



**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF
CALIFORNIA**

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

Rulemaking 20-08-020
(Filed August 27, 2020)

**PROPOSAL OF THE COALITION FOR COMMUNITY SOLAR ACCESS TO
ESTABLISH A NET VALUE BILLING TARIFF**

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I. Introduction

In accordance with Rule 6.2 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure (“Rules”), the Coalition for Community Solar Access (“CCSA”) submits its proposal for establishing a Net Value Billing Tariff in response to Administrative Law Judge Hymes’ Ruling filed January 28, 2021 in the Order Instituting Rulemaking no. 20-08-020 (“R.20-08-020”). CCSA is a national, business-led trade organization, composed of over 60 member companies, that works to expand access to clean, local, affordable energy nationwide through the development of robust community solar programs. CCSA’s mission is to empower energy consumers, including renters, homeowners, businesses and households of all socio-economic levels, by increasing their access to reliable clean energy.

CCSA appreciates the opportunity to submit our proposal for the creation of a net value billing tariff. As explained in this proposal, a net value billing tariff will facilitate California’s goal to decarbonize the energy sector and support beneficial electrification by increasing access to renewable energy technologies in ways that benefit the grid and reduce energy burdens while

addressing stakeholder concerns about cross-subsidies in current tariffs. Joseph Wiedman (joe@jfwiedman.com) will present CCSA's proposal at the coming workshops.

II. SUMMARY

California has some of the most ambitious energy policies in the world including being powered by 100% clean energy by 2045. The Commission has instituted a host of policies, such as net energy metering, virtual net metering and meter aggregation, to remove barriers to consumer investment in renewable energy resources to green their energy supply. Each of these policies is designed to remove specific barriers to consumers participating in the energy transition.

Unfortunately, as highlighted in the SB 350 Barriers Study, significant barriers to consumer participation in renewable energy remain.¹ For example, renters still face barriers to easily access renewable energy due to the fact that they do not own the property they live in. Low-income/low-capital consumers face barriers because many programs require a significant upfront investment to participate. To address barriers to participation, what is needed is a simple, transparent billing framework upon which innovators can build businesses that meet the needs of energy consumers based on their individual situations. CCSA believes our proposed net value billing tariff will accomplish this outcome.

Under our proposed net value billing tariff, renewable energy projects up to five megawatts ("MW") interconnected to the distribution system will receive monetary credits that can be applied to the bills of other customers in the utility service territory who subscribe to the project. This net value billing tariff, designed for those who cannot participate in traditional behind-the-meter programs, would be separate and distinct from any tariff modifications the Commission creates for the current net metering program.

¹ See Why community solar solves solar's biggest problem, Arcadia (February 10, 2020) available at: <https://blog.arcadia.com/why-community-solar-solves-solar-s-biggest-problem/>.

Credits would be based upon the value of the hourly net exports for the project to which they subscribe. Participants in the tariff would take utility service under any tariff for which they otherwise qualify. To ensure consumer protection, developers of projects would be required to register with the Commission and also provide all Benefiting Accounts with a Commission-approved disclosure document prior to enrollment which explains the credits they will receive and the contracts they are signing. Moreover, developers would not be allowed to request credit scores; nor may customers be charged an termination fee if they move outside of the utility service territory or otherwise decide to no longer participate in a particular developer’s project. Further details on the net value billing tariff we are proposing are below and will be discussed in more detail in coming testimony.

CCSA’s net value billing tariff meets existing statutory requirements because it is a modified version of the Commission’s already approved virtual net metering tariff. The modifications we propose for this new tariff are designed to simplify the concept and address stakeholders concerns regarding cross-subsidies that may be attendant with currently approved tariffs that base credits on retail rates. In this regard, our net value billing proposal agrees with the E3 White Paper² that net billing is a “more objective and transparent” framework for unlocking the value of customer participation in the tariff.³ Moreover, by focusing on the value of energy produced by the facility through a Commission vetted and approved calculator, the tariff avoids concerns over cost shifting while also incentivizing developers to export energy at the times it is most valuable to the grid. Additionally, adoption of our net value billing tariff will support the California Energy Commission’s (CEC’s) 2019 Building Energy Efficiency Standard, Title 24, Part 6 (Title 24), which

² Alternative Ratemaking Mechanisms for Distributed Energy Resources in California – Successor Tariff Options Compliant with AB 327 (January 28, 2021), available as Attachment 1 to Email Ruling Introducing White Paper, Noticing Workshop on White Paper, and Providing Instructions for Successor Proposals, filed January 28, 2021 in Rulemaking no. 20-08-020.

³ Id. at pg. 16.

requires all new residential construction of three- stories or less to be powered by solar energy systems via behind-the-meter or community solar facilities.⁴

III. THE NEED FOR A NET VALUE BILLING TARIFF

A. A Net Value Billing Tariff is Needed to Advance Equity by Removing Market Barriers that Prevent Energy Consumers from Participating in the Benefits of Renewable Energy Resources

For decades, the Commission has actively worked to remove barriers to energy consumers investing in renewable energy resources. Throughout the Commission’s implementation of net energy metering, from implementing the initial program under Senate Bill 656 in 1996 through the adoption of the disadvantaged communities net metering alternatives in Decision.18-06-027, the Commission has consistently evolved policy to remove barriers to renewable energy adoption across all customer segments. Some of these programs have customers directly connected to their renewable energy system behind the customer meter while other programs facilitate participation by energy consumers who are not directly connected to a renewable energy system behind their particular customer meter. Table 1 provides a snapshot of the most prominent consumer renewable energy policies implemented by the Commission to expand consumer access to renewable energy.

Table 1. Commission-approved Consumer Renewable Energy Policies

Program Name	Eligible Customers	Uses Retail Rate-based Credit	Authorized in NEM Proceeding	MW supported
<i>Net Energy Metering (NEM)</i>	Any customer that has a suitable rooftop or space on their property.	Yes	Yes	>9,000MW ⁵
<i>Virtual NEM (non- MASH)</i>	Multi-tenant, multi-meter properties on the same, adjacent, or contiguous	Yes	Yes	~30 MW

⁴ See California Code of Regulations, Title 24, Part 1, Article 1, Section 10-115 and Part 6, Subchapter 8, Section 150.1.

⁵ See California Distributed Generation Statistics, available at: <https://www.californiadgstats.ca.gov/>.

	property			
<i>NEM Aggregation</i>	Any single customer with multiple meters, on the same, adjacent, or contiguous property	Yes	Yes	unknown
<i>RES-BCT</i>	Local governments and Universities	No	No	~111 MW ⁶
<i>MASH</i>	Multi-family affordable housing	Yes	Yes	~46.7 MW ⁷
<i>SOMAH</i>	Multi-family affordable housing	Yes	Yes	~0 MW ⁸
<i>GTSR-ECR</i>	Residential, commercial, institutional	No	No	~10 MW ⁹ (0 MW operational)
<i>GTSR-GT</i>		No	No	~153 MW ¹⁰
<i>CSGT</i>	Residential customers in DACs (at least 50% carve out for low-income)	No	Yes	41 MW ¹¹
<i>DAC-GT</i>	Low-income residential customers in DACs	No	Yes	158 MW ¹²

⁶ See IOU RES-BCT websites: (1) PGE available at: https://www.pge.com/en_US/for-our-business-partners/interconnection-renewables/larger-self-generation-programs/res-bct/res-bct.page?ctx=business; (2) SCE, available at: https://www.sce.com/sites/default/files/custom-files/RESBCTwebsitetables_020121.pdf; (3) SDG&E, available at: <https://www.sdge.com/sites/default/files/documents/RES-BCT%20Nov%2013%202020%20Update.docx>.

