providers committing administrative errors.

46. The Commission should adopt the revisions to the Watch List process.

47. The Commission should limit the amount of time that providers spend on the Watch List for violating the Commission consumer protection rules.

48. The Commission should delay inclusion of the bill savings estimate method approved in D.20-08-001 and authorize Energy Division to perform a review of inputs and assumptions.

49. The Commission should authorize Energy Division to finalize the CSLB Disclosure Document for publication by CSLB.

50. The Commission should authorize Energy Division to develop a Commission Compliance Checklist that identifies the requirements for an interconnection application to be compliant for purposes of the Watch List and allow for informal party comment on a draft of the Checklist

51. The Commission should require compliance with directives of D.20-08-001, as modified herein, and D.21-06-026.

52. The Commission should not adopt proposals to require or authorize Utilities to deny an application for noncompliance or report the results of enhanced pre-approval reviews.

53. The Commission should ensure that current endeavors to implement the net billing tariff should include efforts to improve customer understanding of bills.

54. The Commission should require Utilities to collaborate with all stakeholders including community choice aggregators to ensure bundled and unbundled customer bill presentment needs are addressed with respect to net energy metering, net billing, and related tariffs.

55. The Commission should not require uniformity of bills improvements.

56. The Commission should authorize Utilities to track expenses for changes to customers' bill on the Utilities Net Billing Tariff memorandum accounts.

57. The Commission should not require a workshop on solar misinformation and false advertising.

58. The Commission should not require Utilities to alert customers when solar systems are not performing correctly but, instead, provide a monthly reminder for customers to monitor their systems.

59. The Commission should relieve the Utilities of the current requirement to submit quarterly advice letters reporting solar consumer complaints.

60. The Commission should not consider the Cal Advocates' proposal for annual evaluations.

61. The Commission should authorize a maximum budget of \$2.5 million budget for the evaluation of the net billing tariff and the related tariffs and subtariffs.

62. The Commission should identify a source of funding for the net billing tariff evaluation and identify that source as the public purpose program surcharges.

63. The Commission should direct the consultants hired to perform the evaluation to develop the specific questions to be asked in the evaluation, but with consideration of the set of proposed research questions contained in Table 10, as well as others contained in the record of this proceeding, and with the input of Energy Division and parties.

64. The Commission should adopt the set of evaluation objectives in Table 11 to guide the evaluation development.

65. The Commission should direct the consultants hired to perform the evaluation to consider the objectives, metrics, and data needs contained in Table 13 and Table 14 and elsewhere in the record of this proceeding when developing their research plan.

66. The Commission should direct that the party recommendations for metrics and data sources be considered by the consultant hired to perform the evaluation, when developing the metrics and the data needs for the evaluation.

67. The Commission should include differentiation in the evaluation data

68. The Commission should not consider in this decision contentions regarding the review of the previous Lookback Study and implications for the review of the net billing tariff evaluation.

69. The Commission should not consider, at this time, the adoption of the Response to Recommendation Process.

70. The Commission should adopt the previous evaluation implementation process, as modified herein.

71. The Commission should not establish a working group to finalize the draft research plan for the net billing tariff evaluation but adopt a transparent process allowing for multiple opportunities for public comment and a public workshop.

72. The Commission should require Utilities to begin data collection on December 15, 2023.

73. The Commission should adopt a draft evaluation report step for the net billing tariff evaluation that allows for public review and written comment, as well as a public workshop.

74. The Commission should initiate an Order Instituting Rulemaking (Order) to consider the findings of the net billing tariff evaluation and the final evaluation report should be attached to the Order.

75. The Commission should amend the Staff Proposal to clarify that the CARB Standards will be applicable only to those NEMFC resources that received permission to operate after the effective date of AB 1637.

76. The Commission should amend the Staff Proposal to require: (1) a revised interconnection application fee to reflect the additional cost in ensuring initial compliance with the CARB Standards and (2) an annual documentation fee reflecting the costs to administer the annual collection and processing of certifications.

77. The Commission should amend the Staff Proposal to allow for calculations based on equipment specification sheets, as an alternative only when the ASME PTC 50-2002 test is not feasible.

78. The Commission should amend the Staff Proposal to extend the initial certification implementation timeline from three months to six months.

79. The Commission should amend the Staff Proposal to reflect that documentation must comply with applicable Self-Generation Incentive Program handbook requirements including, but not limited to, the requirement that customer-generators contract with a Performance Data Provider and submit a Minimum Operating Efficiency Worksheet, a Directed Renewable Fuel Verification Form, supporting documentation, and monthly data.

80. The Commission should amend the Staff Proposal to include a six-month window in which to come into compliance, after which the interconnection agreement will be terminated, and the project will be served under a Rule 21 non-export agreement.

81. The Commission should amend the Staff Proposal to align the verification requirements with those of the Self-Generation Incentive Program.

82. The Commission should amend the Staff Proposal to require customer-generator certification of any waste heat usage provided in the calculation of the emission rate.

83. The Commission should amend the Staff Proposal to add a new section called Carbon Capture, Use, and Storage, which will provide a disclaimer stating that if a fuel cell customer notifies a utility that it wants to perform carbon capture, use, and storage, then within 12 months of such notice, the relevant utility shall propose rules in compliance with CARB's carbon capture and storage protocol.

84. The Commission should amend the Staff Proposal to explicitly allow for simultaneous multiple practices to calculate the effective emission rate.

85. The Commission should amend the Staff Proposal to instruct Utilities on how to account for reduced emissions from biomethane using the preliminary method adopted in D.22-02-025, until the modified GREET model is approved.

86. The Commission should amend the Staff Proposal to align the requirements for directed biogas eligibility with those of the Self-Generation Incentive Program.

87. The Commission should amend the Staff Proposal to require random no-warning spot-checks and 30-day warnings of directed renewable fuel sources, as practiced in the Self-Generation Incentive Program, with cost recovery by customer-generators through the annual documentation fee.

88. The Commission should amend the Staff Proposal to require documentation of the seller's contractual obligation to provide all environmental attributes to the buyer, until a tracking system is broadly used.

89. The Commission should amend the Staff Proposal to confirm that utility-supplied renewable natural gas is eligible for emissions reduction, if compliant with Pub. Util. Code §651(b)(3)(B) and Self-Generation Incentive Program requirements for directed biofuel, but the environmental attributes remain with the utility.

90. The Commission should amend the Staff Proposal to reflect that SoCalGas has proposed the final elements of the Voluntary Renewable Natural Gas Tariff pilot and that no other gas utility is proposing to create such a pilot or program.

91. The Commission should not grant the request of Bloom Energy to request CARB to reassess its greenhouse gas emissions standard calculation, to replace

the current tariff with a new tariff, or consider an interim requirement that fuel cell systems must have the ability to consume fuels.

