
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

**Senator Steven Bradford, Chair
2023 - 2024 Regular**

Bill No:	SB 1374	Hearing Date:	4/22/2024
Author:	Becker		
Version:	3/18/2024 Amended		
Urgency:	No	Fiscal:	Yes
Consultant:	Nidia Bautista		

SUBJECT: Net energy metering

DIGEST: This bill would require the California Public Utilities Commission (CPUC), by July 1, 2025, to ensure that any contract or tariff, as part of the Net Energy Metering (NEM) program for renewable electrical generation facilities configured to serve either multiple customers with meters on a single property or multiple meters of a single customer on a property or a set of contiguous properties provide for property-netting, thereby overturning a recent CPUC decision concerning the treatment of self-consumption for these electric utility meter arrangements.

ANALYSIS:

Existing law:

- 1) Establishes and vests the CPUC with regulatory authority over public utilities, including electrical corporations. (Article XII of the California Constitution)
- 2) Requires every electric utility, including electrical corporations, to develop a standard contract or tariff providing for NEM and requires this standard contract or tariff is made available to eligible customer-generators, upon request, on a first come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds five percent of the electric utility's aggregate customer peak demand. Specifies the minimum calculated program limit of generating capacity for the three large electrical corporations. This program is commonly referred to as NEM 1.0. (Public Utilities Code §2721(c))
- 3) Requires the NEM calculation for eligible customer-generators to be made by measuring the difference between the electricity supplied to the eligible customer-generator and the electricity generated by the eligible customer-generator and fed back to the electrical grid over a 12-month period. (Public Utilities Code §2721(h))

- 4) Provides that an eligible customer-generator with multiple meters may elect to aggregate the electrical load of the meters located on the property where the renewable electrical generation facility is located and on all property adjacent or contiguous to the property on which the renewable electrical generation facility is located, if those properties are solely owned, leased, or rented by the eligible customer-generator. Makes customer-generators electing to aggregate the electric load permanently ineligible to receive net surplus compensation. (Public Utilities Code §2721(h)(4)(A)(B))
- 5) Requires the CPUC, by September 30, 2013, to determine whether allowing eligible customer-generators to aggregate their load from multiple meters will not result in any increase in the expected revenue obligations of customers who are not eligible customer-generators. (Public Utilities Code §2721(h)(4)(D))
- 6) Provides that parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are otherwise contiguous and under the same ownership. ((Public Utilities Code §2721(h)(4)(F))
- 7) Authorizes an eligible customer-generator to elect to aggregate the electrical load of multiple meters if the renewable generation facility, or a combination of those facilities, has a total generating capacity of not more than one megawatt (MW). (Public Utilities Code §2721(h)(4)(G))
- 8) Requires, if the CPUC determines there are cost or revenue obligations for an electrical corporation that may not be recovered from customer-generators participating in NEM, those obligations must remain within the customer class from which any shortfall occurred and prohibits those obligations to be shifted to any other customer class. (Public Utilities Code §2721(k))
- 9) Requires the CPUC to develop a standard contract or tariff, which may include NEM, for eligible customer-generators with a renewable electrical generation facility that is a customer of a large electrical corporation no later than December 31, 2015. Authorizes the CPUC to require a large electrical corporation that has reached the net energy metering program limit (of NEM 1.0) to offer the standard contract or tariff to eligible customer-generators (known as NEM 2.0). Requires the CPUC, in developing the standard contract or tariff for large electrical corporations to take specified actions. Provides that there is no limitation on the amount of generating capacity or number of new eligible customer-generators. (Public Utilities Code §2827.1)
- 10) Establishes the local government renewable energy self-generation bill credit transfer (RES-BCT) program which authorizes a local government

(including school districts) and tribes to elect to have a bill credit applied to a designated benefiting account for electricity exported to the electrical grid by an eligible renewable generating facility and requires the CPUC to adopt a rate tariff for the benefiting account. Defines an eligible "benefiting account" under the RES-BCT program to mean an electricity account, or more than one account, located within the geographical boundaries of a local government or, for a campus, within the geographical boundary of the city, county, or city and county in which the campus is located, that is mutually agreed upon by the local government or campus and an electrical corporation. (Public Utilities Code §2830)

This bill:

