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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering.	Rulemaking 14-07-002 (Filed July 10, 2014)

PROPOSAL OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC) IN DETERMINING A NET ENERGY METERING SUCCESSOR STANDARD CONTRACT OR TARIFF

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I. INTRODUCTION

NRDC is a non-profit membership organization representing more than 70,000 California members with a long-standing interest in protecting our environment and natural resources with reliable, clean and efficient energy services that a healthy economy requires. The overarching objectives in this proceeding are set forth in AB 327 statutory criteria Section 2827.1, which state that the net metering (NEM) successor tariff or contract maintain "sustainable growth" [of NEM-eligible distributed electricity resources], "total benefits of the renewable generating facility are equal to the total costs," and "total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total cost." Our proposal, which we believe appropriately balances these reinforcing elements can be summarized as follows:

- NEM represents foundational tariff policy with administrative advantages over a standard contract.
- Fixed charges should be avoided and are not in keeping with the objectives of the Loading Order.
- NEM customers should equitably contribute to public purpose programs based on gross total consumption of electricity or in similar manner as their peers in their respective customer class.
- NRDC proposes to modify the residential NEM tariff to include a seasonal demand-differentiated charge combined with a seasonal time-of-use (TOU) rate, both elements are in place today for other rate classes and residential customer opt-in programs.

II. Addressing the NEM Successor Contract / Tariff

A. Linking Public Tool Results to Statutory Criteria Set Forth in Section 2827.1

1. Metric(s) that should be used to measure 'sustainable growth' as used in Section 2827.1(b)(1)

NEM is foundational policy for California's three major IOU service territories. It has successfully fostered continued growth in clean and distributed, behind the meter technologies including rooftop solar PV, small wind and small storage technologies. In the case of distributed rooftop solar PV, NEM has allowed for continuously strong solar industry growth, particularly in the residential sector, as the California Solar Initiative achieves its goals and successfully retires.

However, residential solar market reported prices have not declined at the same rate as the drop in hardware costs in CA when compared to other states and the U.S.[1] Meanwhile CA's residential solar market has witnessed impressive annual growth rates topping 50% or more in CA three major IOU territories since 2011 while non-residential solar market growth rate has remained flat since 2011. While other states' residential solar markets have reported price declines in tandem with hardware costs coming down, CA is generally a high-cost state with relatively high retail rates that may allow for higher installer margins.

We think there are at least two specific reasons that explain why the residential solar market has two advantages in the broader solar industry market:

- Standardized customer screening via FICO credit scoring lowers customer acquisition costs.

[1] The proposed metrics here are the same as those we submitted in our originating comments responding to the Administrative Law Judge's Ruling Seeking Comment on Policy Issues Associated with Development of Net Energy Metering Successor Standard Contract or Tariff dated February 23, 2015 (February Ruling) on pp. 4-5.

- Existing monthly-tiered rate design providing greater incentive for higher usage residential customers to net their monthly utility bills to avoid paying the highest Tier 3 and 4 rates.[2]

2. Proposal for what metric(s) should be used to address the provision in Section 2827.1(b)(3) that the standard contract/tariff is "based on the costs and benefits of the renewable electrical generation facility."

We chose to forego definitively answering this question in February until we were afforded the opportunity to use the Public Tool and assess our results. Our proposal is that the current NEM tariff be modified so that the costs and benefits of the renewable electrical generation facility are aligned with the value streams, i.e. costs and benefits, of the grid serving all customers.

3. Metric(s) that should be used to address the provision in Public Utilities Code Section 2827.1(b)(4) that the "total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to total costs."

Our proposed metrics and rationale have changed since we submitted comments to the ALJ posting seeking comment dated February 23, 2015. In our comments responding this question on pp. 5-6, we indicated that the Total Resource Cost Test in the CPUC Standard Practice Manual would be the appropriate method to determine the balance of this question. Since that time we have engaged in negotiation with several parties in this proceeding, run the Public Tool and closely studied the Energy Division Staff Paper released in June 2015. We now have opened our assessment framework to one that is more multi-dimensional in order to meet

[2] The Commission adopted Decision (D.)15-07-001 in the residential rate redesign proceeding on July 3, 2015 included a $10 minimum bill, lowered the number of tiers to 2 with a new 'super user set-aside rate and flattened the tier differentials; the ongoing application of NEM at full retail value in this 2-tiered rate design construct would still mean higher tier cost avoidance on the part of NEM customers and would thus not align with avoided grid service costs.

the primary objectives set forth in AB 327. Weighing proposals against all the cost-benefit impact tests in the CPUC Standard Practice Manual is thus more appropriate in assessing existing NEM and successor tariff impacts.

B. Description and Evaluation of NRDC Proposed NEM Successor Tariff

1. The proposal should be adopted as a tariff

As we describe in our February comments on pp. 3, continuing NEM through a tariff has economic and administrative advantages over a standard contract. A tariff only requires a single meter whereas a standard contract would require a second meter for the system output of the NEM-eligible system. A second meter would add unnecessary costs to interconnect new systems regardless of whether they would be borne by the potential customer or spread among all utility customers. In addition there may be legal liabilities using the standard contract approach based on existing federal tax and energy laws.