⁷ See 2020 California Solar Initiative Annual Program Assessment, available at: <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442465653>.

⁸ See SOMAH Semi-Annual Program Report (January 1, 2021) available at: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/Custom_Gen_and_Storage/SOMAH_SemiAnnual_Progress_Report.pdf (~36.9 MW of completed applications. Zero projects completed).

⁹ See Green Tariff/Shared Renewables (GTSR) Program website, available at: <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442465653>.

¹⁰ Id.

¹¹ See CPUC Decision 18-06-027, p.64 available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M216/K789/216789285.PDF>.

¹² Id. at p.53.

<i>DAC-SASH</i>	Low-income homeowners located in DACs	Yes	Yes	~2.1 MW ¹³
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As is readily evident, the Commission’s net metering program has been wildly successful supporting over 9,000 MW of customer-sited renewable energy systems. Beyond net energy metering, the programs identified in Table 1 are focused on one of two primary constructs:

1) solar projects on multifamily housing property whereby the generation can be credited toward the utility bills of the property’s individually metered tenants, such as virtual net metering (VNM), MASH, and SOMAH, or;

2) a solar project that serves a single customer that has multiple meters (on the same, adjacent, or contiguous property) such as NEM aggregation and RES-BCT.

Each of these tariffs is important to addressing these two barriers to consumer participation, but none has proven flexible enough to facilitate broad-scale adoption of renewable energy technologies by consumers who are not fortunate enough to own a home, have suitable roof or property upon which to place a renewable energy facility, or live in a housing development where the landlord has decided to provide renewable energy to their tenants. Thus, while there is a suite of policies available, these tariffs still remain narrowly focused which has stymied significant overall growth in renewable energy opportunities for consumers. For example, at the end of 2019 the VNM (non-MASH) program had about 30 MW, or less than half a percent of the state’s overall NEM program capacity (~9,000 MW in IOU territory alone).¹⁴ This paltry growth comes despite the fact that VNM has been available since 2012.¹⁵ The recently approved Community Solar – Green Tariff

¹³ See Semi-Annual Progress Report (July 2020), available at: <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442466382>.

¹⁴ CSI Annual Report – 2020, available at: <https://www.cpuc.ca.gov/csireports/>.

¹⁵ See Resolution E-4481 available at: https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_RESOLUTION/165005.PDF.

(CSGT) and Disadvantaged Communities – Green Tariff DAC-GT programs (41 MW and 158 MW respectively) are positive steps to address inequities in solar access. Unfortunately, these programs are just getting underway with IOU tariffs approved in Resolution E-4999 and CCA program proposals pending before the Commission. CCSA anticipates that these programs will help address barriers to accessing renewables within identified disadvantaged communities, but these programs suffer from similar problems as other current programs – the overall size¹⁶ of the programs is very small compared to the total addressable market, the programs rely on limited greenhouse gas auction revenues and ratepayer funds to support them, and the programs provide no programmatic incentive for installed projects to be grid responsive.

The Legislature has also stepped in periodically to push forward programs that remove barriers to renewable energy resources. For example, the Legislature established the Green Tariff Shared Renewables (“GTSR”) and Enhanced Community Renewables (“ECR”) programs through Senate Bill 43 (Wolk 2013) “to build on the success of the California Solar Initiative by expanding access to all eligible renewable energy resources to all ratepayers who are currently unable to access the benefits of onsite generation.”¹⁷ Unfortunately, these two programs have fallen far short of their legislative intent to create a “large, sustainable market for offsite electrical generation.”¹⁸ Since launching the programs nearly half a decade ago, only about 163 MW (27%) of the legislatively enabled 600 MW has been procured by investor-owned utility (IOU) customers.¹⁹ Moreover, this growth has been almost entirely in the Green Tariff (GT) portion of the program, whereas only 10 MW of procurement has occurred in any of the IOU ECR programs despite significant

¹⁶ The size of these programs was limited to the number of megawatts necessary to bring these communities to par with other communities which is important but does not address the size of the addressable market.

¹⁷ Senate Bill 43 (Wolk 2013) PU Code 2831(b), available at http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201320140SB43.

¹⁸ PU Code Sec. 2831(g).

¹⁹ See Green Tariff/Shared Renewables (GTSR) Program website, available at: <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442465653>.

implementation efforts by stakeholders and the Commission. The failure of the ECR program to generate any significant installed MWs is due to poor economics and a volatile and unpredictable credit rate which makes financing prohibitively risky.²⁰ Moreover, the ECR tariff is limited to bundled customers of the investor-owned utilities and linked to customer rates rather than value to the grid. Separate from this proceeding, the Commission should modify that program to address the statutory goals of the program, but it will only go so far in providing access, particularly as more and more customers are served by community choice aggregators and therefore are ineligible for the program.

The narrowness of eligibility for NEM, VNM and DAC programs and lack of viability of the GTSR (particularly ECR) programs has resulted in a substantial gap in solar participation opportunities commensurate with an onsite solar experience and benefits. Renters (residential and non-residential), in particular, continue to face barriers to accessing solar benefits. The National Renewable Energy Laboratory (“NREL”) estimates that, nationally, nearly 50% of households and businesses are unable to host a PV system on-site because they do not own their buildings or have access to sufficient roof space.²¹ Similarly, the recent NEM 2.0 Lookback Study found that installations were strongly correlated with homeownership.²² The lack of equitable opportunities for participation in solar benefits in California falls short of the goals of AB 327 (Perea 2013) and SB 43 (Wolk 2013) as well as the Commission’s goal of expanding access to solar.

²⁰ Concerns with the ECR rate structure have been raised throughout the regulatory process that created the GTSR program. The Solar Energy Industries Association (SEIA) detailed the anticipated challenges, which have now proven true, in comments filed in 2015, found here: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M154/K225/154225476.PDF>.

²¹ Shared Solar: Current Landscape, Market Potential, and the Impact of Federal Securities Regulation, NREL. April, 2015. <https://www.nrel.gov/docs/fy15osti/63892.pdf>.

²² Net-Energy Metering 2.0 Lookback Study (January 2021) at pg. 35, available at: <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442467448>.

B. A Net Value Billing Tariff is Needed to Operationalize the California Energy Commission’s (“CEC”) Title 24 Regulations and California’s Zero Net Energy (“ZNE”) Goals.

