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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 (Filed August 27, 2020)

POST HEARING REPLY BRIEF OF NATURAL RESOURCES DEFENSE COUNCIL

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In accordance with the procedural schedule for the evidentiary hearing in this case, Natural Resources Defense Council ("NRDC") hereby submits this Reply Brief concerning the Commission's Net Energy Metering ("NEM") Program for California's rooftop solar industry. NRDC is a non-profit membership organization with more than 95,000 California members who have an interest in receiving affordable energy services while reducing their environmental impact and combatting climate change.

In this Reply Brief, NRDC responds primarily to the Joint Opening Brief of the Solar Energy Industry Association and Vote Solar ("SEIA/Vote Solar") and the Opening Brief of the California Solar & Storage Association ("CalSSA") (collectively, the "Solar Parties").

I. INTRODUCTION AND OVERVIEW

On August 31, 2021, the Public Advocates Office of the California Public Utilities Commission ("Cal Advocates"), The Utilities Reform Network (TURN), Coalition of Utility Employees (CUE), California Wind Energy Association (CalWEA), Independent Energy Producers Association (IEP) and NRDC submitted "Joint Recommendations" for the Commission's consideration in this case. The Joint Recommendations include both an Interim

NEM Tariff and a Successor NEM Tariff. Both are meritorious and should be adopted by the Commission.

In deciding the issues in this case, the Commission is required to apply the statutory criteria set forth in Section 2827.1 of the Public Utilities Code. Especially pertinent in this regard are the requirements of subparagraph (b)(1), which provides that the NEM Tariff should ensure that distributed solar generation "continues to grow sustainably," and subparagraph (b)(4), which provides that the NEM Tariff should balance costs and benefits and costs among all customers and also for the grid.

The Commission in this case also has committed to adhere to the Guiding Principles adopted in Decision 21-02-007. The most pertinent of the Guiding Principles are the first two, namely, that the Successor NEM Tariff should comply with Section 2827.1, and that it "should ensure equity among all customers."[1]

With respect to equity among customers, the key takeaway of the Lookback Study, which the Solar Parties attempt to downplay, is that the existing NEM-2 Tariff is causing a completely unacceptable and unsustainable degree of cost-shift from non-participating customers to participating customers. Participants in NEM are disproportionately wealthy and this creates a highly regressive transfer of wealth. The cost-shift manifests as an inordinate increase in electric rates for all customers; but mostly impacts those customers who don't participate in NEM. This inordinate rate increase makes it un-affordable for less-wealthier non-NEM participants, many of whom are don't have access to distributed generation, to electrify their homes and vehicles.

[1] D.21-02-007, p. 45, Ordering Paragraph 1, Guiding Principles (a) and (b).

Electrification is critical to achieving California's broader decarbonization goals. Any Successor Tariff must remedy this cost-shift.

The Solar Parties' Successor Tariff proposals do not meet the statutory criteria of Section 2827.1, and they fall well short of what the Guiding Principles require. The Solar Parties narrowly focus on growing their member companies, through tariff proposals that overly subsidize participating customers directly at the expense of the majority of Californians who do not have rooftop solar and for whom this technology is out of reach. This over-subsidization is grossly out of proportion to what is needed to sustainably grow the rooftop solar industry while balancing benefits and costs for all customers, and it is also inhibiting the Commission's ability to pursue the State's clean energy goals in the most cost effective manner.

II. DISCUSSION

A. Scoping Memo Issue 2: What information from the Net Energy Metering 2.0 Lookback Study should inform the successor and how should the Commission apply those findings in its consideration?

It is noteworthy that, although their Opening Briefs are quite lengthy, CalSSA and SEIA/Vote Solar give scant attention to the Lookback Study. CalSSA devotes a total of barely more than one page of its exceedingly bulky 235-page Opening Brief to the findings in the Lookback Study,[2] arguing that the Lookback Study "has very limited value" and should be "give[n] minimal weight" by the Commission.[3]

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[2] Verdant Associates, *Net Energy Metering 2.0 Lookback Study*, January 2021, at 17-18.
[3] California Solar & Storage Association (CalSSA), *Opening Brief of the California Solar & Storage Association*, at 17. (Hereafter referred to as "CalSSA Opening Brief")

The voluminous 130-page Opening Brief submitted by SEIA/Vote Solar similarly disposes of the Lookback Study in only slightly over three pages.[4] Unlike CalSSA, however, SEIA/Vote Solar at least recognize that the Lookback Study has exposed problems with the existing NEM program. They state that "we do agree that the Study illustrates the need for reform of the current NEM structure in the residential market."[5] They specifically acknowledge that the Lookback Study supports a "reduction of the impact of solar adoption on non-participating ratepayers" -- a tacit recognition of the cost-shift problem. But SEIA/Vote Solar conclude by questioning how "useful" the Lookback Study is, characterizing it as "backwards looking" in assessing a tariff -- NEM 2.0 -- "that no one is advocating to keep for general market residential customers."[6]

Contrary to the claims of the Solar Parties, the Lookback Study provides valuable information that should inform the Commission's development of a successor NEM tariff. NRDC has already explained in detail in its Opening Brief the serious deficiencies the Lookback Study has identified with the existing NEM program, and the strong case it makes for reform.[7] Although we need not repeat these points in detail here, it is noteworthy that the Lookback Study shows that, to the extent that the NEM Successor Tariff functionally resembles the existing NEM 2.0 tariff, it will perpetuate the problematic cost-shift and equity impacts attributable to the NEM 2.0 tariff.