92. Qualifying facilities under federal law have the ability to offer energy and capacity to a utility and pursuant to Public Utility Regulatory Policies Act of 1978, must be appropriately compensated.

93. D.20-05-006 requires Utilities to compensate qualifying facilities of 20 megawatts or less in accordance with Public Utility Regulatory Policies Act of 1978.

94. The Commission should include a step during the interconnection application process to determine whether a Generation Facility must comply with Pub. Util. Code §769.2.

95. Pub. Util. Code §769.2 is only applicable to projects, including upgrades, with an interconnection application date (as determined above) after December 31, 2023.

96. The Commission should require Utilities to create a Prevailing Wage Disclosure Form and that the eligible customer acknowledge receipt of this disclosure as part of the interconnection application.

97. The Commission should direct Utilities to establish a requirement in the net billing tariffs that a contractor shall comply with the payroll submission requirement in Pub. Util. Code §769.2, that noncompliance will result in the contractor losing access to being named as a contractor on the interconnection application for a Generation Facility accessing the tariff, and that the application process will be paused until any prior reporting requirement is met.

98. The Commission should require Utilities to provide the Department of Industrial Relations (Department) with access to the interconnection application search engines.

99. The Commission should adopt the Department's definition of willful violation.

100. The Commission should prohibit Utilities from requiring the addition of a non-export relay or further engineering review in order to become a non-export facility upon loss of access to the any tariff established pursuant to Public Utilities Code Section 22827 or Section 2827..

101. The Commission should require Utilities to enter into or amend existing confidentiality agreements with the Department to receive notice of willful wage violations.

102. The Commission should direct Utilities to deny interconnection applications submitted by a contractor previously found to have violated the prevailing wage requirement.

103. The Commission should direct Utilities to update the applicable tariffs to provide the affected customer advanced notification of the lost tariff access, as determined by the Department.

104. PURPA generally requires that a utility must take the energy of a qualifying facility and pay the avoided cost (as defined by PURPA) for that purchase, meaning the incremental cost to the utility of alternative electric energy.

105. The Commission should require Utilities to develop a PURPA compliant compensated export tariff using the pricing established in D.20-05-006 for a generation facility associated with a Pub. Util. Code §769.2 violation.

106. All rulings made by the Administrative Law Judge and assigned Commissioner in this proceeding should be affirmed and all motions not ruled should be deemed denied.

107. R.20-08-020 should be closed.

O R D E R

IT IS ORDERED that:

1. The virtual net billing tariff is adopted. For nonresidential benefiting account holders, consumption and generation will be calculated based on no netting of consumption. For residential benefiting account holders on the tariff, consumption and generation will be calculated on 15-minute unit-level netting. For both residential and nonresidential benefiting account holders, net surplus generation will be trued up on an annual basis for each connected generating and benefiting account. Bill credits will be allocated to benefiting accounts in the proportion specified in the credit allocation form. Bill credits will be applicable toward import charges from any time period within the monthly billing period and will carry forward within the annual billing period. Virtual net billing generating account holders shall comply with Electric Rule No.21 Sections L.2 – L4 and Section L.7 for interconnecting to the electrical grid. Interconnection fees apply and remain as identified in Electric Rule 21. Virtual net billing customers must pay all incurred charges monthly. The virtual net bill tariff shall contain the following elements:

- (a) Retail Export Compensation Rates based on hourly Avoided Cost Calculator values averaged across days in a month, differentiated by weekdays and weekends/holidays as adopted for the net billing tariff in D.22-12-056. For the first five years of the successor tariff, *i.e.*, the glide path transition time, retail export compensation rates for residential and nonresidential virtual net billing tariff customers will be based on a nine-year schedule of values for each hour from the most recent Avoided Cost Calculator, adopted as of January 1 of the calendar year of

the renewable electrical generation facility initial interconnection date. Following the locked in period, retail export compensation rates will be based on averaged hourly avoided cost values from the most recent Avoided Cost Calculator, adopted as of January 1. Tariff customers enrolling after the five-year glide path will not receive a lock-in period for Avoided Cost Calculator values. For residential benefiting account holders, this only applies to their virtual net generation from each 15-minute interval. For customers enrolled in the California Alternate Rates for Energy (CARE) or Family Electric Rates Assistance (FERA) programs, the CARE and FERA discount shall not be applied to the retail export compensation rate including the ACC Plus Adder.

- (b) An Avoided Cost Calculator Plus (ACC Plus) adder, based on a cents per kilowatt-hour exported rate. The ACC Plus will be available to virtual net billing tariff residential benefiting account customers during the first five years of the successor tariff, as a glide path. The adopted ACC Plus adders, as indicated in the table below, will remain constant for a customer for nine years from the renewable electrical generation facility's interconnection date. The adder is specific to each qualifying benefiting account.

ACC Plus Adders for Residential Benefiting Account Holders Participating in the Virtual Net Billing Tariff		
Utility	Low-Income Tariff Enrollees	Non-Low-Income Tariff Enrollees
PG&E	\$0.090/kWh	\$0.022/kWh
SCE	\$0.093/kWh	\$0.040/kWh
SDG&E	\$0.000/kWh	\$0.000/kWh

The adder will decrease by 20 percent annually for newly enrolled tariff customers, as measured by the first-year adder rate until the adder reaches zero. The adder will be a discrete line on the customer’s utility bill, will apply to all charges, and will apply to future bills until the credit is used. Funding for the adder will be provided by all ratepayers through the Public Purpose Program charge.

For purposes of the virtual net billing tariff, low-income residential customers must meet the definition of low-income adopted in Decision 22-12-056, Ordering Paragraph 1(b).

- (c) Energy Consumption/Retail Import Rates will be different for residential and nonresidential customers. Residential virtual net billing customers shall take service on any eligible time-of-use rates. Nonresidential virtual net billing customers may take service on any currently available rate schedule.
- (d) Non-bypassable charges. The four charges are the public purpose program charge, nuclear decommissioning charge, competition transition charge, and the Wildfire Fund Non-bypassable Charge.

- (e) Minimum bill or fixed charges. Virtual net billing tariff customers are subject to any minimum bill or fixed charge that is contained in a customer's applicable rate.
- (f) True-up Dates. Each generating account customer or renewable electrical generation facility owner taking service under the virtual net billing tariff may make a one-time request that their annual true-up date be changed going forward.
- (g) Legacy Period. The terms of the virtual net billing tariff will be available to virtual net billing tariff customers for a period of nine years. The legacy period is linked to the system. If the renewable electrical generation facility owner changes, the subsequent renewable electrical generation facility owner continues the original legacy period. Likewise, if tenancy changes at a participating property, the new benefiting account holder continues the legacy period.
- (h) Storage Devices. If a current virtual net billing renewable electrical generation facility (Generation Facility) owner adds a storage device, there is no impact to the Generation Facility's current tariff status, including the legacy period.
- (i) Planned or Emergency Outages. Operation of the renewable electrical generation facility, including storage, in isolation, is permitted to serve onsite loads during planned or emergency outages. Pending advice letter approval, storage may charge from the grid in advance of a planned or emergency outage.
- (j) Participation in Demand Response Programs. All virtual net billing customers, including the generation account holder, are

permitted to participate in demand response or emergency reliability programs for which the customer is otherwise eligible.

2. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall provide 15-minute data to residential benefiting account holders enrolled in the virtual net billing tariff.

3. No later than April 30, 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall submit a joint Tier 1 advice letter proposing improvements in defining the composition of customers on the virtual net billing tariff and virtual net energy metering tariff. Utilities shall confer with the Commission's Energy Division on the Utilities' proposed improvements.

4. No later than March 31, 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall host a public workshop to discuss technical solutions to allowing storage in a virtual net billing or virtual net energy metering arrangement to charge from the grid prior to a Public Safety Power Shutoff or other planned outage. No later than 90 days after the public workshop, Utilities shall submit a Tier 2 advice letter proposing language to update both the virtual net billing tariff and the virtual net energy metering tariff to permit grid charging prior to planned outages.

5. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall submit a report to track progress on the improvements to processes causing delays to customers on the virtual net energy metering tariff or virtual net billing tariff receiving bill credits after permission to operate is granted. Utilities shall meet with the Commission's Energy Division to develop the contents of the report. Submittal of

the report shall be included in the annual Net Energy Metering and Net Billing Tariff Annual Reporting Advice Letter as required by Decision 22-12-056.

6. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company are each authorized to individually submit, on an annual basis, one single Tier 2 advice letter requesting inflation adjustments to fees related to the virtual net energy metering tariff and the virtual net billing tariff. Inflation rates will be based on the California Department of Finance's California Consumer Price Index current weighted average from the past 12 months.

7. The Multifamily Affordable Solar Housing and Solar on Multifamily Affordable Housing tariffs will remain open with no changes and continue accepting applications for new eligible enrollees until the sunset date pursuant to Public Utilities Code Section 2870 and in conformance with Rulemaking 14-07-002 or a successor proceeding.

8. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall modify the Multifamily Affordable Solar Housing and Solar on Multifamily Affordable Housing tariffs as follows:

- (a) Change in Tenancy. When a change in tenancy occurs, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall automatically add the new utility customer as a benefiting account customer.
- (b) Vacant Units. Residential or nonresidential vacant units may have a zero percent allocation from the renewable electrical generation facility (. . .)
- (c) Storage Devices. If a current virtual net billing renewable electrical generation facility (Generation Facility) owner adds a

storage device, there is no impact to the Generation Facility's current tariff status, including the legacy period.

(d) Planned or Emergency Outages. Operation of the renewable electrical generation facility, including storage, in isolation from the grid, is permitted to serve onsite loads during planned or emergency outages. Pending advice letter approval, storage may charge from the grid in advance of a planned or emergency outage.

(e) Participation in Demand Response Programs. Tariff customers, including generation account holders, are permitted to participate in demand response or emergency reliability programs for which the customer is otherwise eligible.

9. The existing virtual net energy metering tariff is revised as follows:

(a) Change in Tenancy. When a change in tenancy occurs, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall automatically add the new utility customer as a benefiting account customer.

(b) Vacant Units. Residential or nonresidential vacant units may have a zero percent allocation from the renewable electrical generation facility.

(c) Storage Devices. If a current virtual net billing renewable electrical generation facility (Generation Facility) owner adds a storage device, there is no impact to the Generation Facility's current tariff status, including the legacy period.

(d) Planned or Emergency Outages. Operation of the renewable electrical generation facility, including storage, in isolation from

the grid, is permitted to serve onsite loads during planned or emergency outages. Pending advice letter approval, storage may charge from the grid in advance of a planned or emergency outage.

- (e) Participation in Demand Response Programs. Benefiting account customers are permitted to participate in demand response or emergency reliability programs for which the customer is otherwise eligible. Incentives are based on the individual customer's load and do not include excess generation exported to the grid during a demand response event.

10. No later than 120 days from the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall each submit a Tier 1 advice letter updating the following existing tariffs to align with this decision: Virtual Net Energy Metering, Multifamily Affordable Solar Housing and Solar on Multifamily Affordable Housing tariffs.

11. An aggregation net billing subtariff is adopted. Consumption and generation will be calculated based on no netting of consumption. Net surplus compensation will be provided and trued-up on an annual basis. Bill credits will be applicable toward import charges from any time-of-use time period. Aggregation net billing customers shall comply with Electric Rule No.21 Sections L.2 - L4 and Section L.7 for interconnecting to the electrical grid. Interconnection fees apply and remain as identified in Electric Rule 21. Aggregation net billing customers must pay all incurred charges monthly. The aggregation net billing subtariff shall contain the following elements:

- (a) Retail Export Compensation Rates based on hourly Avoided Cost Calculator values averaged across days in a month, differentiated by weekdays and weekends/holidays, as adopted for the net billing tariff in D.22-12-056. For the first five years of the successor tariff, *i.e.*, the glide path transition time, retail export compensation rates for residential and nonresidential net billing tariff customers will be based on a nine-year schedule of values for each hour from the most recent Avoided Cost Calculator, adopted as of January 1 of the calendar year of the customer's interconnection date. Following the locked in period, retail export compensation rates will be based on averaged hourly avoided cost values from the most recent Avoided Cost Calculator, adopted as of January 1. Subtariff customers enrolling after the five-year glide path will not receive a lock-in period for Avoided Cost Calculator values.
- (b) An Avoided Cost Calculator Plus (ACC Plus) adder, based on a cents per kilowatt-hour exported rate. The ACC Plus will be available to residential aggregation net billing subtariff customers during the first five years of the successor tariff, as a glide path. The adopted ACC Plus adders, as indicated in the table below, will remain constant for a customer for nine years from the customer's interconnection date.

Adopted Avoided Cost Calculator Plus Adders for Aggregation Net Billing Subtariff Customers			
Customer Segment	PG&E	SDG&E	SCE
Residential	\$0.022/kWh	\$0/kWh	\$0.040 kWh
Low-Income	\$0.090/kWh	\$0/kWh	\$0.093/kWh
Nonresidential	\$0/kWh	\$0/kWh	\$0/kWh

- (c) The adder will decrease by 20 percent each calendar year, for newly enrolled tariff customers, as measured by the first-year (2024) adder rate until the adder reaches zero. The adder will be a discrete line on the customer’s utility bill, will apply to all charges, and will apply to future bills until the credit is used. Funding for the adder will be provided by all ratepayers through the Public Purpose Program charge.
- (d) Highly differentiated time-of-use rates for residential customers are currently eligible in the net billing tariff. Additional eligible rates may be added by utility request through submittal of a Tier 3 advice letter or through its general rate case Phase 2 or rate design window. All aggregation net billing subtariff residential customers are required to enroll in these eligible rates, or they may choose to enroll in critical peak pricing or peak day pricing rates.
- (e) For customers enrolled in the California Alternate Rates for Energy (CARE) and Family Electric Rates Assistance (FERA) programs, the CARE and FERA discount shall not be applied to the retail export compensation rate.