The lack of a viable tariff that allows energy consumers to participate in the benefits of renewable energy is becoming increasingly salient in light of the CEC efforts to promote the benefits of solar energy via the 2019 Building Energy Efficiency Standard (“Title 24”) which requires all new residential construction of three- stories or less to be powered by solar energy systems.²³ Title 24 allows for either behind-the-meter solar or community solar to meet this requirement and applies to new residential construction whose permits are pulled in 2020 or later.²⁴ Builders are not able to exercise the flexibility created by the CEC, without the California Public Utilities Commission creating tariffs that yield customer savings that are comparable to those realized by the customers with solar on their roof.²⁵ This policy, combined with California’s building electrification goals, steep housing cost, and housing shortages, create an imperative for a flexible and benefits-based program that can provide community solar options to support builder compliance with Title 24, as envisioned by the CEC regulations. As discussed above, current programs developed by the Commission to support consumer participation in off-site solar energy systems are not positioned to play a significant role in supporting this new construction mandate. Current programs have significant limitations on, among other things, eligibility, siting, and bill crediting rates and mechanisms. Others require customers to pay a premium to participate. Each of these limitations undermines the ability to use existing programs to meet the requirements of the CEC’s community solar program option.

²³ See Title 24, Section 150.1(b)(1) available at: <https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf>.

²⁴ See Title 24, Section 150.1(b)(1) and Section 10-115.

²⁵ See Title 24, Section 10-115(a)(2) and (a)(3).

Further, the ZNE goals including ZNE expansions such as 50% of major renovations in State buildings starting in 2025 and all new commercial construction (and 50% of existing commercial buildings) in 2030 will not happen if new mechanisms for participation in renewable energy are not instituted.²⁶ The expansion of the ZNE goals to more categories of buildings will only increase the need for a viable, benefits-based net value billing tariff. Behind-the-meter solar programs will not support all of the market segments the CEC’s Title 24 regulations cover. Some commercial buildings, like offices and factories, will have loads that are too high for behind-the-meter solar, while available roof space and light loads will make facilities like warehouses underutilized if systems are sized to serve loads. To address the needs of residential builders now, and commercial builders in the future, CCSA proposes our net value billing tariff in this proceeding.

IV. CCSA’S NET VALUE BILLING PROPOSAL

In this section, consistent with the guidance provided by ALJ Hymes,²⁷ we describe the main aspects of CCSA’s proposed net value billing tariff. Our proposal is modeled on the net billing concept described in the E3 Whitepaper²⁸ and CCSA’s experience developing community solar programs across the country including New York’s Value of Distributed Energy Resources (“NY VDER,” or the “Value Stack”).²⁹ The NY VDER, established in March 2017, “compensates projects based on when and where they provide electricity to the grid and compensation is in the form of bill credits.” It is the foundation for a successful tariff program in New York, which compensates onsite non-residential projects larger than 750 kilowatts and all remote metered projects, including those

²⁶ See <https://www.cpuc.ca.gov/zne/> for details on ZNE goals.

²⁷ Email Ruling Introducing White Paper, Noticing Workshop on Whitepaper, and Providing Instructions for Successor Proposals, Instructions 2a-2k, pp. 4-5.

²⁸ E3 White Paper at pgs. 34-35.

²⁹ New York State Energy Research and Development Authority (NYSERDA). available at: <https://www.nyserda.ny.gov/All%20Programs/Programs/NY%20Sun/Contractors/Value%20of%20Distributed%20Energy%20Resources>.

qualifying as Community Distributed Generation (“CDG”) for the energy and benefit they provide to the grid.³⁰ The NY VDER model has been successful in expanding access to renewable energy while maintaining a transparent and value-based compensation mechanism.

CCSA proposes to create a California version of the NY VDER tariff, using California’s avoided costs derived in part from the Avoided Cost Calculator (ACC).³¹ While we reference community solar in our discussion herein, the proposed tariff will be open to any renewable distributed energy resource. The compensation value would be administered through net billing and be based on time-differentiated pricing that rewards delivery of power at times of greatest value to the grid.

A. Elements of CCSA’s Net Value Billing Tariff

1. Export compensation structure(s): Net billing for the value exported energy.

Description of methodology and inputs for calculating export compensation price(s):

Under our proposal, facilities would be paid based on the value they provide to the grid. For energy, actual CAISO Day Ahead Zonal Prices will be used because these prices are readily available from the market. The other elements of the “value stack” – generation capacity, transmission capacity, distribution capacity, GHG rebalancing, and GHG adder – will have fixed values based off of the ACC values. Thus, the total value stack includes the following elements, which will be grossed up for losses based on the loss factors in the ACC:

- Energy: Hourly CAISO Day Ahead Zonal Price
- Generation Capacity: ACC generation capacity

³⁰ See The Value Stack: Compensation for Distributed Energy Resources, available at: <https://www.nyserda.ny.gov/-/media/NYSun/files/value-stack-overview.pdf>, p. 1-2

³¹ Details on the 2020 Distributed Energy Resources Avoided Cost Calculator Documentation are available at https://www.ethree.com/public_proceedings/energy-efficiency-calculator

- Transmission and Distribution (“T&D”): ACC transmission and ACC distribution

- Environmental Value: ACC GHG rebalancing and ACC GHG adder

2. Rate structure(s): Participants (which can be a Generator Account³² and/or Benefiting Account³³) are allowed to choose any otherwise applicable rate for their customer class.

3. Application of secondary customer benefits: All current exemptions available for customer-generators would apply to the participants – waiver of standby charges, departing load charges, and other discriminatory fees. However, facilities would pay for interconnection costs related to the facility.

4. Need for an Environmental Justice and Low-Income Market Transition

Credit: It is well documented that solar adoption among disadvantaged communities and low-income families has significantly lagged overall solar penetrations. As a matter of equity, this situation needs to change as all energy consumers pay for Commission-approved renewable energy programs and should, therefore, have access to renewable energy programs they help fund. Accordingly, we propose that an Environmental Justice and Low-Income Market Transition Credit (EJLI-MTC) be available to developers that locate facilities within disadvantaged communities and have at least 50% of the facility capacity subscribed by CARE/FERA program-

³² A “generator account” consists of a renewable electrical generation facility (“REGF”) sized no larger than five megawatts which is interconnected to the investor-owned utilities’ distribution system through a single meter. A generator account may have load beyond that required by the REGF who takes service with the generator owner or their designee as the customer of record.

³³ A “benefiting account” is an individually metered, electric account serving a distribution customer with no other generating facility interconnected with the distribution utility on the account and does not participate in any other virtual net metering program or RES-BCT program.

eligible participants, CalFresh/SNAP, LIHEAP, Head Start and other income-based assistance programs.

5. Terms of service and billing rules:

- a. Eligibility:** Participants may be in any customer class and may be a bundled or unbundled customer. Benefiting Accounts must also be in the same investor-owned utility service territory as the facility.
- b. Duration of service:** The tariff would not require Benefiting Accounts to subscribe to a minimum duration of service. The tariff would be available to the Generator Account for twenty-five years from the date of commercial operation.
- c. True-up period:** Credits would be rolled over indefinitely until utilized. If a customer leaves utility service, all credits on that customer's account are forfeited. Customers may transfer their subscription to a new account within the same distribution utility service territory. In the instance where there is unsubscribed generation capacity, the Generator Account may bank the credits and allocate them to a Benefiting Accounts within two years.
- d. Netting interval:** Monthly netting of credits (in dollars) on Benefiting Accounts' utility charges with indefinite rollover.
- e. Subscriptions –** Enrollment of a Benefiting Account in the program would be a capacity-based subscription similar to how onsite renewable energy works today.
 - i. Maximum subscription size:** Sized no larger than electricity consumption level of customer's 12-months of historic usage (kWh). If 12-months of historical usage are unavailable, an estimate can be

used.