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[4] Solar Energy Industry Association and Vote Solar, *Opening Briefs of the Solar Energy Industry Association and Vote Solar*, at 8 – 11. (Hereafter referred to as "SEIA/VS Opening Brief")
[5] Ibid. 8.
[6] Ibid. at 8-9.
[7] Natural Resources Defense Council, *Opening Brief of the Natural Resources Defense Council,* at 5 – 15. ("Hereafter NRDC Opening Brief")

This is exactly what the Successor Tariff proposals submitted by CalSSA and SEIA/Vote Solar effectively would do for the foreseeable future.

There are two main determinants of the cost shift, neither of which would be remedied by the Solar Parties' Successor Tariff proposals. The first determinant is paying for NEM exports at fully loaded retail rates, which substantially exceed the value of distributed generation as determined by the Commission's Avoided Cost Calculator. As to this determinant, the Solar Parties propose what amounts to a "keep-the-status-quo" approach. Initially, they would increase the measure of avoided costs, by attributing unsubstantiated societal benefits to NEM resources. Starting from this plateau, they then would slowly step down the compensation toward avoided costs (only halfway to avoided costs by 2030 per CalSSA's proposal).

Clearly, this self-serving proposal by the Solar Parties with respect to export compensation would not substantially reduce the cost-shift from distributed generation exports.

The second determinant of the cost-shift stems from the fact that, under existing NEM tariffs, NEM customers avoid paying that portion of grid costs (transmission, distribution, and generation) and societal costs (non-bypassable charges including public benefit programs) attributable to the electricity they consume that is generated by their on-site solar panels. Although this aspect of the cost shift could be remedied by a grid benefit charge ("GBC"), as discussed below the Solar Parties adamantly oppose any such charge. Here, again, the Solar Parties' Successor Tariff proposals fail to address a root cause of the cost shift and would leave it unremedied.

This outcome is made apparent by an objective comparative analysis of successor party proposals. The Solar Parties' proposals are functionally similar to the NEM 2.0 Tariff and would

perpetuate its shortcomings. This can be illustrated with two examples. First, the E3 analysis of Successor Tariff Proposals showed that the ratepayer impact measure ("RIM") scores for the Solar Parties' proposals and the NEM 2.0 Tariff, respectively, would be substantially similar. Second, SEIA/Vote Solar's own analysis confirms that the simple payback periods yielded by the Solar Parties' Successor Tariff proposals would be nearly identical to those produced by the NEM 2.0 Tariff for the foreseeable future.[8] This means that NEM customers would be as well-off under Solar Parties' Successor Tariff proposals as they are now under the NEM 2.0 Tariff, and that there would be virtually no relief from the cost-shift for non-participating customers.

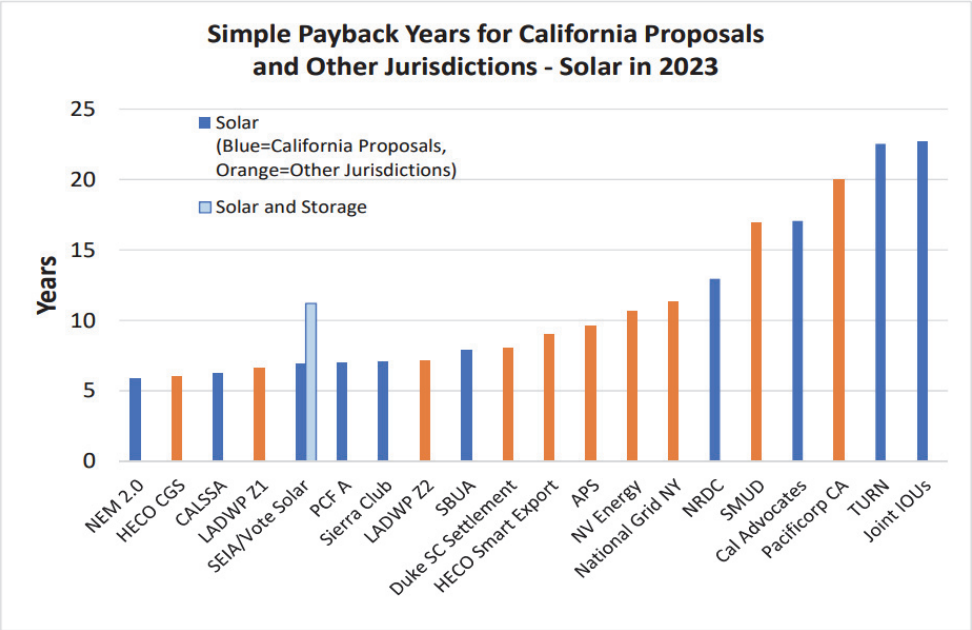
Put another way, the Solar Parties' Successor Tariffs would perpetuate the cost-shift that the Lookback Study has demonstrated under the NEM 2.0 Tariff. Their version of a Successor Tariff would produce similar inequities from the standpoint of non-participating customers. This is a compelling basis for rejecting the Solar Parties' Successor Tariff proposals.

