

Date of Hearing: April 30, 2025

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY

Cottie Petrie-Norris, Chair

AB 942 (Calderon) – As Amended March 25, 2025

SUBJECT: Net energy metering: eligible customer-generators: tariffs

SUMMARY: Makes three changes to Net Energy Metering (NEM) customer-generator arrangements: 1) sunsets legacy NEM contracts after 10 years; 2) requires new property owners inheriting solar systems to take service under the current, not the inherited, NEM tariff; and 3) ends Climate Credit allocations to NEM customers starting on January 1, 2026. Specifically, **this bill:**

- 1) Requires, on or after July 1, 2026, any eligible customer-generator that has taken service for 10 or more years under a NEM tariff to move to whichever tariff is current after December 1, 2022. Specifies these customer-generators shall pay all nonbypassable charges, and shall not be eligible for a transitional period where compensation rates for the exported solar are gradually adjusted (i.e., the “avoided cost calculator glide path”).
- 2) Requires, on or after January 1, 2026, new property owners inheriting solar systems on their purchased property to take NEM service on whichever tariff is current after December 1, 2022. Specifies these customer-generators shall pay all nonbypassable charges, and shall not be eligible for a transitional period where compensation rates for the exported solar are gradually adjusted (i.e., the “avoided cost calculator glide path”).
- 3) Authorizes the California Public Utilities Commission (CPUC) to adopt a new tariff for the customer-generators who are subject to either the 10-year transition or the new property transition of 1) and 2) above. Authorizes the CPUC to require the new tariff if it results in lower cost to ratepayers not participating in a NEM tariff.
- 4) Starting January 1, 2026, requires NEM customers to no longer receive the Climate Credit.

EXISTING LAW:

- 1) Requires every electric utility, defined to include electrical corporations, local publicly owned electric utilities, and electrical cooperatives, to develop a standard contract or tariff for NEM, for generation by a renewable electrical generation facility, and to make this contract or tariff 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. (Public Utilities Code § 2827)
- 2) Requires the CPUC, for a large electrical corporation, as defined, to have developed a second standard contract or tariff to provide NEM to additional eligible customer-generators in the electrical corporation’s service territory and imposes no limitation on the number of new eligible customer-generators entitled to receive service pursuant to this second standard contract or tariff. (Public Utilities Code § 2827.1)

- 3) Requires the CPUC to ensure that the second standard contract or tariff made available to eligible customer-generators by large electrical corporations ensures that customer-sited renewable distributed generation continues to grow sustainably. Requires the CPUC, in developing this standard contract or tariff, to include specific alternatives designed for growth among residential customers in disadvantaged communities. (Public Utilities Code § 2827.1(b)(1))
- 4) Establishes the policy that all of the state's retail electricity be supplied with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, and 100% of electricity procured to serve all state agencies by December 31, 2035, for a total of 100% clean energy. Requires the California Public Utilities Commission (CPUC), in consultation with the California Energy Commission (CEC), California Air Resources Board (CARB), and all California balancing authorities, to issue a joint report to the Legislature by January 1, 2021, reviewing and evaluating the 100% clean energy policy. (Public Utilities Code § 454.53)
- 5) Requires the CPUC to allocate up to 15% of revenues received by an electrical investor-owned utility (IOU) as a result of the direct allocation of greenhouse gas (GHG) allowances to electrical distribution utilities to be used for clean energy and energy efficiency projects; and otherwise requires revenues to be credited directly to residential, small business, and emission-intensive trade-exposed customers. This direct crediting is known as the “Climate Credit.” (Public Utilities Code 748.5)

FISCAL EFFECT: Unknown. This bill is keyed fiscal, and will be referred to the Assembly Committee on Appropriations for its review.