- (f) Non-bypassable charges. The four charges are the public purpose program charge, nuclear decommissioning charge, competition transition charge, and the Wildfire Fund Non-Bypassable Charge.
- (g) Minimum bill or fixed charges. Aggregation net billing subtariff customers are subject to any minimum bill or fixed charge that is contained in a customer's applicable rate.
- (h) Credit and Debit Provisions, Crediting Methodology, and Annual True-Up will remain the same as the Net Energy Metering Aggregation subtariff. Credits and debits will be provided in dollars rather than in kilowatt-hours.
- (i) Legacy Period. The terms of the aggregation net billing subtariff will be available to aggregation net billing subtariff customers for a period of nine years. The legacy period is linked to the renewable electrical generation facility (Generation Facility) owner. If the Generation Facility owner changes, the subsequent Generation Facility owner does not have a legacy period. The exception is when the subsequent Generation Facility owner is or was the legal partner (*e.g.*, spouse or domestic partner in the case of residential customers or, in the case of nonresidential customers, the account-holding entity continues to be majority controlled by the same underlying individuals or entities from the time the legacy system was installed) of the original Generation Facility owner. For this latter group, the legacy period maintains its original interconnection date and length of nine years.

- (j) If a current aggregation net billing customer adds a storage device, there will be no impact to the customer's current subtariff status, including the legacy period onsite.
- (k) Net surplus generation will be compensated at the current net surplus compensation rates.

12. Implementation of the virtual net billing tariff and the aggregation subtariff adopted in this decision shall occur in the following steps:

- (a) Step 0: The Sunset Period begins with adoption of this decision. Customers submitting a completed interconnection application prior to the end of the Sunset Period will be considered applicable for the current Virtual Net Energy Metering tariff or Net Energy Metering Aggregation tariff.
- (b) Step 1a: Within 90 days of the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall each submit two separate Tier 2 advice letters to provide the details of the virtual net billing tariff and the aggregation net billing subtariff, as adopted in this decision. Utilities shall coordinate before submitting the advice letters to ensure language uniformity to the extent possible. The individual advice letters shall summarize Utilities' interpretation of how the successor tariffs will be structured and include indicative levels of price components and containing rate factors based on the applicable revenue and associated tariff sheets. Utilities shall ensure language uniformity.

(c) Step 1b. No later than 90 days after the effective date of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company will implement a tariff sunset on the VNEM tariff and the NEMA subtariff, after which time, no additional customers will be permitted to take service under the VNEM tariff or the NEMA subtariff. Customers with an interconnection application date after this Sunset Date will take service and be billed on the VNEM tariff or NEMA subtariff on an interim basis and transition to the virtual net billing tariff or aggregation virtual net billing subtariff, once these are operational. Neither the VNEM tariff nor the NEMA subtariff legacy period are applicable in this case. The interconnection application date for residential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed contract, a single-line diagram, a complete California Contractors State License Board Solar Energy System Disclosure Document (if applicable), a signed California Solar Consumer Protection Guide (if applicable), a Public Utilities Code Section 739.2 Prevailing Wage Disclosure Form (if applicable), and an oversizing attestation (if applicable). The interconnection application date for nonresidential customers is defined as the submission date of an application that is free of major deficiencies and includes a complete application, a signed Authorization to Act on a Customer's Behalf, the selection of a single-line diagram, a Public Utilities

Code Section 739.2 Prevailing Wage Disclosure Form (if applicable), and an oversizing attestation (if applicable.) Joint Utilities are granted the discretion to give VNEM tariff or NEMA subtariff eligibility to a customer if a delay in meeting the Sunset Date is caused by the utility. Joint Utilities shall work collaboratively to address challenging situations in deeming applications complete.

- (d) Step 2: No later than March 31, 2025, San Diego Gas & Electric Company and Southern California Edison Company shall complete alignment of related necessary billing systems and transition to full implementation of the virtual net billing tariff and aggregation net billing subtariff. No later than June 30, 2025, Pacific Gas and Electric Company shall complete alignment of related necessary billing systems and transition to full implementation of the virtual net billing tariff and aggregation net billing subtariff.
- (e) Step 3: Three years from the application submission, all customers seeking to interconnect to the VNEM tariff or NEMA subtariff shall submit final building permit sign off and electrical clearing by the authority having jurisdiction. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company have the discretion to apply VNEM tariff or NEMA subtariff eligibility to customers who fail to meet this deadline due to utility-caused delays.
- (f) Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company are

authorized to record costs for implementation of and marketing, education, and outreach for the virtual net bill tariff and the Aggregation subtariff in the Memorandum Account established by Ordering Paragraph 12(a) of Decision 22-12-056.

A revised Watch List process is adopted with the following changes:

- (g) Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company should review current, active interconnection applications.
- (h) Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall each manually review a total of 100 randomly selected approved interconnection applications every six months. This is referred to as the spot audits.
- (i) The removal process from Decision 21-06-026 is deemed obsolete.
- (j) Providers with deficient applications will be placed on an internal Enhanced Review List to be established, maintained, and updated by the Commission's Energy Division..
- (k) The Commission's Energy Division will notify Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company of providers placement on the Enhanced Review List.
- (l) Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company will conduct pre-approval reviews of the next ten applications received from providers on the Enhanced Review List using the

Commission Compliance Checklist. This review shall include a manual review of all documents submitted as part of the ten applications.

- (m) If an additional application from a provider on the Enhanced Review List is found to be deficient, the utility will return the application to the provider who will have an opportunity to remedy the application. The utility shall inform the solar provider that failure to remedy the application will result in placement on the Watch List; this replaces the notice requirement in Decision 21-06-026. Failure to remedy the application will result in placement on the Watch List. Placement on the Watch List will be a maximum of three months for violation of the Commission's regulations and six months for violation of the Contractors State License Board or Department of Financial Protection and Innovation regulations.
- (n) Providers must comply with the items on the Commission Compliance Checklist to be developed by the Commission's Energy Division but will include compliance with Decision 20-08-001 and Decision 21-06-026 and, when prepared by the Energy Division, a customer bill savings estimate.