Figure 1 Successor Tariff Comparative Analysis Showing Cost-Shift and Cost-Effectiveness of Solar Organizations Proposals for a 2023 Non-Care Residential Customer[9]

Proposal	IOU	Payback Period (yr)	1st Year Cost Shift	PCT	RIM	TRC
	PG&E	4.8	$ 1,664	3.05	0.12	0.36
CALSSA	*SCE*	5.5	$ 1,228	2.64	0.22	0.58
	SDG&E	3.5	$ 2,289	4.23	0.09	0.39
	PG&E	5.4	$ 1,443	2.73	0.13	0.36
SEIA/Vote Solar	*SCE*	6.3	$ 1,039	2.34	0.24	0.58
	SDG&E	3.6	$ 2,183	4.06	0.09	0.39
	PG&E	4.5	$ 1,817	3.28	0.11	0.36
NEM 2.0	*SCE*	5.4	$ 1,287	2.74	0.21	0.58
	SDG&E	3.2	$ 2,467	4.52	0.09	0.39

[8] SEIA/VS Opening Brief., at 36.
[9] E3, Comparative Analysis of Party Proposals, R.20-08-020, June 2021, at 34

Figure 2 Simply Payback Analysis by SEIA/ VS[10]



In essence, when it comes to the Lookback Study, CalSSA and SEIA/Vote Solar are whistling past the graveyard. They seek to downplay the impact of the Lookback Study's findings, and its implications for setting a Successor Tariff.

B. Scoping Memo Issue 3: What method should the Commission use to analyze the program elements identified in Issue 4 and the resulting proposals, while ensuring the proposals comply with the guiding principles?

i. The Solar Parties Propose a Distorted Interpretation of Public Utilities Code Section 2827.1(b)

Section 2827.1 of the Public Utilities Code sets forth a list of seven factors the Commission is required to consider in developing a Successor NEM Tariff. As CalSSA acknowledges in its Opening Brief, "[t]he Commission is tasked with adhering to and balancing

[10] SEIA/ VS Opening Brief at 36.

these statutory requirements in its development of a successor tariff." [11] Both CalSSA and SEIA/VS misapply Section 2827.1(b) in advocating for their Successor Tariff proposal. Specifically, they fail to comply with subsections (b)(4) and (b)(1), which require that the Successor Tariff balance benefits and costs for all customers and ensure that distributed generation continues to grow sustainably.

ii. Subsection (b)(4) Balancing Benefits and Burdens

Of particular importance in this case is the requirement of subsection (b)(4) of Section 2827.1, which provides that the NEM Successor Tariff must "ensure that the total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total costs."

CalSSA argues in its Opening Brief that, notwithstanding the Commission's Standard Practice Manual (which requires "considerat[ion] of tradeoffs between the various tests"), the Commission in evaluating cost effectiveness of Successor Tariff proposals should do so "with the [Total Resource Cost test ("TRC test")] leading the way."[12] CalSSA points to the Guiding Principles Decision in this case, where the Commission ruled that it would "designate the Total Resource Cost test as the primary test for analyzing the cost effectiveness of successors to the net energy metering tariff, but will also review the Ratepayer Impact Measure and Participant Cost Test as part of the analysis."[13]

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[11] CalSSA Opening Brief at 7.
[12] CalSSA Opening Br., p. 43.
[13] California Public Utilities Commission, *Decision Adopting Guiding Principles for the Development of a Successor to the Current Net Energy Metering Tariff (D.21-02-007)*, February 2021, at 36

But the shortcomings of the TRC test for evaluating NEM tariffs have become obvious through the testimony and record evidence in this case. The TRC test is clearly not well suited to comply with the requirement of subsection (b)(4) of Section 2827.1, which by its terms requires a balancing of benefits and costs among "all customers."

In his opening testimony (Ex. NRD-01, at pp. 8-9), NRDC witness Mohit Chhabra pointed out that the NEM Comparative Analysis Study undertaken at the Commission's direction, which was released on June 15, 2021, showed no differences in results among the various Successor Tariff proposals based on the TRC test. Mr. Chhabra referred to page 4 of the Commission's Comparative Analysis Study. There is a graph on that page showing identical TRC scores per utility for all Successor Tariff proposals in this case. As Mr. Chhabra testified, the TRC test "does not help to choose one tariff proposal over the other." (Ex. NRC-01, p. 9, line 1.) Because it reveals nothing about the relative merits of the various Successor Tariff proposals, plainly the TRC test cannot "lead the way," as CalSSA advocates. Moreover, the costs considered by the TRC are only costs borne by the NEM participants and the utility;[14] the TRC does not comply with the requirement of subsection (b)(4) to balance benefits and costs to all customers.

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[14] California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, at 18.

> "The costs in this test are the program costs paid by both the utility and the participants plus the increase in supply costs for the periods in which load is increased. Thus, all equipment costs, installation, operation and maintenance, cost of removal (less salvage value), and administration costs, no matter who pays for them, are included in this test. Any tax credits are considered a reduction to costs in this test. For fuel substitution programs, the costs also include the increase in supply costs for the utility providing the fuel that is chosen as a result of the program."

More is required for the Commission to fulfill its statutory responsibility under subsection (b)(4) of Section 2827.1. Consistent with the Commission's Standard Practice Manual, Mr. Chhabra recommended the application of a series of metrics, beyond the TRC test, to evaluate and compare the various Successor Tariff proposals under the Guiding Principles. "The Commission," he testified, "needs to apply the results of PCT and RIM for all proposals," and, in doing so, come to "understand the proposal's cost effectiveness from the point of view of participants and non-participants respectively."[15]

Mr. Chhabra explained as follows how to capture cost-effectiveness from all perspectives -- of both participants and non-participants -- as the statute requires:

- NEM participant metrics: the PCT or payback period. The higher the PCT, the lower the payback period, and the more beneficial a NEM tariff is for the participant.
- NEM non-participant metrics: the cost-shift or the RIM. The higher the cost-shift, the lower the RIM, the higher the cost burden faced by non-participants.[16]

iii. Subsection (b)(1): Ensuring Sustainable Growth

In addition to the balancing of benefits and burdens in subsection (b)(4), yet another key requirement of Section 2827.1 is that the Successor Tariff must "ensure[] that customer-sited renewable distributed generation *continues to grow sustainably*…" (Emphasis added.) Here, again, the Solar Parties push an approach that fails to satisfy the statute.