- ii. **Customer mix:** A Facility must have 50% of its capacity serving residential and small commercial customers (subscription sizes less than 25 kW)

6. **Consumer Protection** – additional details in Sec. C(3) below.

7. **Fees for exiting service:** Termination fees would be prohibited for low- and moderate- income customers eligible for the Environmental Justice and Low-Income Market Transition Credit (enrollees in CARE/FERA program, CalFresh/SNAP, LIHEAP, Head Start and other income-based assistance programs).

8. **Use of credit scores:** Use of credit scores to determine eligibility would be prohibited.

9. **Disclosures:** Benefiting Accounts will receive a Commission-approved disclosure form before being enrolled.

10. **Registration:** Facility Owner³⁴ must be registered with the Commission prior to enrolling customers.

11. **Crediting mechanics**

- a. **Facility enrollment:** Facility would be enrolled in the net value billing tariff upon request of the Facility Owner once the Facility Owner has executed an interconnection agreement with the relevant utility and the Facility Owner demonstrates achievement of any necessary non-ministerial permits such as a permit from a local planning board.
- b. **Allocation of Credits:** Each month, the utility receives a report from the

³⁴ “Facility Owner” means the entity with legal control of the physical asset and legal responsibility for managing the asset within the net value billing program, including assumed responsibility for any contractors that assist in project management.

Facility Owner detailing how credits should be allocated to Benefiting Accounts. The utility would apply credits to Benefiting Accounts' bills in the following month.

- c. **Simplified Customer Billing:** At the request of the Facility Owner, the utility would deduct the customer's subscription price from the customer bill credit prior to crediting and remit the subscription price to the Facility Owner.

12. Treatment for systems 1 megawatt and larger: System size is capped at five MW_{ac}.

13. Addressing variations on the current net energy metering tariff: Existing VNM-based tariffs such as VNM, RES-BCT and others would not be changed as a result of development of this tariff. CCSA proposes a simplified net value billing tariff to create a transparent, flexible platform to advance access to renewable energy to support equity, achievement of state renewable energy goals, and CEC building code compliance pathways.

14. Any modifications to existing smart inverter requirements for systems taking service on the successor tariff: No.

15. Whether and how energy storage and other distributed energy resources are integrated into the tariff: Energy storage would be incentivized for inclusion in projects due to the value of energy credit structure, which strongly incentivizes on-peak generation in the evening hours. Participants would continue to have strong incentives to invest in DERs because they would stay on their otherwise applicable rate schedule.

16. Any safety issues related to the successor tariff: No. Interconnection would occur under the existing Rule 21 interconnection process.

17. Consistency with Commission decisions and related statutes:

CCSA believes our proposal is compliant with existing California law and builds on existing Commission decisions that recognize barriers to participation in renewable energy programs that solely focus on on-site, behind-the-meter frameworks. Moreover, CCSA's proposal would operationalize current CEC regulations and, thus, directly support California's ZNE and building energy efficiency requirements. Collaboration between the CEC and Commission to advance California's energy policies has a long history. For example, the two commissions collaboratively developed the California Solar Initiative ("CSI") which was implemented in D.06-01-024 to promote the benefits of solar energy and transform the solar market to one that does not need incentives to be cost effective based on its existing authority.³⁵ The CSI proved wildly successful in jumpstarting the solar industry and driving down the costs of solar energy for energy consumers. Since the launch of the CSI, the Commission has taken consistent action to develop additional programs and policies, such as meter aggregation and virtual net metering, to remove barriers to customer participation.³⁶ Since the adoption of VNM in D.08-01-036, the Commission has expanded the use of VNM based on staff recommendations and the Commission's experience with the tariff.³⁷ Commission staff has also recognized how VNM can be utilized to remove barriers to participation in the Commission's

³⁵ See D.06-01-024 at pg. 4. See Appendix A for the CEC and Commission staff CSI proposal. Subsequent legislation, SB 1 and AB 2723, made modifications to the program adopted by the Commission, but left the overall framework and rationale for the program intact.

³⁶ See D.08-10-036 (October 16, 2008) (authorizing virtual net metering for affordable housing),

³⁷ See D.11-07-013 (July 14, 2011) (adopted staff recommendations to expand virtual net metering to the general multi-tenant market with a service delivery point limit and removed the service delivery point limit for MASH program participants (multi-tenant low-income housing)); and D.16-01-044 (January 28, 2016) (removing service delivery point limit for general multi-tenant market).

renewable energy programs and has proposed Neighborhood VNM to meet the requirements of Section 2827.1.³⁸

Contrary to prior assertions that virtual net metering is retail wheeling, virtual net metering is clearly not the type of tariff that the Commission declined to adopt in D.03-01-068.³⁹ Parties in D.03-01-068 were asking the Commission to adopt a distribution-only access tariff which would have allowed customers installing distributed generation to avoid paying for transmission costs. The virtual net metering tariffs approved by the Commission to date and our proposal herein make no such request. Quite the contrary, under our proposal, participants would continue to pay their otherwise applicable charges, including charges for transmission, and would receive a bill credit for participating in the net value billing tariff. Most importantly, the cost shifting concerns that have animated much of the opposition to virtual net metering historically are not attendant under our proposal because Generating Accounts will only generate credits based upon the value the facilities provide to the grid based on the timing of their exports.⁴⁰ CCSA believes our proposal is consistent with prior Commission decisions concerning virtual net metering while also addressing the concerns that have animated opposition from stakeholders in the past. Given the Commission's past decisions adjusting programs and policies in ways that promote access and equity, we believe that the Commission possesses ample authority pursuant existing law, Commission decisions and Public Utilities Code Sec. 701 to authorize our proposal as a means to address barriers to advance the California's equity and decarbonization goals.

³⁸ See, Energy Division Staff Paper Presenting Alternatives to the NEM Successor Tariff or Contract for Residential Customers in Disadvantaged Communities in Compliance with AB 327, CPUC Energy Division (June 3, 2015), pgs. 2-12 – 2-16 available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K410/152410786.PDF> (Attachment 2).

³⁹ See D.03-01-068, pgs. 31-37 (discussing distribution-only retail sales tariff).

⁴⁰ See, e.g., Opening Comments of The Utility Reform Network on Proposed Decision and Alternate Proposed Decision Adopting Alternatives to Promote Solar Distributed Generation in Disadvantaged Communities, filed March 12, 2018, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M212/K177/212177402.PDF>.

B. Further Details on the Calculation of the Net Export Rate

As noted above, our goal is to create a tariff that compensates facilities for the value they provide to the grid. To do so, we develop a “value stack” based off of the currently approved Avoided Cost Calculator.

For Energy, day ahead hourly CAISO Zonal Price (NP15, SP15, and ZP26) would be used with an applied ACC loss factor.

For Generation Capacity and T&D Capacity, the ACC hourly values would be summed up into annual values for each of the 25 years. The T&D Capacity values would vary by IOU and climate zone, but the capacity values would only vary by IOU.⁴¹ These annual Generation Capacity and T&D Capacity values would be levelized over 25 years and allocated to the peak hours of 5 pm to 9 pm PST (6 pm to 10 pm PDT) weekdays in July through September for each year to create peak prices for the tariff. Thus, energy delivered under the proposed tariff in the peak period will be compensated for Generation Capacity and T&D Capacity based on a flat \$/kWh rate, whereas energy delivered in the off-peak will receive no Generation Capacity or T&D Capacity compensation.