13. The Energy Division is authorized to redraft the standardized inputs and assumptions for the required savings estimate (as provided in the Contractors State License Board Supplemental Disclosure Form) and present a draft in a public workshop. The final set of inputs and assumptions will be provided through a draft resolution no later than July 1, 2024. Following Commission adoption of the inputs and assumptions resolution, Energy Division is

authorized to finalize the Contractors State License Board Disclosure Document for publication by the Contractors State License Board.

14. The Energy Division is authorized to develop a Commission Compliance Checklist to identify the requirements for an interconnection application to be compliant for purposes of the Watch List. The Checklist will be used to review interconnection applications from the spot audits and the first 10 applications submitted to utilities by solar providers placed on the internal Enhanced Review List and, if necessary, on the public Watch List. Energy Division is authorized to provide a draft of the Checklist to the service list and other stakeholder for informal comments.

15. Within 30 days of the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall consult with the Commission's Energy Division to identify and address cosmetic changes to the net billing tariff bills that can improve customer understanding and not delay implementation of the net billing tariff.

16. No later than 120 days after implementation of the residential net billing tariff, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall work collaboratively with parties, including community choice aggregators, to begin to develop recommendations for long-term improvements to bundled and unbundled net energy metering and net billing tariff customer billpresentment. Utilities are directed to host a series of workshops and, no later than one year from the implementation of the net billing tariff, report on the recommendations from these workshop through a letter to the Director of Energy Division. The recommendations are not required to be standardized across all utilities. Utilities

are authorized to recovery costs for these improvements through Utilities' net billing memorandum accounts.

17. Beginning no later than 90 days after the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall remind net billing tariff and related subtariffs customers the importance of self-monitoring of renewable energy generation facilities. Utilities shall use at least one existing monthly communication to provide this reminder.

18. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company are relieved of the requirement in Ordering Paragraph 7 of Decision 18-09-044 to submit quarterly advice letters reporting solar consumer complaints received.

19. Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) (together, Utilities) are authorized a budget not to exceed \$2.5 million for measurement and evaluation of the net billing tariff, virtual net billing tariff and aggregation subtariff. Utilities shall distribute funding as follows: PG&E, 40 percent; SDG&E, 20 percent, and SCE, 40 percent. Utilities shall continue to track the costs through the memorandum accounts previously authorized in Decision 22-12-056, and recover those costs through the public purpose program surcharges.

20. The Commission's Energy Division is authorized to develop and issue a Request for Proposal to hire a consultant expert in evaluation methods and processes to conduct an evaluation of the net billing tariff.

21. No later than 30 days after the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall submit a Tier 1 Advice Letter proposing data types for the

evaluation of the net billing and related tariffs approved in Ordering Paragraph 19. The advice letter shall include a description of how each data use will be collected and the proposed data collection protocol for the utility and shall include, but is not limited to, the data types listed in Table 14 of this decision.

22. The following objectives for the net billing and related tariffs evaluation research questions are adopted:

- (a) The evaluation should determine whether customer generation tariffs are equitable and the extent to which tariff costs are shifted to non-participating customers.
- (b) The evaluation should quantify the customer generation tariffs' effects on greenhouse gas emissions and their impacts on California's greenhouse gas emissions reductions objectives.
- (c) The evaluation should quantify the customer generation tariffs' impacts on California's electrification goals.
- (d) The evaluation should quantify the customer generation tariffs' impacts on the electric grid, including but not limited to the timing of customers' grid energy use, storage (battery) dispatch trends, and electrification of consumer end uses.
- (e) The evaluation should assess trends in installation of distributed generation, including stand-alone solar, solar paired with storage, and wind systems, and assess market trends such as customer prices for such systems.
- (f) The evaluation should assess the effects of the Commission's consumer protection measures on customers enrolled in customer generation tariffs.

23. The consultant hired to conduct the evaluation of the net billing tariff and all subtariffs shall follow the objectives of the evaluation and shall consider the set of proposed evaluation questions in Table 11 of this decision, the proposed metrics in Table 13 of this decision, the proposed data to be collected in Table 14 of this decision, and other relevant information contained in the record of this proceeding. The consultant should recognize this information is a starting point.

24. The net billing tariff evaluation shall include the following steps:

- (a) Development of the Research Plan: A draft research plan shall be provided to the service list within 90 days after the effective date of the contract or agreement with the evaluation consultant and at least 10 days prior to a public workshop. Written informal comments on the draft Research Plan will be received by the consultant. The final Research Plan will be provided to parties with one additional opportunity to comment. A final Research Plan will be approved by the Director of the Energy Division or their designee.
- (b) Evaluation Report: Energy Division is authorized to provide a draft report and workpapers no later than six weeks prior to a workshop. Written informal comments will be received and addressed in the final report.
- (c) Final Evaluation Report: The final evaluation report will be provided as an attachment to an order instituting rulemaking to determine whether changes to the net billing tariff, virtual net billing tariff or aggregation subtariff are necessary.

25. The Staff Proposal to Implement Net Energy Metering Fuel Cell Greenhouse Gas Emissions Standards (CARB Standards), as modified by this

decision and attached as Appendix B, is adopted. The CARB Standards are applicable to all Net Energy Metering Fuel Cell resources that received permission to operate after the effective date of Assembly Bill 1637.

26. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company are authorized to charge an annual documentation fee to reflect the cost to administer the annual collection and processing of certifications as approved in the Staff Proposal adopted above in Ordering Paragraph 25.

27. No later than 60 days following the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall submit a Tier 2 advice letter updating the Net Energy Metering Fuel Cell (NEMFC) tariff as directed in this decision, including proposing an updated interconnection application fee and an annual documentation fee. Utilities shall make every effort to ensure language uniformity. The interconnection fee shall be based on the following costs incurred for NEMFC resources less than one megawatt in size: NEM Processing and Administrative Costs, Distribution Engineering Costs, and Metering Installation/Inspection and Commissioning Costs. Utilities shall report NEMFC interconnection and documentation costs in the annual "Net Energy Metering and Net Billing Tariff Annual Reporting Advice Letter." Utilities are authorized to propose any necessary changes to these fees through submission of a Tier 2 advice letter.

28. In the Tier 2 advice letter directed above in Ordering Paragraph 28, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall propose documentation to comply with current Self-Generation Incentive Program handbook requirements and will

propose the manner and interval of the submittal of monthly data. Utilities shall annually verify Net Energy Metering Fuel Cell tariff participant recertification using this supporting documentation and data.

29. No later than March 31, on an annual basis beginning in 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall post uniformly formatted, public, anonymized monthly Net Energy Metering Fuel Cell tariff participant performance data from the previous calendar year on the California Distributed Generation Statistics website, or another website as determined by the Energy Division.

30. Within 90 days after a modified Greenhouse Gases, Regulated Emissions and Energy Use in Transportation model is first approved pursuant to Decision 22-02-025, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall each submit Tier 2 Advice Letters to revise the instructions for calculating carbon intensities in each of their Net Energy Metering Fuel Cell tariffs based on the modified model.