CalSSA, for example, suggests that the Commission should strive for growth in the distributed solar industry that is "steady."[17] Likewise, SEIA/Vote Solar boldly claim that their

[15] Ex. NRD-01, p. 9, lines 2-4.
[16] Ex. NRD-01, p. 9, lines 6-10.
[17] CalSSA Opening Brief, at 19.

Successor Tariff proposal, with its gradual "glidepath" towards a slight reduction in ratepayer-financed subsidies, is "tailored to promote continued growth" of the distributed solar industry.[18]

NRDC witness Mohit Chhabra testified convincingly that the Commission, in seeking to achieve the goal of "sustainable" growth, should do so in a way that better balances the interests of *all* customers, both those who have distributed solar generation on their premises and those who do not. "The Commission," he said, "must acknowledge its responsibility to all utility customers and its own policy goals to define the term 'sustainably' from the perspective of all utility customers."[19] Mr. Chhabra urged that, in adopting a Successor NEM Tariff, the Commission "should strive to balance encouraging growth of distributed generation while ensuring that this growth does not burden non-participants."[20] "A tariff that burdens those who cannot access it," Mr. Chhabra testified, "is not sustainable." [21]

Mr. Chhabra is correct. The statutory goal for distributed solar generators is not "steady growth" or "continued growth." The statutory goal is growth that is "sustainable." Fairness and equity among customers must serve as a guidepost in achieving this goal. As the first two of the Commission's Guiding Principles in this case state, the Successor Tariff "should comply with the statutory requirements of Public Utilities Code Section 2827.1," and in doing so "should ensure equity among customers."[22]

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[18] SEIA/Vote Solar Opening Brief, at 76.
[19] Ex. NRC-01, p. 9, lines 23-24.
[20] Ibid., p. 9, line 25, to p. 10, line 1.
[21] Ibid., p. 10, lines 1-2.
[22] D.21-02-007, p. 45, Ordering Paragraph 1.

C. Scoping Memo Issue 4: What program elements or specific features should the Commission include in a successor to the current net energy metering tariff?

i. A Grid Benefits Charge Is Necessary to Achieve Equity Between Participating and Non-Participating Customers, and Is Not "Illegal"

In their opening briefs, the Solar Parties have attacked the Grid Benefits Charge ("GBC") proposed by NRDC and other parties, claiming that it is unlawful under a federal statute, the Public Utilities Regulatory Policies Act of 1978 (16 U.S.C. §§ 2601, et seq.) ("PURPA").

In a section of their brief entitled "Solar Only Charges Must Be Rejected",[23] SEIA/Vote Solar include an argument beginning with the caption: "GBCs may be illegal under PURPA."[24] They claim that a GBC "would impose higher fixed charges on NEM customers" than on non-participating customers, which they say "is clearly contrary to PURPA."[25] The "illegality of such charges under PURPA," they claim "are [sic] already under scrutiny at [the Federal Energy Regulatory Commission ("FERC").]" In support of this claim that GBC-type charges are "under scrutiny at FERC," SEIA/Vote Solar cite to a recent Joint Statement by FERC Chairman Richard Glick and FERC Commissioner Allison Clements, concurring with a "Notice of Intent Not to Act" issued by FERC on June 1, 2021, in FERC Docket No. EL21-64-000.[26]

In the FERC proceeding, on June 1, 2021, all five of the FERC Commissioners voted unanimously *not* to initiate an enforcement action under PURPA against the Alabama Public Service Commission and Alabama Power Company for a GBC-type charge for rooftop solar

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[23] SEIA/Vote Solar Opening Brief., Sec. IV.G.4, at 51 et seq.
[24] Ibid., at 61, et seq.
[25] Ibid., p. 62.
[26] *James H. Blankston, Jr. v. Alabama Public Service Commission*, FERC Docket No. EL21-64-000, "Notice of Intent Not to Act," issued June 1, 2021.

customers. In their separate statement, Chairman Glick and Commissioner Clements wrote: "We agree with the determination of the Commission not to bring an enforcement action." Nevertheless, the two FERC Commissioners expressed concern that the Alabama tariff "may be discriminatory" against solar customers under the federal PURPA statute.[27]

CalSSA likewise cites the recent concurring statement by the two FERC Commissioners to support CalSSA's argument that the GBC, if adopted by the Commission, would "contravene the antidiscrimination provisions set forth in PURPA."[28] CalSSA argues that, because there is no "cost of service difference between NEM and non-NEM customers,"[29] it would be unlawfully "discriminatory" under PURPA if this Commission were to adopt a GBC for NEM customers. [30] CalSSA concludes its PURPA argument with the following statement:

> These proposed fees do not account for incremental costs to the utility arising from a distinct or additional service, but rather use a customer's NEM status as a basis for charging more for the same goods and services than the utility charges to non-NEM customers. This is discriminatory treatment under federal law.[31]

The "discrimination" argument by the solar parties does not withstand scrutiny, for three reasons.

