

**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 R.14-07-002
(Filed July 10, 2014)

**COMMENTS OF RECOLTE ENERGY ON NET ENERGY
METERING SUCCESSOR TARIFF OR CONTRACT PROPOSALS
PURSUANT TO JUNE 4, 2015 RULING OF ALJ SIMON**

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SUCCESSOR TARIFF OR CONTRACT PROPOSALS PURSUANT TO JUNE 4,
2015 RULING OF ALJ SIMON**

Récolte Energy (Récolte)¹ hereby submits these comments on virtual net metering (VNM) and NEM Aggregation (NEMA) in response to the NEM successor tariff proposal submitted by PG&E.

Récolte recommends retaining VNM and NEMA under the NEM successor tariff and suggests improvements to these programs to simplify and expand their adoption and reduce billing complexity, while satisfying AB327's requirements that distributed renewable energy generation continue to grow sustainably and without cost shifting.

Currently, VNM and NEMA are available to all customer classes under NEM, but only when certain conditions are met. Under these specific circumstances, VNM and NEMA don't just result in no cost shifting or wheeling, but, because of the benefits of economies of scale, result in net gains to *all* customers, including non-NEM ratepayers. As long as these restrictions on VNM and NEMA are preserved under a NEM successor

¹ Récolte Energy has a Motion for Party Status in this proceeding that is pending before the Commission. Récolte submitted its Motion on August 20, 2015.

tariff, the results won't change (no cost shifting or wheeling; net benefits to both NEM customers and other ratepayers).

We also recommend that a Bill Credit Compensation mechanism be required under the successor tariff, to address PG&E's concerns, to remove billing complexity, and to simplify customer understanding.

I. BACKGROUND ON RECOLTE ENERGY

Récolte Energy is a Napa Valley based energy consultancy that develops behind-the-meter, distributed generation (**DG**) projects for *wineries* such as Chappellet, Chateau Montelena, Far Niente, and Sutter Home; *non-profits* including the Gasser Foundation, Del Mesa Carmel, and United Cerebral Palsy; *school districts* in Napa, Sonoma, and Contra Costa counties, and *local governments* in Napa and El Dorado counties.

II. BASIS FOR CONTINUING AND EXPANDING VNM AND NEMA

In PG&E's proposal for a NEM Successor Tariff (Section II.1.10, pp.29-31) titled "Virtual Net Metering, V-NEM MASH, and NEM Aggregation", PG&E argues for the end of VNM and NEMA, except for low income and agricultural customers. PG&E claims that these programs result in cost shifting and wheeling of power.

A. VNM

In its comments on Phase 1 issues regarding CSI modifications, Récolte Energy recommended allowing a customer to offset all of his meters within the IOU's territory, using any eligible renewable energy technology, receive full retail credit for

his exports, and pay the utility for using its distribution infrastructure².

The Commission rejected Récolte Energy's sweeping recommendations, because of concerns over cost shifting, but, in Decision D.11-07-031, authorized expansion of VNM to multi-tenant and multi-meter properties, as long as the meters were located behind a service delivery point (SDP), because with this restriction, there was no cost shifting.

In Resolution E-4481 (March 22, 2012), the Commission wrote: "The Commission adopted this SDP limitation for VNM eligibility in D.11-07-031 for two reasons: first, in response to the need for a physical boundary for the purposes of determining VNM eligibility and billing; and second, to protect ratepayers from cost shifts associated with wheeling power over the utility-owned distribution system."³

Not only did the Commission rule that VNM for meters on the customer's side of a SDP does not result in cost shifting or wheeling, but recognizing that customers have to pay upfront for service to be delivered to them and PG&E's proposal to disallow VNM would preclude customers from using the infrastructure that they had paid for, the Commission further clarified that customer-owned line extensions that deliver power to other meters on the same property are not separate SDPs.

In its NEM successor tariff proposal, PG&E makes reference to the CPUC rejecting a distribution-only tariff. This citation would have been pertinent to the cost shifting /

² Opening Comments of Recolte Energy on Phase I Issues Regarding CSI Modifications (December 6, 2010) in R.10-05-004. Online at: <http://docs.cpuc.ca.gov/PublishedDocs/EFILE/CM/127695.PDF>

³ Resolution E-4881 (March 22, 2012), p. 15

wheeling argument had VNM been implemented as Récolte Energy had proposed in its Phase 1 issues regarding CSI modifications. Given that the Commission already limited VNM to behind SDP, PG&E's argument doesn't apply.