- 1) Requires, no later than July 1, 2025, the CPUC to ensure that any contract or tariff established by the CPUC, as part of the NEM program, for renewable electrical generation facilities configured to serve either multiple customers with meters on a single property, or multiple meters of a single customer on a property or a set of contiguous properties owned, leased, or rented by the customer, meets the following requirements:
 - a) The eligible customer-generators may elect to aggregate the electrical load of the meters located on the property or set of contiguous properties to determine onsite consumption from the renewable electrical generation facility.
 - b) Requires the eligible customer-generators to determine the percentage of the total generation to be allocated to each account on the property or set of contiguous properties.
 - c) Each account's portion of the generation shall be subtracted from that account's consumption in each 15-minute period for billing purposes.
 - d) Requires customers to be compensated at no less than utility avoided cost for generation in excess of consumption.
- 2) Provides that parcels that are divided by a street, highway, waterway, or public thoroughfare are considered contiguous, provided that they are otherwise contiguous.

Background

Net energy metering. NEM allows an electric utility customer who self-generates electricity using specified renewable energy technologies (most commonly solar energy on the rooftop) to receive a credit on their utility bill for generation that is not consumed onsite and exported to the electric grid. The credits may be used to offset the customer's utility bill and reduce the amount of electricity consumed from the electric grid. As such, the reduced volumetric usage also reduces the collection of public purpose programs, distribution, and transmission charges, that are otherwise collected via a volumetric charge from customers.

Pursuant to SB 656 (Alquist, Chapter 369, Statutes of 1995), in 1996, the CPUC created the first NEM tariff, commonly known as "NEM 1.0." The CPUC created the second NEM tariff, "NEM 2.0," in 2016 pursuant to AB 327 (Perea, Chapter 611, Statutes of 2013). In December 2022, CPUC decision (D. 22-12-056) adopted a new successor tariff, a net-billing tariff (NBT), to better align the costs and benefits of customer-generated onsite renewable electricity and align price signals with the electric grid's conditions. The December 2022 decision primarily focused on single-meter properties/customers.

Subsequently, the CPUC identified five outstanding issues that need to be considered in the proceeding (R.20-08-020), including: 1) Virtual Net Energy Metering (VNEM) tariff, and 2) the Net Energy Metering Aggregation (NEMA) subtariff, and four other issues.

About VNEM. In a VNEM tariff system, the generation facility is installed on the building roof or nearby, often on a carport. A simple system design includes (1) one central generation facility, (2) multiple tenants, and (3) one service delivery point. The generation facility generates electricity and sends it to the electrical grid, while tenant and common area units consume energy from the grid. The utility then allocates compensation for the tenant and common area units' virtual self-generation via monthly utility bill credits. VNEM was originally adopted as a tariff to facilitate benefits to tenants from a solar energy system installed by a building owner on an affordable housing complex without master metering hardware or site-specific electric utility infrastructure upgrades, as part of the Multifamily Affordable Solar Housing (MASH) Program. In 2008, the CPUC directed the electric utilities to file tariffs for a VNEM program to "allow electricity produced by a single solar installation to be credited to the benefit of multiple tenants in the building without requiring the system to be physically connected to each tenant's meter." In that same decision, the CPUC authorized the expansion of VNEM to apply to any multitenant property that installs a generation facility, not just affordable housing. In D.11-070-031, the CPUC established several policies for

VNEM, including limiting sharing the bill credits to only those multi-tenant or multi-meter properties accounts served by a single service delivery point that receive a full retail rate credit, except MASH participants.

Based on data collected by the CPUC in the proceeding (R. 20-08-020), there is a low VNEM participation rate, with most projects and capacity participating in MASH or the Solar on Multifamily Affordable Housing (SOMAH). Only one utility, Pacific Gas & Electric (PG&E), reports any existence of the use of storage combined with solar in the VNEM tariff (one customer, with a capacity of 13 kilowatts of battery storage.)

VNEM Tariff Participation Statistics Statewide			
<i>(Source: CPUC D.23-11-068, p. 12)</i>			
		No. Facilities	Megawatt Capacity
VNEM	Residential	217	4.86
VNEM	Mixed	513	19.99
VNEM	Nonresidential	225	35.09
MASH	MASH	1,626	61.69
SOMAH	SOMAH	253	16.72
	Total – ALL	2,834	138.35
	Total – VNEM General Market	955	59.94
	Total – VNEM for Low-Income	1,879	78.41

About NEMA. Pursuant to SB 594 (Wolk, Chapter 610, Statutes of 2012), the CPUC established the NEMA subtariff of the NEM tariff to allow an eligible customer-generator with multiple meters to aggregate the electrical load of the meters located on the property where the generation facility is located or on property contiguous to that with the generation facility. The legislation provided that a customer could install one generation facility sized to serve the entire load of these meters (up to one megawatt) as opposed to separate facilities at each meter. This is predicated on the CPUC making a determination that aggregating the load from multiple meters would not result in an increase in the costs for customers not participating in the NEMA tariff. Customers who elect to participate in NEMA are prohibited from receiving net surplus electricity compensation.