First, as explained in NRDC's Opening Brief,[32] the GBC is not "discriminatory" at all, much less "unduly discriminatory." On the contrary, it is a narrowly-tailored charge that appropriately will recover from NEM customers their fair share of the costs of the utility

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[27] The concurring statement of Chairman Glick and Commissioner Clements in the Alabama case is posted on FERCs website at the following link: https://www.ferc.gov/news-events/news/chairman-glick-commissioner-clements-joint-concurrence-regarding-concerns-alabama
[28] CalSSA Opening Brief at 137.
[29] Ibid., at 140.
[30] Ibid., at 140-141.
[31] Ibid., at 142.
[32] NRDC Opening Brief, at 31.

company transmission and distribution systems that serve them. As NRDC stated, "[a]ll customers, both those who have rooftop solar or paired BTM solar-plus-storage, and those who do not have such facilities, reasonably should pay their fair share of grid costs."[33]

The latter category of customers -- those who do not have on-site generating facilities -- pay their share of transmission and distribution system costs via volumetric rates (i.e., rates set per kilowatt-hour of consumption). NEM customers, in contrast, can self-generate a portion of the power they consume on their premises. For this portion of their electricity consumption, NEM customers avoid paying their full share of the transmission and distribution system costs. The GBC remedies this inequity, by imposing on NEM customers a cost-based monthly charge that recoups, for self-consumption quantities, their share of the utility company's transmission and distribution costs (and non-bypassable charges under the California Public Advocates' Proposal.)

Thus, properly understood, a GBC for NEM customers does not **cause** discrimination against such customers, but rather is required as a **remedy** for discrimination against non-NEM customers who are otherwise forced to bear an unfair and disproportionate share of transmission and distribution costs. Put another way, from the perspective of non-participating customers (i.e., those without rooftop solar or BTM solar-plus-storage), it is the *absence* of a GBC that causes discrimination. The GBC is a needed to remedy such discrimination. In doing so, the GBC eliminates an unfair preference enjoyed by NEM customers.

[33] Ibid.

It is plainly erroneous and self-serving for the Solar Parties to characterize as "discriminatory" the elimination of an undue preference enjoyed by NEM customers that has been perpetuated at the expense of non-participating customers.

Nor is it correct to characterize the GBC as a "solar fee," a term repeatedly used by CalSSA.[34] In questioning of NRDC witness Mohit Chhabra at the hearing about the GBC proposal, counsel for CalSSA persisted in using the term "solar fee." Finally, Mr. Chhabra responded, "We don't have a solar fee. Are you … referencing the Grid Benefits Charge?" Counsel responded: "Yeah."[35]

Second, there is no actual case authority to support the argument of the solar parties that a GBC if adopted by this Commission would be unlawful under the federal PURPA statute. The best they have come up with is a concurring opinion by a minority of two FERC Commissioners (Chairman Glick and Commissioner Clements), in a case where FERC unanimously *declined* to take enforcement action against a solar fee adopted by the Alabama Public Service Commission for rooftop solar customers of Alabama Power Company. Although the Alabama Public Service Commission's decision has been challenged repeatedly by the rooftop solar industry and its supporters, the fact remains that neither FERC nor any court with jurisdiction over the matter has ruled the Alabama tariff to be unlawful. The argument by CalSSA and SEIA/Vote Solar that the GBC would violate PURPA is totally unsupported by any legal precedents, and accordingly it should be given no weight by the Commission.

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[34] See, for example, CalSSA Opening Brief, at 212-213.
[35] Tr. 1768, line 17 and line 22, Tr. 1769, line 16 and line 22.

Third, in arguing that the GBC if adopted by the Commission would be "illegal" under the PURPA statute, the Solar Parties in effect are asking this Commission to contradict a detailed legal position articulated just last year by the National Regulatory Utilities Commissioners ("NARUC") on behalf of this Commission and the Commissions of the 49 other States and the District of Columbia, in a major FERC proceeding concerning State NEM policies.

Indeed, the Solar Parties are asking the Commission to contradict what SEIA itself argued in that same FERC proceeding.

Just over a year ago, on July 16, 2020, FERC issued an "Order Dismissing Petition for Declaratory Order," in a proceeding brought by an advocacy organization called the New England Ratepayers Association ("NERA").[36] The petitioner in that case had asked FERC to assert federal jurisdiction over power exported onto the grid by behind-the-meter distributed energy resources, including NEM providers, and to preempt State NEM programs providing for compensation on terms other than PURPA-approved avoided costs.

This Commission was an intervenor in the FERC proceedings, along with NARUC and numerous other State commissions. SEIA likewise was an active participant.[37]

On behalf of the State Commissions, in a brief authored by Suedeen Kelly, a respected former FERC Commissioner, NARUC argued forcefully that NEM export pricing was exclusively within the jurisdiction of the individual States, and accordingly that FERC had no

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[36] *In re New England Ratepayers Association*, "Order Dismissing Petition for Declaratory Order," FERC Docket No, EL20-42-000 (issued July 16, 2020) 172 FERC ¶ 61,042.

[37] Because this Commission was an active participant in the FERC proceedings in Docket No. EL20-42-000, it is appropriate for the Commission in this case to take official notice of pleadings filed in the FERC proceedings.

jurisdiction whatsoever over such pricing.[38] Among other things, the NARUC brief explained that net energy metering does not involve a "sale" of electricity at all, but is a matter of retail rate-setting within the exclusive jurisdiction of the State Commissions.

NARUC explained to the FERC, based on extensive legal analysis, that NEM exports do not constitute "sales" by the NEM customer to the utility company, and in any event that these transactions occur solely in local commerce, and not in interstate commerce. For these and other reasons, NARUC urged the FERC to either dismiss or deny the Petition for Declaratory Order. Based on an extended analysis of prior FERC cases, and decisions by the federal appellate courts on review of FERC orders, the NARUC brief concluded:

> The [FERC] has it right. Net metering is a means by which states define and measure their retail service. The local utility uses net metering to determine the quantity of the retail service provided to local customers during a billing period, and thus the retail rates to be paid to the local utility. The question of how to measure retail transactions falls squarely within the state's jurisdiction over retail service and does not implicate the [FERC's] jurisdiction.[39]

SEIA took a substantially similar position in the FERC proceedings. In its own legal brief, filed on June 15, 2020, SEIA argued, along the same lines as NARUC, that NEM exports should be exclusively regulated by the State Commissions, and not by the FERC.