Please see below PG&E's diagram of the only circumstance under which a customer can participate in VNM.



Figure 1: PG&E's diagram of the only circumstance under which a customer can participate in VNM.

This illustration shows that PG&E's argument – offsetting the six meters (in this instance) with one DG system rather than with six separate DG systems will result in cost shifting and wheeling – is baseless. Not only is there no cost shifting or wheeling, but there will be net savings to the ratepayer because of economies of scale. PG&E has only one interconnection agreement, rather than six, to approve and manage, and only

one meter to install rather than six NEM meters to replace or reprogram.

The next two photographs show how a non-profit customer with 11 meters (10 of which served his clients) in one electrical closet had to replace these with one meter so he could participate in onsite DG, because VNM hadn't yet been approved for the general market. He had to remove shut off power to his building over a weekend, rip out the equipment that served 11 tenants, install new equipment that belonged to him, modify the tenants' leases so that these included utilities in their rents, and, because the tenants lost their "price signals" from the utility, install additional equipment to monitor the electricity consumed by the tenants. The pictures represent before and after pictures of the customer's electrical closet. This equipment change cost the customer over \$70,000.



Figure 2: Customer's electrical closet: Before installation of solar



Figure 3: Customer's electrical closet: After installation of solar

B. NEMA

As with VNM, PG&E argues that NEMA also results in cost shifting and is additionally problematic because of billing, interconnection, and interpretation of vague NEMA program rules. Despite these issues, PG&E is willing to make an exception for CARE and agricultural customers.

First, if NEMA resulted in cost shifting, PG&E could not offer it at all per SB 594, the legislation that authorized meter aggregation. SB 594 required the Commission to determine if NEMA would result in cost shifting, and only if it didn't could NEMA be made available.

In its comments to Resolution E-4610 (September 19, 2013), PG&E tried to make the case that NEMA results in cost shifting. The Commission found that there was none on the basis specified in SB 594. SB 594 did not mandate that the CPUC determine whether cost shifting exists when comparing aggregated DG systems against the cost of NEM, but rather, whether cost shifting exists when comparing a NEMA system against the total of multiple disaggregated NEM systems.

PG&E's argument then was based on an incorrect comparison. PG&E is presenting the same argument again in its NEM successor tariff proposal. This time PG&E offers as support for its argument that NEMA results in cost shifting, that other bodies, such as [Merced Irrigation District](#) (MID) find that NEMA results in cost shifting. But MID's analyst has made the same mistake. PG&E then and MID now should have been evaluating whether cost shifting took place if a customer built multiple disaggregated NEM systems rather than a single aggregated NEM (or NEMA) system, as required by SB 594. In MID's analysis, NEMA is compared against NEM:

“This is explained using a simple example of a customer with two services. The customer has solar connected at service "A"; the second service, service "B" is a standard service with no generation on site...”

For the analysis to have been correct, the customer should have had solar connected at service “A” *and service “B”*, and then compared against NEMA.

If a customer with multiple meters on the same or contiguous parcels is permitted to build multiple DG systems, and the same customer instead chooses to build one system

to offset the combined loads, then, *as with NEM, as long as the NEM successor tariff is the same for disaggregated and aggregated systems*, there is no cost shifting but only savings because of economies of scale. As with VNM, there is now only one interconnection agreement and only one meter to install, replace or reprogram, instead of many interconnection agreements and meter changes.

In the proceeding on VNM, the Commission established SDP as the boundary for VNM so there would be no cost shifts related to wheeling and then clarified that customer-owned line extensions that deliver power to other meters on the same property are not considered separate SDPs. Likewise, for NEMA, the legislation established, and the Commission confirmed that there would be no cost shifts related to wheeling when a single customer offsets the meters on her own contiguous parcels. This boundary for NEMA was established, as it was with VNM, in recognition of the fact that the customer pays for all or part of the infrastructure on her property that she then would be precluded from using if PG&E's viewpoint prevails. There would be cost shifting, but in exactly the opposite direction from what PG&E is proposing. The individual customer would be subsidizing the general ratepayer.