Currently, utilities have about 13,000 properties interconnected to the grid under a NEMA subtariff with a cumulative solar capacity of about 1,000 MW. Based on data provided in the proceeding, PG&Es customer participation is split between residential (2,307 properties), non-residential (2,357 properties), and mixed residential and nonresidential (2,387 properties). The cumulative capacity of three property types range from 25.95 MW, to 557.9 MW. Utilities reported that

combined solar and storage installations participating in NEMA is about only 181 properties of the 13,000 NEMA participating properties.

Comments

CPUC November 2023 Decision. After nearly a year since the December 2022 NBT decision, with stakeholder workshops, comments, and reply comments, the CPUC adopted a decision in November 2023 concerning VNEM and NEMA, including the treatment of self-consumption. The CPUC concluded it is reasonable to replace the VNEM tariff with a virtual NBT that aligns with the NBT adopted in D.22-12-056, but with different netting requirements for residential benefitting account holders. The issue of property-netting was raised by multiple stakeholders. However, the CPUC declined to adopt property-netting for non-residential customers citing greater cost shifts for nonresidential VNEM tariff customers in the NEM 2.0 tariff. Specifically, for PG&E customers the CPUC found the cost shift to be over \$15,300 per customer for nonresidential customers, compared to \$1,857 per customer for residential customers across all three utilities. As the CPUC noted: “The VNEM tariff for nonresidential customers concentrates benefits to comparatively few customers, on average.”

Self-consumption. In the November decision, the CPUC distinguished between single-metered properties and multi-meter properties. The CPUC declined to allow self-consumption to be used as property-netting, citing the difference in the NBT which all occurs behind the meter. These customers self-consume before sending any residual energy to the grid. In the NBT, customers are compensated for their net generation, not all generation. However, in the case of VNEM, benefitting accounts would be compensated for their allocation of all generation.

The CPUC adopted a policy decision to address equity for residential VNEM customers who are more likely to be renters, and therefore not benefit from the same NBT as adopted for single-metered homes. The CPUC adopted a 15-minute unit-level netting of consumption and generation for residential virtual NBT customers, which is meant to approximate the availability of self-consumption provided to net billing customers. As such the decision adopted different requirements for residential v. nonresidential customers.

With regards to NEMA, the CPUC decision states it is the CPUC’s choice to maintain or change NEMA subtariff. The CPUC adopted a NBT-A to optimize land resources, including locating solar facilities on agriculturally underperforming land. The CPUC elected not to allow for netting. While the decision does not go into great detail regarding netting for NEMA, it does express concerns about interconnection costs in relation to NEMA and found that savings from net surplus

compensation do not compensate for higher utility costs caused by NEMA subtariff customers.

Net energy metering. As per the CPUC decision:

Since implementing net energy metering over 20 years ago, California has witnessed the evolution of the customer-sited rooftop solar industry, resulting in the installation of over 12 gigawatts of clean distributed energy resources. Today, California's electric grid is significantly powered by clean energy during daytime hours, but peak electricity demands in the late afternoon and continuing into the night lead to a greater reliance on greenhouse gas emitting resources.

This [November 2023] decision revises the net energy metering tariff to improve price signals by better aligning them with the electric grid's conditions, both day and night. The updated billing structure of the tariff is designed to optimize grid use by the tariff's customers and incentivize adoption of combined solar and storage systems. These changes will help meet California's climate goals and increase reliability, while promoting affordability across all income levels.