31. No later than December 15, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall revise the Interconnection Application process to implement Public Utilities (Pub. Util.) Code §769.2. as described in Section 3.6 of this decision. The revisions shall include review and completion, by the utility, of a Public Utilities (Pub. Util.) Code §769.2 Checklist, the submittal by the applicant of the Pub. Util. Code §769.2 Prevailing Wage Disclosure Form, and confirmation by the utility that the contractor is up to date with their past required submittals of payroll records.

32. No later than December 15, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall create a uniform Public Utilities (Pub. Util.) Code §769.2 Checklist and a

downloadable Pub. Util. Code §769.2 Prevailing Wage Disclosure Form, as described in Section 3.6 of this decision.

33. No later than December 29, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall submit a Tier 1 advice letter revising language for tariffs implemented under Public Utilities (Pub. Util.) Code §2827 and Pub. Util. Code §2827.1 to reflect the changes adopted in Section 3.6 of this decision and listed under subsection B of section 3.6.6. This advice letter shall include submittal of the Pub. Util. Code §769.2 Checklist and a Pub. Util. Code §769.2 Prevailing Wage Disclosure Form to be developed, as required above in Ordering Paragraph 32.

34. No later than December 15, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall host an informal workshop, inviting the service list of this proceeding, to discuss the contents of the advice letters required by Ordering Paragraph 34 above.

35. No later than January 15, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall provide access to their interconnection portals to the Department of Industrial Relations. The Director of Energy Division or their designee is authorized to add or remove interagency staff and the evaluation consultant(s) as needed.

36. No later than December 15, 2023, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall enter into or amend existing confidential disclosure agreements with the Department of Industrial Relations to implement Public Utilities Code Section 769.2.

37. The Commission's Energy Division maintains the statutory authority to hire a consultant to create and implement a system to collect the payroll records required by Public Utilities Code Section 769.2.

38. No later than 30 days after the adoption of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall enter into a non-disclosure agreement with the consultant referenced in Ordering Paragraph 38.

39. No later than February 15, 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) shall submit a Tier 2 Advice Letter proposing the specifics of a customer-generation export tariff using the pricing established in Decision 20-05-006. Utilities shall consider the different impacts to customers on the virtual net energy metering and virtual net billing tariffs, and alternatives to address this new tariff..

40. Beginning January 1, 2025, contractors who have willful wage violation determination of the prevailing wage requirement in Public Utilities Code Section 769.2, will no longer be able to build facilities seeking to utilize tariffs pursuant to Public Utilities Code Sections 2827 and 2827.1. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall ensure future tariff access is prohibited for contractors with violations.

41. All rulings made by the Administrative Law Judge and assigned Commissioner in this proceeding are affirmed; all motions not ruled on are denied.

42. Rulemaking 20-08-020 is closed.

This order is effective today.

Dated November 16, 2023, at El Centro, California.

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

APPENDIX A
Virtual Net Metering Tariff Requirements
Adopted in D.08-10-036

APPENDIX A

Virtual Net Metering Tariff Requirements Adopted in D.08-10-036

- Each utility's Virtual Net Metering¹ (VNEM) tariff must comply with Public Utilities Code Section (Pub. Util. Code §) 2827 and at a minimum:
- Allow for the allocation of net energy metering benefits from a single solar energy system to all meters on an individually metered multifamily affordable housing property, without adversely impacting building tenants.
- Allow the building owner/manager to determine the percentage of solar energy credits allocated to common area meters versus individual tenant meters, and this allocation shall remain fixed for at least five years.¹
- The annual solar energy credits allocated to common area and to each of the tenant meters may not exceed the associated estimated load (in kilowatt hours) for the coming year.
- The percentage of solar energy credits (in kilowatt hours) allocated to individual tenant meters should be credited across all individual meters based on the relative size of the tenant's unit. Credits (in dollars) should be applied at the otherwise applicable rate for each meter.
- The building owner/manager shall be responsible for, and shall bear all costs associated with, installing a generator output meter capable of recording solar energy system output in 15-minute increments, if required, to insure appropriate customer credits.

¹ D.08-10-036 used the term virtual net metering and the acronym VNM. For consistency throughout this decision, this Appendix uses the term virtual net energy metering and the acronym VNEM.

- Excess credits should be carried forward monthly according to standard net energy metering rules, as set forth in Pub. Util. Code §2827.
- The VNEM tariff may not apply any additional charges or administration fees on tenants who benefit from the VNEM tariff.

(END OF APPENDIX A)

APPENDIX B
Adopted Staff Proposal for
Implementation of CARB Standards

MODIFIED STAFF PROPOSAL TO IMPLEMENT NEMFC GHG EMISSION STANDARDS**BACKGROUND**

Assembly Bill (AB) 1637 (Low, 2016) extended the sunset date of the net energy metering fuel cell (NEMFC) tariff from January 1, 2017, to December 31, 2021, and required the California Air Resources Board (ARB) to develop annual greenhouse gas (GHG) emission standards that all fuel cell systems taking service under the tariff must meet. The NEMFC GHG emission standards developed by ARB became effective on October 26, 2020.¹ ARB has developed standards for the years 2017 through 2025, that are shown in Table 1.²

Table 1: NEMFC GHG Emission Standards

Year	Average Annual GHG Emission Standards (kgCO₂e/MWh)
2017	409
2018	399
2019	389
2020	379
2021	365.6
2022	352.2
2023	338.8
2024	325.4
2025	312

Per the regulation, ARB will calculate annual GHG emission standards and publish them on the ARB website every three years until 2047.

Pursuant to AB 1637, the California Public Utilities Commission (CPUC) must direct the three large investor-owned utilities (i.e., Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company) to implement and enforce the standards.³

In order for a fuel cell system to qualify for the NEMFC tariff, the statute requires that the customer-generator use a “technology the [CPUC] has determined will achieve reductions in

¹ “Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation” (<https://ww2.arb.ca.gov/rulemaking/2019/fuelcellnem19>)

² Final Regulation Order:

Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation (<https://ww3.arb.ca.gov/regact/2019/fcnem19/fro.pdf>)

³ Pub. Util. Code § 2827.10.

emissions of greenhouse gases pursuant to [ARB's NEMFC GHG emission standards]."⁴ The August 31, 2016 Assembly Floor Analysis of AB 1637 provides more context for the requirements:

For NEMFC, this bill establishes more stringent GHG standards to assure eligible projects remain cleaner than the grid each year of operation. The bill establishes a new GHG standard, established by ARB, rather than the existing [CPUC Self-Generation Incentive Program] standard, which is expected to be lower than the existing standard at the outset, and get progressively lower each year as the overall GHG emissions from the grid decrease due to implementation of [California's] Renewables Portfolio Standard, reduction of coal imports, and other factors.⁵

This staff proposal addresses Issue 5 in the Sixth Amended Scoping Memo for Rulemaking (R.)14-07-002: "Implementation of AB 1637, 2015-2016 Reg. Sess. (Ca. 2016), which requires the Commission to implement an emissions performance standard for NEM fuel cell customers, once a standard is adopted by the State Air Resources Board."⁶ It also addresses Issue 6 in the Scoping Memo for R.20-08-020: "Other issues that may arise related to current net energy metering tariffs and subtariffs, which include... the net energy metering fuel cell tariff."⁷

The requirements of this Staff Proposal shall apply to fuel cell systems that received permission to operate from the host utility on or after the effective date of AB 1637 on January 1, 2017. Fuel cell systems that received permission to operate prior to that date shall not be subject to the NEMFC GHG emission standards, conduct the reporting described in this Staff Proposal, or pay the annual documentation fee introduced in this Staff Proposal.