PG&E's proposal to selectively allow aggregation for CARE and agricultural customers is discriminatory and violates its regulatory compact. All ratepayers are entitled to participate in DG. Récolte Energy's clients include wineries, school districts, various non profits, including retirement communities with residents living on fixed incomes (but who are ineligible for CARE). They all have high PG&E bills and want to manage these bills by building cost effective DG systems.

VNM and NEMA will allow the solar industry to continue to grow sustainably, but not unmanageably. Just because a customer can use these programs doesn't mean that they will. There are many other obstacles to adoption.

For instance, since solar projects are typically developed to offset high electricity bills, CARE customers who already receive subsidized electricity – paying, for example an average of 8 cents/kWh, when other customers may be paying, for example, 13, 17, or 20 cents/kWh, depending on whether they are industrial, commercial, or residential customers – have little economic incentive to go solar.

PG&E writes that generation sized to aggregated accounts at remote locations can result in exports on a distribution system that is not equipped to accept this level of exports.

Customers intending to use NEMA and VNM typically get their projects preapproved by PG&E before beginning development. The sites are assessed, that the system has been sized to load has to be verified, and the projects go through land (for NEMA only) reviews and interconnection studies.

If the interconnection studies find that the grid cannot handle the export, and the distribution grid needs to be updated, the customer has contribute partly (or fully, if she is the sole beneficiary of the upgrade) towards the installation of the equipment. These upgrade costs also deter a customer from going solar.

C. BILLING PROBLEMS AND RECOMMENDATIONS

Récolte Energy agrees with PG&E that VNM and NEMA billing are very complex to

manage and incomprehensible to customers. Basic NEM billing is hard to understand. The billing becomes more complex and the customers' lack of understanding gets worse with Net Surplus Compensation (NSC). And as if this weren't enough, for Marin Clean Energy or Sonoma Clean Power customers, PG&E has to bill, and the customers have to understand, net surplus electricity compensation by PG&E for the non-generation component of their bills, versus bill credit compensation for the generation component of their bills.

The billing methodology currently used by PG&E was proposed by Récolte Energy in response to the problem of customer generated kWh being forfeited to PG&E. This problem arose because of the combination of

1. The requirement in SB 594 that kWh be allocated on a monthly basis and
2. NEMA customers being ineligible for net surplus electricity compensation.

The billing complexity can be simply and easily eliminated by requiring bill credit compensation for all NEM, VNMA, and NEMA projects.

Bill Credit Compensation does not result in cost shifting. The Energy Division agreed with this analysis and supported bill credit compensation legislation in 2002⁴.

Only in combination with Bill Credit Compensation will PG&E's proposal to do a monthly true up with customer-provided production allocations, rather than based on monthly usage, work. Without it, billing will be as complex as ever, customers more

⁴ See SB 7 (Wiggins) Assembly Utility and Commerce Analysis (07/02/2009)

confused than ever, and the problem of customer generated kWh being forfeited to PG&E will manifest again.

Most importantly, with Bill Credit Compensation, PG&E can extricate itself from its customers' internal accounting world. If a customer owes PG&E money for using electricity on one meter, he writes PG&E a check. If PG&E owes the customer money because he is generating electricity on another meter in a behind-the-meter DG transaction, PG&E writes him a check. If the bill from PG&E for a usage meter is based on the load at that meter and an applicable residential, commercial, industrial, or agricultural NEM successor tariff, then the *credit* from PG&E should be based on the *load offset* at that meter and the corresponding residential, commercial, industrial, or agricultural NEM successor tariff. If the meters being aggregated in the arrangement include residential, commercial, industrial, and/or agricultural, then the chosen tariff for the generator account could simply be the same as the one that has the greatest aggregated load. This decision would be similar to how PG&E assigns a meter that has mixed use either a commercial or residential rate.

III. CONCLUSION

Récolte recommends that regardless of what NEM successor tariff the Commission approves, VNM and NEMA continue to be available, so that the DG industry can continue to grow sustainably without cost shifting, and also that Bill Credit Compensation be required, in order to remove billing complexity and simplify customer understanding.

Respectfully submitted this 1st day of September, 2015 at San Francisco, California.

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