SEIA's brief in the FERC proceedings included the following statement:

> Net metering is a policy that allows retail customers to exchange exported electricity for credits that can be used to offset all or a portion of the customer's retail electric

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[38] The NARUC legal brief in the FERC proceedings, filed on June 15, 2020, can be found at the following link: https://pubs.naruc.org/pub/4204BA38-155D-0A36-31CE-8A05CD0AC660

[39] NARUC Protest, FERC Docket No. EL20-42-000 (filed June 15, 2020), p. 22 (internal quotation marks and footnote omitted).

> bill. These retail billing and crediting arrangements between retail customers and the interconnected utility pursuant to a state-administered net metering program do not fall within FERC's jurisdiction.[40]

Accordingly, for these and other reasons, SEIA argued that FERC "should affirm that all rates, terms, and conditions of net metering programs for retail end-users are subject to the exclusive jurisdiction of the states."[41]

Last year's Declaratory Order proceeding at FERC was focused entirely on netting arrangements for export compensation under NEM tariffs. It is these netting arrangements that are at issue in this proceeding before the Commission. A related, but different, topic, which is *not* within the scope of this proceeding, is "Net Surplus Compensation" under AB 920 (Stats. 2009, Ch. 376). The term "Net Surplus Compensation" refers to payments to NEM customers "for electricity they produce in excess of their on-site load at the end of a 12-month true-up period."[42] In Decision 11-06-016, the Commission approved rules for Net Surplus Compensation based on "avoided cost" pricing principles under the PURPA statute.

It is important to recognize that the arguments made by NARUC and SEIA in the FERC Declaratory Order proceeding did not concern Net Surplus Compensation, but only netting arrangements under State-approved NEM tariffs. This is the NEM export compensation issue the Commission is considering in the instant proceeding.

Consistent with the brief filed by NARUC on behalf of this Commission and the other State Commissions in the FERC Declaratory Order Proceeding, and consistent with what SEIA

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[40] SEIA Protest FERC Docket No. EL20-42-000 (filed June 15, 2020), at 19.
[41] Ibid., at 23.
[42] D.11-06-016, p. 2

itself argued in that same proceeding, the Commission should find that its authority over all aspects of NEM customer service is exclusive. Unlike Net Surplus Compensation, a special topic that the Commission addressed in Decision 11-06-016, NEM export pricing is not subject to federal regulation, whether under PURPA or any other federal statute.

In summary, there is no credible basis for the argument by CalSSA and SEIA/Vote Solar that a GBC would violate the antidiscrimination provisions of the PURPA statute.

ii. SEIA Has Acquiesced in New York's Grid Charge for NEM Customers

Sean Gallagher, SEIA's Vice President for State and Regulatory Affairs, testified in this case on behalf of SEIA and Vote Solar. In his prepared testimony, Mr. Gallagher characterized the GBC proposed by NRDC and others as "analogous" to a "customer benefit contribution charge" ("CBC") adopted by the New York Public Service Commission for NEM customers.[43] This was a forthright admission.

Under cross-examination at the hearing, Mr. Gallagher confirmed that the New York CBC has not faced any legal challenge from SEIA or from any other parties:[44]

Q. Do you agree that the charge adopted by the New York Public Service Commission, the customer benefit contribution charge, is reasonable?

A. I would say that we agreed essentially to the charge as part of an overall package that included maintaining those customers on net metering.

Q. And this charge is assessed only on customers with behind-the-meter renewable generation, right?

A. That is my understanding.

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[43] Ex. SVS-01, p. 8, lines 13-16
[44] Tr. Vol. 9 (Aug. 5, 2021), p.1458, line 9, to p.1459, line 12.

Q. And a similar customer without such generation is not required to pay this charge, correct?

A. That's correct. And that's why this is not our preferred policy mechanism. But as I said, we were able to agree to it in this case because it was part of a larger package.

Q. So, is it correct that SEIA didn't challenge the permissibility of this rate component under federal law in any judicial for[u]m or in front of the Federal Energy Regulatory Commission?

A. No, I think we were satisfied with the overall package.

Q. To your knowledge, has any stakeholder or party initiated a legal challenge to the permissibility of this rate component?

A. Not to my knowledge.

Despite Mr. Gallagher's testimony that the GBC proposed by NRDC and other parties in this case is "analogous" to New York's CBC,[45] in their Opening Brief, SEIA/Vote Solar have shifted gears. Immediately after the section of their Opening Brief questioning the lawfulness of the GBC,[46] SEIA and Vote Solar set forth an additional argument under a heading that reads: "GBCs Implemented in Other States Are Not Analogous."[47]

The SEIA/Vote Solar Opening Brief attempts to distinguish the New York grid charge on two bases: first, that it is smaller ("only a fraction") as compared with the GBC parties have proposed in this case, and second, that the proceeds of the New York grid charge "are used to fund public benefit programs" whereas the GBCs proposed in this case "would principally recover distribution, transmission, and generation costs."[48]

[45] Ex. SVS-01, p. 8, line 14.
[46] SEIA/VS Opening Brief at 61-62.
[47] Ibid. at 62.
[48] Ibid. at 63.