Our proposal would use a simplified value structure, rather than 8760 hourly data points, to create an understandable rate for developers and participants. We propose doing this by using the same daily peak period for Generation Capacity, T&D Capacity, and Environmental Value. The peak period (July through September weekdays, 5:00-9:00 PM PST) was chosen because it captures over 90% of the hourly 2020 capacity value in the ACC. The four-hour window is also compatible with current Resource Adequacy market rules that require a four-hour duration battery and at least four-hour demand response duration to receive full capacity value.⁴²

⁴¹ 2020 Distributed Energy Resources Avoided Cost Calculator Documentation, p. 63 available at https://www.ethree.com/public_proceedings/energy-efficiency-calculator. Information on Climate Zones is available at:

<https://www.pge.com/myhome/edusafety/workshopstraining/pec/toolbox/arch/climate/index.shtml>.

⁴² “2021 Filing Guide for System, Local and Flexible Resource Adequacy (RA) Compliance Filings,”

Similar to the Generation Capacity and T&D Capacity, Environmental Value ACC hourly values would be summed up, redistributed and levelized. However, unlike Generation Capacity and T&D Capacity, the Environmental Value would be given a non-zero off-peak price, as there are benefits to reducing GHG emission at all hours. The ratio between the peak and off-peak price would be set based on the ratio of the average hourly avoided GHG adder and GHG rebalancing avoided cost rates in the ACC for the select peak and off-peak periods. Because the avoided GHG emissions rates in the ACC do not vary by utility, the Environmental Value would be the same for every IOU.

Table 2: Summary of Proposed Value Elements

Value Element	Source	Peak Period	Location Variation	Escalation	Peak to Off-Peak Price Ratio
Energy	Day Ahead Price and ACC Losses	N/A	By Zone	N/A	Will reflect actual prices
Generation Capacity	ACC Generation Capacity	5 pm - 9 pm PST on weekdays from July - September	By IOU	Levelized over 25 years	Zero off-peak price
Transmission and Distribution Capacity	ACC Transmission and ACC Distribution	5 pm - 9 pm PST on weekdays from July - September	By IOU and Climate Zone	Levelized over 25 years	Zero off-peak price
Environmental Value	ACC GHG Rebalancing and ACC GHG Adder	5 pm - 9 pm PST on weekdays from July - September	None	Levelized over 25 years	Average peak to off peak avoided cost ratio

Note that some ACC categories were excluded from the value stack. Methane leakage value was excluded as it reflects the benefits of reducing leaks from the natural gas distribution system due

<https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442466394>.

to large scale building electrification.⁴³ GHG Cap and Trade value was excluded because it should be reflected in the day ahead CAISO prices.⁴⁴ Ancillary services value was excluded because it was small and was unlikely to be relevant for most community solar projects.⁴⁵

The rates received by qualifying projects would be set based on the effective tariff rate at the time of execution of an interconnection agreement with the utility and would be fixed for a term of 25 years, beginning at the date of the facilities' commercial operation. A term of 25 years provides the price certainty necessary for projects to be financeable and is reasonable. Further, 25 years reflects the typical minimum useful life of a solar PV system,⁴⁶ and is the solar PV lifetime used in the NEM 2.0 Lookback Study as well as the VDER program tariff structure.⁴⁷

Commission-approved avoided costs are expected to change over time, and, thus, the tariff rates will need to be updated in the future and would apply to future projects as they are developed. We propose that future rates be updated when the ACC is updated by the Commission.

C. Further Details on the Environmental Justice and Low-Income Market Transition Credit (EJLI-MTC).

The California Energy Commission's SB 350 Barriers Report, published in 2016, documented the structural and policy barriers preventing low-income and disadvantaged communities from realizing the benefits of California's clean energy drive.⁴⁸ A focused credit targeted at low- and moderate- income participants can offset the barriers to participation by

⁴³ 2020 Distributed Energy Resources Avoided Cost Calculator Documentation, ("ACC Documentation"), p. 71 available at https://www.ethree.com/public_proceedings/energy-efficiency-calculator/.

⁴⁴ ACC Documentation, p. 10.

⁴⁵ ACC Documentation, p. 16.

⁴⁶ Useful Life: Energy Analysis (NREL) available at: <https://www.nrel.gov/analysis/tech-footprint.html>.

⁴⁷ Net-Energy Metering 2.0 Lookback Study, p. 63, available at:

<https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442467448>; Niagara Mohawk Power Corporation PSC 220 Tariff for Electric Service, Leaf 220 revision 6, available at:

<https://www.nationalgridus.com/upstate-ny-business/rates/tariff-provisions>.

⁴⁸ California Energy Commission, "SB 350 Low-Income Barriers Study, Part A - Commission Final Report", Docket 16-OIR-02, December 16, 2016.

members of these communities and incentivize developers to design inclusive offerings that will significantly accelerate solar development in disadvantaged regions and improve the equitable distribution of clean energy benefits across California.

Of the 9,000MW of NEM installed in California, just 11-12% has been developed in disadvantaged communities, despite these areas constituting 25% of the state’s population.⁴⁹ Families in disadvantaged areas have received less than half of the benefits of clean energy development that would have been equitably allocated to them based on their proportional share of the population. The legislature and Commission have sought to close this significant gap. The GTSR program allocated a minimum of 17% of program capacity for the 20% most disadvantaged areas of the state.⁵⁰ Similarly, DAC-SASH, DAC-GT, and CSGT are reserved for the 25% most disadvantaged census tracts, plus “22 census tracts in the highest 5 percent of CalEnviroScreen’s Pollution Burden, but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data.”⁵¹ Yet these policies have failed to spur sufficient solar growth in disadvantaged areas to remedy historical shortfalls. This is true for NEM as well, through which the large majority of distributed solar has come online. An equitable distribution of distributed solar through NEM to-date would have resulted in solar development for disadvantaged areas proportional to their representation in the state. That means that 25% of the NEM capacity installed in each utility territory would have and should have been installed in disadvantaged communities, compared to the 11-12% that has been installed to-date.⁵² To rapidly address these shortcomings, we propose that an Environmental Justice and Low-Income Market Transition Credit (EJLI-MTC).

⁴⁹ Net-Energy Metering 2.0 Lookback Study, Verdant Associates, January 21 2021, page 37.

⁵⁰ Green Tariff/Shared Renewables Program (GTSR), <https://www.cpuc.ca.gov/general.aspx?id=12181>.

⁵¹ Solar in Disadvantaged Communities, <https://www.cpuc.ca.gov/General.aspx?id=6442461840>.

⁵² Low-income families represent approximately 27% of customers SCE and 29% in PGE. PGE has over 1.4 million customers on CARE/FERA out of 4.8 million residential customers. SCE has 1.2 million customers on CARE/FERA out of 4.4 million residential customers as of 2017. See: https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-

Eligibility: The EJLI-MTC would be available to developers that locate facilities within disadvantaged communities and have at least 50% of the facility capacity subscribed by CARE/FERA program-eligible participants, CalFresh/SNAP, LIHEAP, Head Start and other income-based assistance programs.