2. Description of the NRDC proposed successor tariff

NEM represents foundational tariff policy that has fostered significant gains in clean energy deployment and should be encouraged by this Commission to endure without artificial caps on overall installed capacity based and instead be based on the merits of providing a fair allocation of utility service costs and benefits by adapting new alternatives to assess these values for the successor NEM tariff. Significantly more granular energy monitoring and measurement abilities are now readily available for customers and IOUs alike thanks to advanced metering infrastructure now in place.

In assessing new NEM tariff alternatives this Commission should continue to avoid fixed charges must that are in fact regressive toward energy efficiency and distributed clean energy

adoption. Fixed charges ultimately work against the Loading Order and California's landmark goals to reduce greenhouse gas pollution.

Adapting new alternatives to assess grid cost of service in the successor NEM tariff means using the more granular energy measurement and monitoring capabilities afforded by advanced metering technology that all residential customers now have in the three IOU service territories. NRDC proposes to modify the existing NEM tariff for the residential customer class across all three IOU service territories by redesigning the residential NEM tariff to re-channel the value stream of residential NEM benefits and costs to align with the grid cost of service. The two major elements of the NRDC proposal for the residential NEM tariff are to phase in a demand-differentiated charge alongside a modified assessed value on NEM grid exports based on a seasonal time-of-use (TOU) rate. Application of this new residential NEM tariff will ensure that two of the three AB 327 elements that the new standard contract/tariff *is based on the costs and benefits of the renewable electrical generation facility* and that the *total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total cost* will be sufficiently met.

The primary merits of a demand charge are that it sends an actionable and predictable price signal to NEM customers to manage on-site electricity that align with transmission and distribution (T&D) cost of service. The advantages of a T&D-cost based demand charge are in contrast to fixed charges and technology-specific fees like solar PV system size capacity charges, which do not present an actionable price signal to incentivize consumers to reduce system-level costs. NRDC proposes a demand charge that would be assessed using similar methods for small and medium commercial customer classes by taking the average of the two highest 15-minute capacity periods over the course of each monthly billing period. For ease of utility billing

administration as well as afford predictable pricing expectations for the NEM customer, we propose that the residential NEM successor tariff effectively differentiate a customer demand charge into three major tranches or tiers as follows: 0-3 kW, 3-6 kW and 6+ kW; whereby within each tranche a flat demand charge "fee" would be assessed.

In addition to assessing a monthly demand charge based on T&D cost of service for the residential NEM successor tariff, there should be a seasonal time of use (TOU) rate assessed to more accurately value the costs of grid imports and the benefits of grid exports. The seasonal TOU rate should be based on existing TOU rate designs that residential customers in the three IOU territories can opt into.

Lastly, evaluating our proposal against the third element of AB 327 *that customer-sited renewable generation "continues to grow sustainably*, results from our own modeling of our proposal using the Public Tool show a minimum of 11,700 MW under a "low renewable DG value case" upwards of 13,200 MW based on the "high renewable DG value case" from 2017 to 2025. Taking an average of the two results in approximately 1.5 GW of new capacity from NEM-eligible distributed resources per year for the 8-years modeled (2017 -2025); or nearly three times the average annual rate of growth for the prior 3-years (2012-2014) of NEM-eligible resources for the three IOU's service territories.

C. Additional Elements

1. Variations on NEM

No comment.

2. Exemptions from interconnection application fees, interconnection study fees, and distribution upgrade fees.

No comment.

3. Exemptions from standby charges

No comment.

4. Payment of nonbypassable charges

A top priority for NRDC in this proceeding is to ensure that NEM customers equitably contribute to public purpose programs and not be allowed to "net zero" this important obligation to equitably contribute to public benefit programs. In modified NEM tariff terms this means making non-bypassable charges "non-avoidable." We think that a simple fix can be made by basing NEM customer contributions to public purpose programs on monthly gross total consumption of electricity.

5. Safety and consumer protection issues

No comment.

6. Legal Issues

As stated earlier on the possibility of using a standard contract running into limitations from existing federal energy and tax liabilities, NRDC has no additional points to raise here.

III. CONCLUSION

The overarching goals guiding this proceeding set forth in AB 327 statutory criteria Section 2827.1 state that the net metering (NEM) successor tariff or contract maintain "sustainable growth" [of NEM-eligible distributed electricity resources], "total benefits of the renewable generating facility are equal to the total costs," and "total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total cost" achieve appropriate balance in our proposal. To recap:

- NEM represents foundational tariff policy with administrative advantages over a standard contract.
- Fixed charges should be avoided and are not in keeping with the objectives of the Loading Order.
- NEM customers should equitably contribute to public purpose programs based on gross total consumption of electricity or in similar manner as their peers in their respective customer class.
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Dated: August 3, 2015
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