SEIA and Vote Solar, of course, are free to question *on policy grounds* the magnitude of the GBC proposed by NRDC and others, or to debate whether or to what extent it should be used to fund the NEM customers' share of transmission, distribution and/or generation costs. But they have completely failed in their effort to characterize the GBC as unlawful.

iii. NEM-1 and NEM-2 Customers Should Not Be Exempted from Paying a Grid Benefits Charge or an Equity Fee

CalSSA's Opening Brief contains a lengthy argument claiming that "retroactive" changes to NEM-1 and NEM-2 Tariffs would be unlawful.[49] Based on this line of argument, CalSSA claims that the Commission does not have the legal authority to impose a GBC or an Equity Fee on NEM-1 and NEM-2 customers.

These legal challenges warrant only a cursory response. First, instituting a GBC and an Equity Fee for NEM-1 and NEM-2 customers is not "retroactive" in any sense. These would be new charges, prospective in nature, that would be assessed to all NEM customers, both old and new, under the NEM Successor Tariff.

Second, it is important to bear in mind that the magnitude of the charges under consideration – especially for the Equity Fee -- is quite modest. There is no reason to think they will disturb the settled expectations of NEM-1 and NEM-2 customers in the manner suggested by CalSSA's overstated legal argument.

Third, CalSSA claims that Section 2827(g) of the Public Utilities Code constitutes a "safe harbor" that insulates NEM-1 customers from the Equity Fee.[50] This argument is incorrect. It

[49] CalSSA Opening Brief, at 220-228.
[50] Ibid., at 227-228.

fails to account for the subsequent enactment of Section 2827.1(b) of the Public Utilities Code, discussed above, which sets forth a seven-part list of criteria for a NEM Successor Tariff. Subsection (b)(6) of Section 2821.1(b) authorizes the Commission to enact "transition" rules for existing NEM-1 and NEM-2 customers. It provides sufficient legal authority for the Commission to adopt an Equity Fee for NEM-1 customers.

iv. The Joint Recommendations Include a Well-Crafted "Interim Tariff" to Serve as a Glidepath Toward the Successor NEM Tariff

The Solar Parties have raised alarm bells about the transition away from the current NEM-2 Tariff. CalSSA, for example, ridicules proposals from what it disparagingly calls the "Pro Transmission Parties'" for export pricing reform.[51] According to CalSSA, "the Pro Transmission Parties' proposals to link NEM export compensation with values from the Avoided Cost Calculator without a glidepath transition would be an extreme shock that would devastate the market for distributed energy resources."[52]

Similarly, SEIA/Vote Solar point ominously to the States of Nevada and Hawaii, where they claim an abrupt decrease in NEM export pricing caused the rooftop solar market to "plunge."[53] These "states had no stepdown in their compensation rates," they say, "and the impact on the market, including the loss in jobs, was severe."[54]

The Joint Recommendations, submitted by Cal Advocates and a broad coalition of parties that includes NRDC, has provided an effective response to these concerns. Section 6 of the Joint

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[51] CalSSA applies the label "Pro Transmission Parties" to Cal Advocates, NRDC, and all the parties who support the Joint Recommendations.
[52] CalSSA Opening Brief, at 106-107.
[53] SEIA/Vote Solar Opening Brief, at 77.
[54] Ibid.

Recommendations, entitled "Interim Transition to the NEM Successor Tariff," contains sufficient detail to provide a pragmatic and smooth transition, commencing in early 2022, away from the problematic NEM 2.0 Tariff.

The Interim Tariff included in the Joint Recommendations is a meaningful step toward a fair Successor Tariff. It will give industry an opportunity to adjust, by reducing the export rate but without imposing a grid benefit charge (GBC). With these features, the Interim Tariff will provide simple payback periods of approximately 7 years for SDG&E customers and between 8 and 9 years for PG&E and SCE customers. These simple payback periods are all slightly longer than those that NEM 2.0 provides, and thus the Interim Tariff will reduce the cost-shift caused by new NEM participants. At the same time, because these payback periods are not drastically different from those under the existing NEM 2.0 Tariff, the Interim Tariff will provide the solar industry with a glidepath toward an accurate end-state Successor Tariff.

The Interim Tariff will achieve a material reduction in the unjust, unreasonable, and unsustainable cost-shift that the existing NEM 2.0 Tariff forces upon non-participating customers. The Interim Tariff will better align the NEM program with the statutory mandate to balance benefits and costs among all customers, while providing an appropriate glidepath to the NEM Successor Tariff by January 2024.

In contrast, the Solar Parties press for what amount to minor, cosmetic changes to existing NEM Tariffs that effectively would just perpetuate the status quo. Their Successor Tariff proposals are a badly-disguised version of the NEM 2.0 Tariff. They would not correct the over-compensation for exports, and they would allow NEM customers to continue to avoid paying their fair share of transmission and distribution costs and non-bypassable charges. This is

confirmed not only by the E3 analysis of Successor Tariff proposals, but by the Solar Parties' own analysis.[55] If adopted by the Commission, the Solar Parties' Successor Tariff proposal would produce payback periods similar to those under the NEM-2 Tariff, and a level of cost-shifting comparable to what is caused by the NEM-2 Tariff.

v. The Interim Tariff Will Afford the Commission an Opportunity to Study the Cost-Effectiveness of Rooftop Solar as Compared to Other Clean Energy Resources in the Integrated Resource Plan Proceeding

Dariush Shirmohammadi, the former Director of the California Independent System Operator Corporation's Regional Transmission South Division, provided important testimony in this case about the cost-effectiveness of distributed solar generators in comparison to other clean-energy resources. Mr. Shirmohammadi appeared as a witness for the California Wind Energy Association ("CalWEA").