Structure of the EJLI-MTC: The EJLI-MTC would be a credit adder above the standard value stack compensation inputs. New York's MTC was calculated as the difference between residential retail rates and VDER rates in each utility territory.⁵³ California's EJLI-MTC would be calculated the same way: residential retail rate less value stack compensation. The retail rate would include all volumetric components of the residential service electricity rate that are effective on the date of program implementation. For avoidance of doubt, this includes generation and delivery rates, with delivery constituting distribution charges, transmission charges, and all other volumetric delivery charges identified in the utility tariffs.⁵⁴

Implementation of the EJLI-MTC: PG&E, SCE, and SDG&E will have a megawatt target representing the difference between the NEM capacity that would have accrued to disadvantaged communities proportional to their share of the population, and the utility's actual NEM installed in disadvantaged areas. Based on available data, there would be statewide target of 1,229MW, as shown in Table 3.

[assistance/care/care.page](#), <https://energized.edison.com/stories/cool-savings-available-to-income-qualified-customers>, EIA Form 861.

⁵³ State of New York Public Service Commission, Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters, March 9, 2019, pp. 122-134.

⁵⁴ PGE: https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_A-1.pdf. An annual retail rate is determined by weighting summer and winter rates by a standard solar profile in PGE territory.

SCE: https://library.sce.com/content/dam/sce-doelib/public/regulatory/tariff/electric/schedules/residential-rates/ELECTRIC_SCHEDULES_D.pdf.

SDG&E: http://regarchive.sdge.com/tm2/pdf/ELEC_ELEC-SCHEDS_DR.pdf.

Table 3: EJLI-MTC Megawatt Targets⁵⁵

Utility	NEM Installed	Equitable DAC NEM Allocation	Actual DAC NEM Installed	EJLI-MTC MW Target
PG&E	4,681	1,170	538	632
SCE	3,044	761	350	411
SDG&E	1,381	345	159	186
Total	9,106	2,277	1,047	1,229

An annual EJLI-MTC budget would then be calculated for each utility based on their allocated capacity, the EJLI-MTC, and a standard solar profile in that utility territory. As projects are developed that meet the criteria to access the EJLI-MTC, the budget for that project would be reserved for 25 years which is the length of the term for the project.

D. How CCSA’s Net Value Billing Tariff Meets the Guiding Principles Adopted by the Commission in D.21-02-007 and Concerns Raised in the White Paper

1. A successor to the net energy metering tariff should comply with the statutory requirements of Public Utilities Code Section 2827.1.

While not directly contemplated by Sec. 2827.1, a net value billing tariff is consistent with current Commission decisions regarding virtual net metering. A net value billing tariff would comply with many of the goals of Sec. 2827.1, including supporting sustainable growth within California, ensuring the costs and benefits of the tariff are based on the costs and benefits of the renewable generation facility and that the total benefits to all customers and the grid are approximately equal to the costs, and provide an alternative for customers in disadvantaged communities. Each of these aspects of Sec. 2827.1 are directly supported by the net value billing

⁵⁵ NEM Installed data are from <<https://www.californiadgstats.ca.gov/charts/nem>> as of November 2020. Equitable DAC NEM Allocation is 25% of NEM installed. Actual DAC NEM Installed is 11.5% of NEM installed (see Net-Energy Metering 2.0 Lookback Study, Verdant Associates, January 21 2021, page 37). EJLI-MTC Megawatt Target is Equitable DAC NEM Allocation minus Actual DAC NEM Installed.

tariff because the credits generated by the facility are directly tied to the benefits produced by the facility. By moving compensation away from being based on retail rates and to the value provided by the system, the net value billing tariff directly bases and aligns benefits with costs as contemplated by Sec. 2827.1. This alignment supports sustainable growth by minimizing impacts on nonparticipating customers by basing and aligning benefits with costs.

More broadly, development of an equitable, transparent, and flexible framework that can support product offerings that meet the needs of California's diverse energy consumers, our net value billing tariff can drive numerous state policies forward. By dramatically decarbonizing participants' energy supply, a net value billing tariff would directly accelerate decarbonization of energy. To the extent tariff participants electrify further over time, they will be electrifying their transportation, heating, cooking and other home facilities while utilizing renewable energy under this tariff.

2. A successor to the net energy metering tariff should ensure equity among customers.

Various parties in the proceeding have taken differing views on what equity among customers means or should encompass. CCSA's view on equity is that equity is established when: 1) all customers have access to renewable energy resources via a value-based tariff that utilizes a simple, transparent accounting; and 2), when benefits to ratepayers are commensurate with the cost of the program, which is achieved through the value based crediting approach. Moreover, by allowing multiple stakeholders to build program offerings that meet the needs of the consumer segments they want to target with products those consumers want, this tariff will ensure that all market segments can be reached. Some customers may want participation options that do not require upfront capital investments while other customers may want the exact opposite opportunity. An equitable tariff will allow diverse offerings to meet all consumers where they are at.

3. A successor to the net energy metering tariff should enhance consumer protection measures for customer- generators providing net energy metering services.

CCSA agrees that consumer protection should be a feature of consumer program offerings. When consumer protections are based off experience with what has worked and not worked in other states, the consumer protections can support also a better consumer experience while also maintaining protections. Based on CCSA’s experience with community solar in other states, we believe four tariff elements encompass best practices in promoting consumer protection while also supporting a better consumer experience overall.

First, CCSA believes Facility Owners utilizing the tariff should be registered with the Commission. Registration ensures transparency between developers, other market stakeholders, and the consumer. The Commission should adopt standard registration forms and specific filing requirements. Energy Division Staff should propose forms using forms from other states as a starting point. These forms collect data on the company, its management, any former or pending legal actions against the firm or principals, and its materials for marketing their program to customers. New York⁵⁶, Maryland⁵⁷, and Maine⁵⁸ are three examples that Staff could use as reference points.

Second, standardized disclosure form is a foundational element of consumer protection. CCSA members’ experience enrolling participants across the country has led to the development of best practices related to consumer disclosure forms. This form should be presented for the

⁵⁶ New York Department of Public Service, CDG (Community Distributed Generation) developer registration form. Available at: [https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/eab5a735e908b9fe8525822f0050a299/\\$FILE/DER%20Supplier%20Registration%20Form%206.19.2018.pdf](https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/eab5a735e908b9fe8525822f0050a299/$FILE/DER%20Supplier%20Registration%20Form%206.19.2018.pdf).

⁵⁷ Maryland Public Service Commission, “Subscriber Organization Application for Authorization to Participate in the Community Solar Energy Generating System (“CSEGS”) Pilot”, available at: <https://www.psc.state.md.us/electricity/wp-content/uploads/sites/2/SO-Application-4-27-17-clean.pdf>.