SB 1374. This bill seeks to provide non-residential customers the same treatment provided to residential customers. As noted above, these issues were discussed in the CPUC proceeding, as netting for self-consumption was raised by multiple parties. Nonetheless the supporters of this bill contend the CPUC decision should be changed by the Legislature. While the Legislature has the ability to make this change, the need to balance costs for all electric ratepayers has been front-and-center for members. The supporters of this bill argue that the CPUC's decision to not allow netting of self-consumption will make it economically infeasible to install solar projects at schools, farms, and multifamily properties. In the case of multifamily properties, supporters contend that the landowner will have a vastly diminished incentive to install solar or other onsite renewable generation, which as a result will mean renters will not receive the benefit (even as their accounts are netted for self-consumption). This particular concern does not seem have been discussed in the decision. However, the need to address existing costs and cost shifts to better align all NEM-related programs was raised, repeatedly, in the decision. Many of the supporters of this bill contend that the treatment of self-consumption will determine the ability of future customers to participate in the program. They believe the CPUC decision goes too far in changing the treatment of self-consumption (and perhaps in the compensation). However, as noted above, these issues were raised by several parties in the proceeding.

Application for Rehearing (AFR) and Petition for Modification (PFM). Several parties filed AFR and at least one party filed a petition for modification (PFM). As of the writing of this analysis, these applications and petitions have not been resolved. In the case of the PFM, Ivy Energy has raised the issue of property-netting for self-consumption among the other issues raised in the PFM. In the case of the AFRs, some of those parties include supporters of this bill. AFRs are sometimes the first step in an eventual lawsuit, though it's too early to know if that is the case with these AFRs.

Expansion of contiguous property. This bill would expand which properties are considered contiguous for the purposes of the NEMA or successor tariff to those that are divided by waterways, which could include large lakes or rivers, in addition to the street, highway, or public thoroughfare. Supporters of the bill suggest that a water canal (including a dry one) may sometimes divide a school property.

Determination of allocation to each account. The bill would require the eligible customer-generator to determine the percentage of the total generation to be allocated to each account on the property or set of contiguous properties, instead of allocating by proportion of load. Customers who are participants in this arrangement may have concerns about the allocations determined by the customer-generator.

Prior/Related Legislation

AB 327 (Perea, Chapter 611, Statutes of 2013) among its provisions, created a new NEM program – NEM 2.0 that is applicable to the state's three largest electrical corporations.

SB 594 (Wolk, Chapter 610, Statutes of 2012) among its provisions, authorized NEMA to allow an eligible customer-generator to aggregate the electrical load from multiple meters, and NEM credits are shared among all property that is attached, adjacent, or contiguous to the generation facility. Required that a customer-generator must be the sole owner, lessee, or renter of the properties in order to utilize NEMA.

AB 2723 (Pavley, Chapter 864, Statutes of 2006) among its provisions, provided that not less than 10 percent of funds collected by the electric utilities for the CPUC's California Solar Initiative program must be utilities for the installation of solar energy systems in low-income residential housing.

SB 656 (Alquist, Chapter 369, Statutes of 1995) required every electric utility, including electrical corporations, that offer residential service to develop a standard tariff providing for NEM to eligible customer-generators. Applies only to those systems that produce up to 10 kilowatts and would be restricted to 0.1 percent of a utility's peak demand.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: Yes

SUPPORT:

School Energy Coalition, Co-sponsor

UndauntedK12, Co-sponsor

350s: Conejo, Humboldt, Sacramento Legislation Team, SoCal, South Bay LA,
Southland Legislative Alliance, Ventura County Climate Hub