STAFF PROPOSAL

NEMFC systems must satisfy ARB's annual GHG emission standards each year. The three large investor-owned utilities are responsible for implementing and enforcing the standards according to the framework outlined below.

⁴ Pub. Util. Code § 2827.10(a)(3)(A)(iii). ARB's mandate to develop of the NEMFC GHG emission standards can be found in Pub. Util. Code § 2827.10(b):

(1) Not later than March 31, 2017, the State Air Resources Board, in consultation with the Energy Commission, shall establish a schedule of annual greenhouse gas emissions reduction standards for a fuel cell electrical generation resource for purposes of clause (iii) of subparagraph (A) of paragraph (3) of subdivision (a) and shall update the schedule every three years with applicable standards for each intervening year. (2) The greenhouse gas emissions reduction standards shall ensure that each fuel cell electrical generation resource, for purposes of clause (iii) of subparagraph (A) of paragraph (3) of subdivision (a), reduces greenhouse gas emissions compared to the electrical grid resources, including renewable resources, that the fuel cell electrical generation resource displaces, accounting for both procurement and operation of the electrical grid.

⁵ [http://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160AB1637#/.](http://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160AB1637#/)

⁶ [http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M304/K863/304863863.PDF/.](http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M304/K863/304863863.PDF/)

⁷ [https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M351/K623/351623038.PDF.](https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M351/K623/351623038.PDF)

Fees, Certification, and Reporting

For new systems, prior to receiving interconnection approval from the host utility, the customer-generator must pay an interconnection application fee. For new and existing systems, the customer-generator must pay an annual documentation fee.

For new systems, prior to receiving interconnection approval from the host utility, the customer-generator must certify that the NEMFC system will meet the GHG emission standard in the year that it commences operation. The customer-generator must use performance test code ASME PTC 50-2002 to determine the first-year emission rate.⁸ An exception is made for NEMFC systems utilizing waste heat whose emission rate cannot feasibly be calculated using only test code ASME PTC 50-2002. A customer-generator with such a system may use equipment specification sheets to demonstrate the system's fuel input rate and net electrical power output; and for a CHP system, the useful heat rate, in the calculation of its emission rate. A customer-generator with a NEMFC system utilizing waste heat must certify any waste heat usage included in the calculation of the emission rate.

For existing NEMFC systems seeking to remain eligible for the NEMFC tariff, the customer-generator must certify with the host utility that the generator meets the then-current GHG emission standard within six months of the CPUC issuing a decision that implements the standards. The customer-generator must use performance test code ASME PTC 50-2002 or, as allowed under the circumstances described above, equipment specification sheets, to determine the first-year emission rate, which must then be adjusted by a model-specific performance degradation assumption to yield the system's emission rate in that year. The customer-generator must submit documentation on the generator's projected annual degradation rate.

Each year after the initial certification, before the anniversary of the NEMFC interconnection agreement's execution date, the customer-generator must recertify compliance with the current year's GHG emission standard according to the procedures described in the then-current Self-Generation Incentive Program (SGIP) handbook.⁹ The customer-generator (or performance data provider, see below) must submit documentation on the fuel cell system's GHG emissions based on its real-time monitoring data, using metering and monitoring equipment that complies with SGIP handbook requirements and measures net electrical output from the system, fuel input metering into the system, and for combined heat and power (CHP) technologies, and useful thermal energy delivered to the site from the CHP system. All SGIP requirements must be followed, including that system owners must install and maintain metering and monitoring equipment at their own cost, all AC electric meters must be listed on the California Energy Commission's list of Eligible System Performance and Revenue Grade Meters, and it is the responsibility of the System Owners to contract with a performance data provider. For the purpose of NEMFC compliance, the customer-generator must contract with a performance data provider for the duration the customer-generator takes service on the NEMFC tariff. Performance data providers will be tasked with recording

⁸ <https://www.asme.org/codes-standards/find-codes-standards/ptc-50-fuel-cell-power-systems-performance/>.

⁹ <https://www.selfgenca.com/home/resources/#handbook>

performance data from the installed metering and monitoring equipment and submitting it to the host utility.

As part of the annual recertification, the customer-generator or performance data provider must annually submit a Minimum Operating Efficiency Worksheet, a Directed Renewable Fuel Verification Form, and monthly data, along with any necessary supporting documentation in the format required by the host utility pursuant to applicable SGIP requirements..¹⁰

Optional Compliance Pathways

The next three sections propose methods for calculating the GHG emissions of fuel cell systems that use CHP; renewable fuels; and/or carbon capture, use, and storage (CCUS). The renewable fuel blending section also provides information on eligibility and reporting requirements for renewable fuels to qualify for use with the NEMFC tariff. A customer-generator may use multiple pathways simultaneously to calculate their fuel cell system's effective GHG emission rate for the purpose of compliance with the NEMFC GHG emission standards.

Waste Heat Utilization

Customer-generators may account for NEMFC systems' use of CHP in meeting the GHG emission standards.¹¹ The GHG savings from waste heat recovery are calculated by dividing the annual waste heat recovered in MMBtu by 80 percent, which represents nominal boiler efficiency, and then multiplying by the 53.07 kg CO₂e/MMBtu emission factor for the conversion of natural gas to CO₂. The net GHG output of the generator is calculated by subtracting the GHG savings due to waste heat recovery from the gross GHG output. The GHG emission rate for the generator is found by dividing the net annual GHG emission by the annual electrical output of the generator in MWh.

Renewable Fuel Blending

Customer-generators may account for NEMFC systems' use of renewable fuels in meeting the GHG emission standards. The generator's effective emission rate may be decreased to account for NEMFC-eligible (as described below) renewable fuel utilized. A customer-generator or performance data provider shall calculate the carbon intensity of renewable fuel utilized using the simplified carbon intensity calculators of the current California Greenhouse Gases, Regulated Emissions and Energy Use in Transportation (GREET) model. The NEMFC tariffs shall include a uniform set of more detailed instructions aligned with the method adopted in D.22-02-025 and approved via PG&E AL 4626-G.¹² The carbon intensity calculation basis will be changed to the modified GREET model whose use was directed in D.20-12-022, once that model is approved.