⁵⁸ Maine Public Utilities Commission, “Registration Form for Distributed Generation (DG)/Net Energy Billing (NEB) Project Sponsors and Related Entities”, available at: <https://appengine.egov.com/apps/me/renewableenergy>.

participant’s review prior to enrolling in the net value billing tariff. The form helps to provide an overview of the benefits associated with enrolling in this tariff, and to outline basic contract terms. The standardized form used by all participating developers should contain the following elements: the Facility Owner’s contact information, a description of the program in which the consumer is enrolling, subscription contract summary, and a bill credit and example benefits calculation. New York⁵⁹, Massachusetts⁶⁰, Maryland⁶¹, Maine⁶², and New Jersey⁶³ have all developed disclosure forms which follow this format. As part of the workshop to discuss the registration process, Staff should propose a disclosure form.

Third, all developers utilizing the tariff should be prohibited from including a “termination fee” for certain program participants if they chose to unenroll for any reason. Research demonstrates that approximately 10% of U.S. residents move each year so some community solar providers are developing offerings that do not require termination fees.⁶⁴ To spur continued evolution in community solar service offerings while protecting the most vulnerable customers, CCSA proposes that low- and moderate- income participants should not face termination fees as described above.

⁵⁹ New York Department of Public Service, “CDG Customer Disclosure Form”, available at [http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/eab5a735e908b9fe8525822f0050a299/\\$FILE/New%20York%20Community%20Distributed%20Generation%20Disclosure%20Form%204.17.19.docx](http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/eab5a735e908b9fe8525822f0050a299/$FILE/New%20York%20Community%20Distributed%20Generation%20Disclosure%20Form%204.17.19.docx).

⁶⁰ Massachusetts Department of Energy Resources, “SMART Participant Customer Disclosure Form (Community Shared Solar)”, available at: <https://www.mass.gov/doc/community-solar-smart-customer-disclosure-form-final/download>.

⁶¹ Maryland Public Service Commission, “Community Solar Contract Disclosure Form and Instructions”, https://www.psc.state.md.us/wp-content/uploads/Community-Solar-Contract-Disclosure-Form-and-Instructions_04162018.pdf.

⁶² Maine Public Utilities Commission, “Consumer Disclosure Form for Marketing Net Energy Billing Projects in Maine”, available at: <https://www.maine.gov/mpuc/electricity/renewables/documents/NEB-Consumer-Initial-Disclosure-finalv0420.docx>.

⁶³ New Jersey Board of Public Utilities Commission, “Community Solar Subscriber Disclosure Form”, available at: <https://njcleanenergy.com/files/file/CommunitySolar/Community%20Solar%20Subscriber%20Disclosure%20Form%20July%202020.docx>.

⁶⁴ See Community solar financing: Redefining risk, Arcadia Power (May 2019), available at: https://blog.arcadia.com/assets/Communitysolar_Redefiningrisk_Arcadiapower.pdf.

Finally, requiring or using a participant’s credit score as a determining factor of eligibility for enrollment should be prohibited. Utilization of credit scores to determine eligibility will result in a barrier to participation for significant portions of energy consumers. For example, nineteen percent of American adults are “credit invisible” meaning they do not have credit records with nationwide credit reporting agencies.⁶⁵ Research also demonstrates that low-income households, African Americans, young people, and women are disproportionately impacted by reliance on credit scores.⁶⁶ Thus, reliance on credit scores would be directly at odds with expanding access to renewable energy through our proposal. While some developers still require credit scores, research suggests that they actually provide little assurance to community solar developers as they are not good predictors of ability to pay utility bills.⁶⁷ Such a prohibition could therefore protect communities typically disadvantaged by the use of such scores without materially impacting the ability of projects to be financed.

CCSA members have been leaders in advocating programs that move project financiers away from these outdated methods of risk mitigation such as termination fees and credit checks.⁶⁸ As we stated earlier in this proposal, our aim is to ensure that all market segments are reached with this tariff. Accordingly, we encourage the Commission to join us in advancing necessary evolution in program offerings.

4. A successor to the net energy metering tariff should fairly consider all technologies that meet the definition of renewable electrical generation facility in Public Utilities Code Section 2827.1.

The net value billing tariff proposed herein would be open to all eligible renewable technologies sized five MW or less.

⁶⁵ See Id.

⁶⁶ See Id.

⁶⁷ See Id.

⁶⁸ See Id.

5. A successor to the net energy metering tariff should be coordinated with the Commission and California’s energy policies, including but not limited to, Senate Bill 100 (2018, DeLeon), the Integrated Resource Planning process, Title 24 Building Energy Efficiency Standards, and California Executive Order B-55-18.

The net value billing tariff would be directly supportive of Title 24 Building Energy Efficiency Standards by providing a pathway for housing developers to utilize in developing off-site community solar as an option to meet Title 24 standards. Development of facilities under the tariff will be naturally coordinated with the Integrated Resource Planning process as the IOUs will have access to facility location and output profile as part of the billing process and the projects will be compensated based on the Avoided Cost Calculator. By utilizing the hourly values provided in the Avoided Cost Calculator, the facilities will directly contribute to California’s decarbonization efforts as the facilities will have a strong incentive to export energy during the evening peak times period when natural gas power plants are ramping up as the sun goes down. Coupled with ongoing Commission efforts to incentivize demand reduction through the use of time of use rates during the same time periods, a net value billing tariff will align incentives of facilities and participants to decarbonize. This alignment will directly support the directive in Executive Order B-55-18 “to achieve carbon neutrality as soon as possible”.

6. A successor to the net energy metering tariff should be transparent and understandable to all customers and should be uniform, to the extent possible, across all utilities.

Our net value billing tariff is transparent, simplified, and uniform across all three investor-owned utilities. The disclosure proposed herein would include basic information concerning the financial arrangement and rights of each participant. The credit generated for each participant would be easily understandable because it will be shown as a simple line item “discount” on the customer’s bill.

7. A successor to the net energy metering tariff should maximize the value of customer-sited renewable generation to all customers and to the electrical system.

As stated previously, the net value billing tariff would be based upon the Commission-approved Avoided Cost Calculator's value by hour. Thus, the tariff would maximize the value of the facility to the maximum extent possible while still maintaining a transparent and simple value proposition to participants.

8. A successor to the net energy metering tariff should consider competitive neutrality amongst Load Serving Entities.

The net value billing tariff would be competitively neutral among Load Serving Entities by providing credits based upon value. For the investor-owned utilities, the Commission approved Avoided Cost Calculator provides hourly values for exported energy. For community-choice aggregators (CCAs) and energy service providers (ESPs) who choose to offer a net value billing tariff, this distribution utility tariff would be a key enabler.

9. Similarities and differences of our proposal with elements discussed in the White Paper.

In "Alternative Ratemaking Mechanisms for Distributed Energy Resources in California: Successor Tariff Options Compliant with AB 327," the authors lay out two main proposals for addressing perceived cost shifts stemming from customer investment in behind-the-meter distributed generation. First, the authors suggest that more advanced rate design is needed for customers with distributed generation to better align rates with costs and, second, that compensation for exports should change from a retail-based credit to a credit aligned with seasonal and temporal value of those exports to the investor-owned utilities. Under this framework, "net billing" would be utilized to net the value of exports from the costs of the customer's consumption of grid supplied energy. The authors note that a market transition credit may be necessary to bridge the gap between customer savings under these new rate designs, export credits and necessary payback periods to maintain a

viable distributed generation industry. Under “net billing,” customers would still be allowed to offset their entire retail rate when self-consuming energy that the customer has generated. CCSA agrees with the authors that “net billing” is a reasonable approach to utilize for our proposal. Net billing of the cost of energy consumed from the grid and the value of energy produced for the customer creates a better alignment in compensation for the value the customer’s investment provides.