Acterra, Action for A Healthy Planet

Advanced Energy United

Agricultural Council of California

Agricultural Energy Consumers Association

Alameda County Democratic Party

Aztec Solar

Ballona Institute

Ban SUP

California Cotton Ginners & Growers Association

California Alliance for Community Energy

California Association of Local Housing Finance Agencies

California Building Industry Association

California Climate Voters

California Democratic Renters Council

California Farm Bureau

California League of Food Producers

California Solar & Storage Association

Californians for Energy Choice

Change Begins With ME

Citadel Roofing & Solar

City of Laguna Beach

Clean Coalition

CleanEarth4Kids.org

Climate Action California

Climate Action Campaign

Climate Breakthrough

Coalition for Adequate School Housing

Coastal Lands Action Network

Community College Facility Coalition

Contra Costa MoveOn
Courageous Resistance
Culver City Democratic Club
Custom Power Solar
Defend Ballona Wetlands
Elders Climate Action, NorCal
Elders Climate Action, SoCal
ENGIE North America
Environment California
Extinction Rebellion San Francisco Bay Area
Feminists in Action Los Angeles
GENup
Glendale Environmental Coalition
Habitable Designs
Hammond Climate Solutions
Hang Out Do Good
HomeFed
Indivisible: 36, 41, CA 25 Simi Valley-Porter Ranch, CA 43, CA 45, Alta-Pasadena, Auburn CA, Beach Cities, California Green Team, Claremont/Inland Valley, Cloverdale, Colusa County, East Bay, East Valley, El Dorado Hills, Elmwood, Euclid, Hillcrest, Indian Valley, Livermore, Los Angeles, Manteca, Marin, Media City Burbank, Mendocino, Normal Heights, OC 46, OC 48, Orchard City, Petaluma, ReSisters Walnut Creek, Ross Valley, Sacramento, San Diego Central, San Jose, San Pedro, Santa Barbara, Santa Cruz County, Sausalito, Sebastopol, SF, SF Peninsula and CA-14, SFV, Sonoma County, South Bay LA, Stanislaus, The Resistance Northridge, Ventura, Westside LA, Yalla, and Yolo
JKB Energy
JKB Living
Local Clean Energy Alliance
Long Beach Alliance for Clean Energy
Long Beach Environmental Alliance
Mill Valley Community Action Network
New Buildings Institute
Nexamp
Our Revolution Long Beach
PearlX Infrastructure, LLC
Progressive Democrats of America, California
Progressive Democrats of Santa Monica Mountains
Prologis Management, LLC
Récolte Energy
Rewiring America

Rooted in Resistance
San Joaquin Valley Democratic Club
San José Community Energy Advocates
San Lorenzo Valley Women's Club Environmental Committee
San Luis Obispo Mothers for Peace
San Mateo Climate Action Team
Santa Clara County Office of Education
Santa Cruz Climate Action Network
Scudder Solar Electrical Energy System
Silicon Valley Youth Climate Action
Solar Energy Industries Association
Solar Technologies
SolarCraft Services
SolarGain West
Solvista Farming
Sonoma County Democratic Party
Strategic Energy Innovations
Sunnova Energy International
SunPower by Quality Home Services
Sustainable Silicon Valley
Sustainable Systems Research Foundation
Ten Strands
The Climate Alliance of Santa Cruz County
The Climate Reality Projects: California, Los Angeles, San Fernando Valley, and Silicon Valley
The Harker School
Together We Will - Los Gatos
Together We Will - Contra Costa
Unified School Districts: Grossmont High, Long Beach, Los Angeles, Oakland, San Diego, San Jacinto, and Ukiah
U.S. Green Building Council-California
Valta Energy
Vector Green Power and Materials
Venice Resistance
Western Agricultural Processors Association
White Metal Golf
Wicks Roofing & Solar
Wine Institute
Women's Alliance Los Angeles
Women's Energy Matters
4 Individuals

OPPOSITION:

California State Association of Electrical Workers
Coalition of California Utility Employees
Pacific Gas and Electric Company
San Diego Gas and Electric Company
Southern California Edison
The Utility Reform Network

ARGUMENTS IN SUPPORT: School districts in support of this bill contend that the November 2023 CPUC decision prevents utilities' customers from self-consuming their own on-site solar energy generation if it is metered separately from other usage, thereby making it economically infeasible for school districts to utilize rooftop solar. San Diego Unified School District states: "Increases in energy expenditures take money directly out of the classroom... By restoring net energy metering for non-residential customers, SB 1374 would ensure that clean energy remains a viable option for utility customers like public school districts."

Agriculture related organizations, including the California Farm Bureau, express support for this bill and believe the CPUC decision lacked a basis of fact or evidence, and effectively eliminated the NEMA program. They support this bill's efforts to allow some form of netting of generation and usage for multi-meter customers.

ARGUMENTS IN OPPOSITION: In opposition to this bill, The Utility Reform Network (TURN) opposes this bill because "it is guaranteed to accelerate the pace of electric rate increases for residential customers in future years." TURN contends that if SB 1374 is enacted, "projects under VNEM and NEMA will likely be optimized to have a high proportion of their generation treated as 'self-consumption' by non-residential accounts." Instead, TURN recommends the Legislature provide compensation to these customers via the state's general fund, as it would be far more progressive.

The three large electrical corporations state that SB 1374 would require the utilities to provide bill credits for exported energy far in excess of their value to the system and fails to account for the increased cost to serve customers with multiple meters; the resulting burden would fall on other customers.

-- END --