¹⁰ An example Minimum Operating Efficiency Worksheet from the Self-Generation Incentive Program can be found at: <https://www.selfgenca.com/home/resources/>.

¹¹ As part of ARB's Distributed Generation (DG) Certification Program, CHP fuel cells must meet a minimum efficiency of 60 percent at 100 percent load. More information can be found at: <https://ww2.arb.ca.gov/our-work/programs/distributed-generation-certification-program/>.

¹² https://www.pge.com/tariffs/assets/pdf/adviceletter/GAS_4626-G.pdf

All environmental attributes associated with renewable fuels used in a NEMFC system, including Renewable Energy Credits, if any, must be obtained and exclusively owned and retained by the NEMFC customer-generator. The customer-generator must not sell, trade, or transfer any environmental attributes of the contracted fuel sources. For directed renewable fuel, the customer-generator or performance provider must provide documentation of the renewable fuel seller's contractual obligation to provide all environmental attributes to the NEMFC customer-generator, except if using renewable fuel purchased from a utility as allowed below.

For onsite renewable fuel, which includes fuel delivered to the generating facility through a dedicated pipeline, all customer-generators must install a fuel metering system that reports use of both renewable and non-renewable fuel. The customer-generator must provide the utility with the make, model, specifications, and serial numbers of installed revenue grade gas meters. The customer-generator must contract with a performance data provider, and the performance data provider must submit both renewable and non-renewable fuel data to the utility on a monthly basis. NEMFC systems using onsite renewable fuels must comply with any applicable requirements of Pub. Util. Code § 651 (b)(3)(B) and the SGIP for directed renewable fuel.

For directed renewable fuel, the renewable fuel must be injected into a common carrier pipeline system in alignment with the requirements in Pub. Util. Code § 651 (b)(3)(B) and the SGIP.¹³ The customer-generator or performance data provider must provide the utility with monthly data on the amount of directed renewable fuel consumed on a monthly basis. The customer-generator or performance data provider must provide the source, path, and destination of the renewable fuel. Data reporting will commence one month after directed renewable fuel use begins. The customer-generator or performance data provider must provide the following information and documentation to the utility on a monthly basis:

- 1) Transportation Path and Energy Accounting: The customer-generator or performance data provider must upload invoices reporting the amount of renewable fuel that appears on the Directed Renewable Fuel Verification Form. Invoices and other supporting documentation must include:
 - Documentation from the source showing the amount of directed biogas moved into the pipeline. The documentation must identify any non-renewable gas added at the source.
 - Documentation from the gas transmission system showing:
 - Receipt of directed biogas from source, storage, or other pipelines;
 - Pipeline losses or fees paid in gas not carried over;
 - Positive or negative imbalances carried over; and
 - Delivery of directed biogas to either another pipeline, storage facility, or California utility receipt point.
- 2) Gas Fuel Consumption: The customer-generator or performance data provider must provide gas fuel consumption documentation from the gas utility matching the directed renewable fuel receipts reporting the metered total energy input to the generator. The customer-generator or performance data provider must report utility gas fuel consumption receipts on a monthly basis. It is

¹³ This requirement applies to all renewable fuels although PU Code § 651 (b)(3)(B) applies only to biomethane.

the responsibility of the customer-generator or performance data provider to supply the renewable fuel use documentation and to ensure that the renewable fuel is reported to the utility on a monthly basis.

Alternatively, a bundled core customer-generator can demonstrate compliance through use of eligible utility-supplied renewable natural gas (RNG) supplied to all bundled core gas customers and/or through participation in a voluntary tariff program that allows the customer-generator to offset fossil natural gas consumption with RNG through a special billing arrangement. Utility-supplied RNG will be considered eligible for GHG emissions reductions in NEMFC if it complies with all requirements in Pub. Util. Code § 651 (b)(3)(B) and the SGIP, but the environmental attributes of this RNG will remain with the utility. While no voluntary RNG tariff currently exists, Southern California Gas Company (SoCalGas) has proposed a voluntary RNG tariff pilot program for nonresidential customers.¹⁴ No other gas utility is currently proposing the creation of such a program. On December 17, 2020, the CPUC voted to adopt D.20-12-022 and allow SoCalGas and SDG&E to offer a modified voluntary pilot RNG tariff program that incorporates biomethane procurement targets that are in line with SB 1440. Under the terms of the adopted pilot program, a non-residential customer-generator in the participating IOUs' service territories could pay extra to purchase 100 percent RNG in a manner akin to the Green Tariff/Shared Renewables Program (GTSR) for electricity. Participation in the pilot RNG tariff program would qualify a customer-generator for NEMFC eligibility and shift the onus for RNG verification onto the IOU responsible for ensuring RNG procurement on behalf of the customer-generator.

Carbon Capture, Use, and Storage

CCUS is not currently allowed for compliance with the NEMFC GHG emission standards. A customer-generator may notify the relevant utility if desiring to perform CCUS in compliance with ARB's carbon capture and storage protocol. Then, within 12 months of such notice, the utility shall submit an advice letter to the CPUC proposing rules for the use of CCUS in NEMFC GHG emissions calculations.

Verification and Penalties

The utility will use the Minimum Operating Efficiency Worksheet, Directed Renewable Fuel Verification Form, supporting documentation, and monthly data to evaluate a generator's technical ability to meet the NEMFC GHG emission standards. The worksheet will also allow the utility to verify any adjustments made for CHP, renewable fuel utilization, and/or CCUS. Also, the utility will conduct an annual audit of the renewable fuel invoices for the life of any renewable fuel contract to verify renewable fuel consumption. Finally, the utilities may reserve the right to conduct field inspections to verify compliance with the standard.

Following any utility discovery of a lack of system compliance with either the NEMFC GHG emission standards, the utility will allow a six-month window in which to come into compliance. If the customer-generator fails to bring the NEMFC system into compliance within six months, the interconnection agreement will be terminated and the system will be served under a Rule 21 non-export agreement or another agreement for which the NEMFC system is eligible..

¹⁴ https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/submittals/GAS_6025-G-A.pdf

The utilities will conduct random no-warning spot-checks of directed renewable fuel sources and 30-day warnings in the case of noncompliance with the requirements described above, similarly to these practices in SGIP. If NEMFC compliance does not occur within 30 days, and if recalculation of the fuel cell system's greenhouse gas emissions without the purported renewable fuel results in the system emitting more than ARB's GHG emission standards, the interconnection agreement will be terminated and the system will be served under a Rule 21 non-export agreement or another agreement for which the NEMFC system is eligible.

(END OF APPENDIX B)