We also agree with the authors that a “buy-all/sell-all” billing framework would represent a “significant and sudden change in the value proposition” for customers investing in distributed generation.⁶⁹ In addition to violating the rate principle of gradualism, a buy-all/sell-all tariff for customer-sited distributed generation would be illegal as the Commission’s jurisdiction is limited to oversight of public utilities. Simply put, regulation of private activity behind the customer meter beyond interconnection standards and development of tariffs that govern the charges/fees for services provided by the regulated monopolist is prohibited. As explained in *Story v. Richardson*, deduction for public use is a necessary predicate of public utility regulation.⁷⁰ Where energy production facilities have not been dedicated for public use, but instead are used only to generate energy for private use, public utility status does not attach.⁷¹ Therefore, the court found that the state lacked jurisdiction to tax the private economic activity at issue (generation of electricity for non-public use)⁷² as such regulation would implicate California’s Takings Clause.⁷³ In the absence of safety issues related to interconnection, which are addressed via California’s Rule 21, authorizing a utility to interfere with private activity behind the customer meter also raises privacy concerns by injecting a state sanctioned, third party into a private contractual relationship between the customer and their

⁶⁹ Id at p. 16.

⁷⁰ See *Story v. Richardson*, 186 Cal. 162, 167 (1921).

⁷¹ See Id.

⁷² See Id. at pp. 167-168.

⁷³ See Id. (“Even a constitutional declaration cannot transform a private enterprise or a part thereof into a public utility and thus take property for public use without condemnation and payment.” citing *Del Mar Water etc. Co. v. Eshleman*, 167 Cal. 666, 680, [140 P. 591, 596].)

non-utility energy supplier. Based on these fundamental constitutional concerns, CCSA urges the Commission to reject any proposal which would impose a buy-all/sell-all framework on consumers investing in private energy generation technologies for their own use and/or uses otherwise consistent with state law.

Finally, the authors propose a number of other possible rate design options to recover more revenue from customers investing in renewable energy resources, such as demand charges and higher monthly customer fixed charges. Both of these rate design ideas were extensively discussed during the Commission's redesign of residential rates in R.12-06-013. In that docket, stakeholders pointed out numerous deficiencies with utilizing demand charges and high fixed charges in residential rates. Most importantly, the utilities own studies of customer rate design preferences showed utility customers strongly favored rates without fixed charges.⁷⁴ Ultimately, the Commission declined to impose these rate options on customers.⁷⁵ CCSA continues to believe that the Commission made the right decision in declining to adopt demand charges and high fixed charges. Accordingly, CCSA opposes moving customers who invest in renewable energy technologies, an action the state seeks to support, to rates with discriminatory fees or charges that other customers who lower their usage for any number of reasons do not face. Moreover, CCSA disagrees with the author's conclusions that there are utility fixed costs that support a monthly fixed charge anywhere near \$174/month or any amount above the currently authorized fixed charges set by the Commission pursuant to Public Utilities Code 739.9(f). By moving to a value-based framework for compensation, ratepayers are receiving fair value for the forward-looking investment made in the grid; the bill credits created by that fair-value generation is separate from the consideration of what rates allow for reasonable cost-

⁷⁴ See, D.15-07-001, pp. 214-215 (discussing Hiner Study's findings that customers strongly disfavored rates with fixed charges).

⁷⁵ See Id.

recovery from each utility customer class, which is the subject of Phase 2 rate cases, not a proceeding for determining the tariff for distributed energy resources.

E. Timing and Implementation of the Net Value Billing Tariff

CCSA believes development of a tariff based off of this proposal can proceed via the Advice Letter Process for the overall framework of the tariff for nearly all aspects of the tariff because the elements of the tariff would be established in this docket for all three utilities. The one area that may require workshops would be related to billing and crediting.

There are three essential tasks related to billing and crediting:

(1) Determine the total number of credits available. The meter for the project will be read by the utility the same as is done currently.

(2) Allocate credits among Participants. The Facility Owner will communicate a “participant allocation list” to the utility. In its simplest form, this involves emailing a spreadsheet to the utility with each participant identified by their utility account number, followed by their share (as a percentage) of the project’s credits. There are more sophisticated methods for this transfer. Should the utilities decide to create more sophisticated methods, we recommend they do so in coordination with Facility Owners. Utilizing more sophisticated methods can be discussed at the workshops contemplated below during the implementation phase.

(3) Presentation credits on customer bills. This is the same presentation as credits for rooftop solar, which is an existing utility capability.

The community solar industry has experience with utilities implementing these processes across the country. Utilities have widely different capabilities: some use manual processes while others utilize automated processes, utilities have different customer information systems, and other factors. In order to arrive at an efficient billing process, CCSA believes an informal working group of Commission staff, the utilities, and Facility Owners would be the best approach for addressing any

operational issues related to billing and crediting. New York has established such a working group and participants agree that it has been instrumental to the success of the program. The working group could meet prior to the workshop to level-set understanding between the stakeholders so that proposals presented at the workshop will be informed by utility capabilities that exist now along with billing capabilities that may be available in the future with additional effort. CCSA assumes that refinements and additional improvements beyond the workshop and advice letter filing will be needed and the working group will become a standing working group. This working group process has been used in New York and elsewhere as a collaborative forum for industry and the utilities to work out practical billing challenges and improvements.

An additional feature of some programs that creates additional efficiencies is “net crediting.” “Net crediting” is when a utility can provide customers with credit that is the value of their bill credit minus the cost of their subscription. Such an arrangement can be particularly valuable for low-income customers as it is a means of avoiding the complications of having two bills: one for their utility and one for their subscription. CCSA believes net crediting is a valuable tool and believes the mechanics of this mechanism can be discussed during an implementation workshop so that all stakeholders can understand utility billing processes that would need to change and the costs of providing this service.

CCSA believes that implementation of our tariff proposal should be straightforward as our proposal builds off of existing policies but has less program restrictions which complicate other tariffs. The essential aspects of the tariff can be implemented from the Commission’s decision approving the basic program structure with a workshop held to address billing and other implementation issues. Accordingly, CCSA proposes an implementation timeline that should allow tariffs to be implemented by 2022 if this docket stays on track.

Table 4. Proposed Implementation Timeline

Day 0	Commission Decision Issued
Day 45	Workshop held to develop billing mechanisms and implementation other matters
Day 60	Tier 3 Advice Letters Implementing Tariff filed
Day 120	Advice Letters Implementing Tariff approved; Commission registration website opened

V. CONCLUSION

CCSA appreciates the opportunity to submit our Net Value Billing Tariff Proposal for consideration by the Commission and stakeholders. As we discuss above, we believe a net value billing tariff can address fundamental issues with equity and access to renewable energy resources. Moreover, by valuing the export credit based upon the value the exported energy has to the grid based on the time and location of export, the net value billing tariff can be implemented efficiently and without significant cost shifts. For these reasons, we urge the Commission to adopt our net value billing tariff as proposed.

Respectfully submitted this 15th day of March 2021.

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