In his Rebuttal Testimony (Ex. CWEA-1), Mr. Shirmohammadi used the Commission's RESOLVE model to examine the cost-effectiveness of distributed solar resources. His analysis showed that, if the quantity of rooftop solar in the RESOLVE model were reduced by half from the amount that he explained is "hard wired" into the RESOLVE model, consumers in California would save about $1.26 billion per year between the years 2022 and 2045. These savings would be realized, he explained, without diminishing the achievement of SB 100's greenhouse gas reduction goals. (Ex. CWEA-1, p. 5, line 6, to p. 8, line 11.)

[55] See Figures 1 and 2 at pages 6-7 of this Reply Brief.

CalSSA argues, however, that "[t]he Commission should strive to maintain [the] level of adoption" assumed in the RESOLVE model "so that customer solar can do its part in the state's long-term goals."[56] This recommendation cannot be taken seriously in light of Mr. Shirmohammadi's analysis.

Mr. Shirmohammadi's testimony clearly demonstrates the need for further consideration by the Commission with respect to the cost-effectiveness of rooftop solar as a resource. This analysis properly should occur in the Integrated Resource Plan ("IRP") Proceeding (currently in Rulemaking 20-05-003, assigned to Administrative Law Judge Julie Fitch).

Accordingly, in conjunction with its adoption of the NEM Interim Tariff in this proceeding, the Commission should initiate in the IRP Proceeding a study of the impact of NEM and rooftop solar adoption on future electric retail rates and California's clean energy goals. Mr. Shirmohmmadi's testimony in this case already persuasively shows that continuing with the current rate of adoption of rooftop solar clearly would not be cost-effective.

In the IRP Proceeding, using the RESOLVE model and other analytical tools applied by Mr. Shirmohammadi here, the Commission will be able to (1) determine the optimal amount of rooftop solar necessary to meet California's clean energy goals cost-effectively and with minimal increase in retail rates, and (2) determine the rate impact of current rooftop solar growth assumptions on total utility spending and on retail rates for each sector (residential, commercial, and industrial).

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[56] CalSSA Opening Brief, at 107-108.

This will provide the Commission pertinent information it can use in evaluating the Successor NEM Tariffs to be filed by the utility companies.

vi. CalSSA Mischaracterizes NRDC's Equity Proposal

In its Opening Brief, CalSSA levels unfair criticism against the equity proposals by NRDC and Cal Advocates. First, CalSSA says that "In rebuttal testimony, NRDC suggests that funds would provide free solar systems to low-income customers. In that event, the proposal is similar to DAC-SASH, and shares the same risk of being undermined by the low export compensation rate NRDC proposes."[57] CalSSA argues that "If changes to the NEM tariff rules reduce the level of compensation for distributed solar generation exported to the grid, that will impose new barriers for low-income customers [...]".[58] CalSSA also argues that "export compensation rates based on avoided cost measures would reduce access to solar for low-income customers and customers in DACs by reducing bill savings and increasing the time to recover an upfront solar investment."[59]

This is not the whole story. NRDC's proposal includes several elements specifically designed for low-income customers that will help to address different barriers for solar adoption. One of these elements is an Equity Fee charged from wealthier customers that will create an Equity Fund. The Equity Fund will allow low-income customers to own -- rather than lease -- solar systems. This will enable these customers to reap the benefit of self-consumption while keeping the total export compensation for themselves. CalSSA disregards this important aspect of NRDC's proposal.

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[57] CalSSA Opening Brief, at 74-75.
[58] Ibid., at 63.
[59] Ibid., at 64.

The Equity Fund can also provide additional clean energy benefits to low-income customers, none of which are acknowledged by CalSSA. As explained NRDC's Proposal, "the money could be used to give extra discounts, in addition to the existing ones like CARE and FERA, to support more affordable bills to low-income customers".[60] NRDC also explained that "the fund could be used to support existing or new programs designed for low-income customers. One example is the Percentage of Income Payment Plan (PIPP) currently discussed by the CPUC in the disconnections proceeding (R.18-07-005)." The Equity Fund, therefore, "would help avoid disconnections and advance energy equity"[61]

The Equity Fund will allow for an up-front incentive that will immediately support growth of customer-sited renewable distributed generation among the residents of disadvantaged communities,[62] and payment exemption for fees that would be charged only to wealthier customers.[63]

Contrary to CalSSA's criticisms, those alternatives together add up to a comprehensive equity proposal that will address barriers for solar adoption among low-income customers and disadvantaged communities and provide them with significant benefits. No other proposal, neither CalSSA nor other Solar Parties' proposals, covers more equity aspects.

Section 4 of the Joint Recommendations, entitled "Equity Provisions for the NEM Successor Tariff," is the optimal proposal in this case for bringing the benefits of distributed

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[60] NRDC, *Natural Resources Defense Council Proposal for a Successor Tariff: Appendix A,* March 2021, at 10.
[61] Ibid.
[62] Ex. NRD-01, at 14.
[63] NRDC Opening Brief, Appendix 1 - Independent Parties Joint Recommendations, at 6.

solar resources to low income families and disadvantaged communities. It is a meaningful proposal and should be adopted by the Commission.

D. Scoping Memo Issue 5: Which of the analyzed proposals should the Commission adopt as a successor to the current net energy metering tariff and why? What should the timeline be for implementation?

For the reasons explained in this Reply Brief, and in NRDC's Opening Brief, the Commission should adopt the Interim Tariff and the Successor NEM Tariff as set forth in the Joint Recommendations.

III. CONCLUSION

For the reasons discussed herein and in NRDC's Opening brief, NRDC respectfully requests that the Commission adopt the Interim NEM Tariff and the Successor NEM Tariff as set forth in the Joint Recommendations submitted on August 31, 2021.

Respectfully submitted,

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