CONSUMER COST IMPACTS: Unknown. This bill will result in cost increases to certain solar customers. Opponents to this measure state it will impact 2 million solar customers; however, that number seems to capture all NEM customers in the state,¹ of which this bill will impact a subset at any given time. Proponents of this measure claim significant savings will result to non-NEM-participants, which comprise the majority of electricity customers. The author estimates \$54.4 billion in savings through 2043 from the 10-year sunset provision; \$2.5 billion in savings through 2043 from the home sale provision; and \$1.1 billion reallocated through 2030 for the Climate Credit provision.²

BACKGROUND:

Net Energy Metering (NEM) – Electric ratepayers have long subsidized the cost of customer-sited electricity generation from renewable resources, which has overwhelmingly meant electricity generated by rooftop solar. One of the primary forms of subsidy has been the availability of NEM tariffs, which state law requires each electrical IOU to offer to any customer with rooftop solar (or other on-site renewable generating facility). Under the tariff, such a customer is compensated by the utility for the electricity the customer exports to the electric grid in excess of the electricity the customer draws from the grid.

¹ California Distributed Generation Statistics notes 1.8+million cumulative NEM projects in state as of Q1 2025. <https://www.californiadgstats.ca.gov/charts/nem/>

² These numbers have not been verified by the committee. They were provided as a supplemental analysis by the author.

California's NEM program started in 1997, prompted by SB 656 (Alquist, Chapter 369, Statutes of 1995). It allows customers who install eligible renewable electrical generation facilities to serve onsite energy needs and receive credits on their electric bills for surplus energy sent to the electric grid. Most customer-sited, grid-connected solar in California is interconnected through NEM tariffs. Enrollment in the first NEM program, now colloquially known as "NEM 1.0," continued and was phased out between 2016 and 2017. NEM 1.0 was not meant to be cost-effective. Rather, the NEM tariff, and the larger state program, was meant to encourage adoption of rooftop solar so that manufacturing and installation costs could come down. This effort was successful: rooftop solar installation grew considerably from 2006 through 2012.

The Legislature called for the revision of NEM 1.0 per AB 327 (Perea, Chapter 611, Statutes of 2013) primarily to address the cost associated with the full retail credits available under the tariff. The CPUC responded with what is commonly referred to as NEM 2.0 in 2016. Customers taking service under that tariff – NEM 2.0 – pay the cost to connect to the grid; take service on a "time-of-use" rate plan; and pay "non-bypassable" charges that are not offset with surplus energy credits. On August 27, 2020, the CPUC initiated Rulemaking 20-08-020 to develop a successor to the NEM 2.0 tariff, as part of the requirement in statute and a commitment in a previous decision to review the current tariff to address the shift in costs to nonparticipating customers. The CPUC released a proposed decision in December 2021.³ However, the final decision was delayed while the CPUC considered party comments and evaluated alternatives. On December 15, 2022 the CPUC adopted a new decision establishing the Net Billing Tariff (NBT), or colloquially NEM 3.0.⁴

The NBT applied to customers who submit an interconnection application on or after April 15, 2023. The NBT made a number of changes from NEM 2.0, replacing export compensation tied to the retail rate with the avoided cost calculator (ACC) rate. The retail rate is typically a fixed amount, around 30-40¢/kWh, depending on service territory.⁵ The ACC-calculated rate is variable, changing for each hour per month, with different values on weekends versus weekdays. These values are meant to track grid conditions, and can range from 0.03-0.05¢/kWh on the low end for most months of the year to over \$1-\$4/kWh on the high end for select evenings (5-7pm) in August-October.⁶

The NBT eliminated the netting interval, meaning customers' imports on the first meter channel are charged the import retail rate (fixed, usually higher prices), and all recorded exports on the second meter channel are credited the retail export compensation rate (variable, only high during certain evenings).⁷ The consequence of eliminating the netting interval is that behind-the-meter consumption is incentivized (it effectively earns the retail rate), encouraging customers to install both electric vehicle charging equipment and battery storage paired with their solar. The NBT decision also did not affect existing rooftop solar customers; those legacy NEM 1.0 and NEM 2.0 customers remain on their tariff. The NBT decision also did not include any charges unique

³ See *Decision Revising Net Energy Metering and Subtariffs*, CPUC, December 13, 2021, at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M430/K903/430903088.PDF>

⁴ D. 22-12-056

⁵ See PG&E's 2024 residential TOU at ~45¢ here: https://view.officeapps.live.com/op/view.aspx?src=https://www.pge.com/assets/rates/tariffs/Res_Inclu_TOU_Current.xlsx

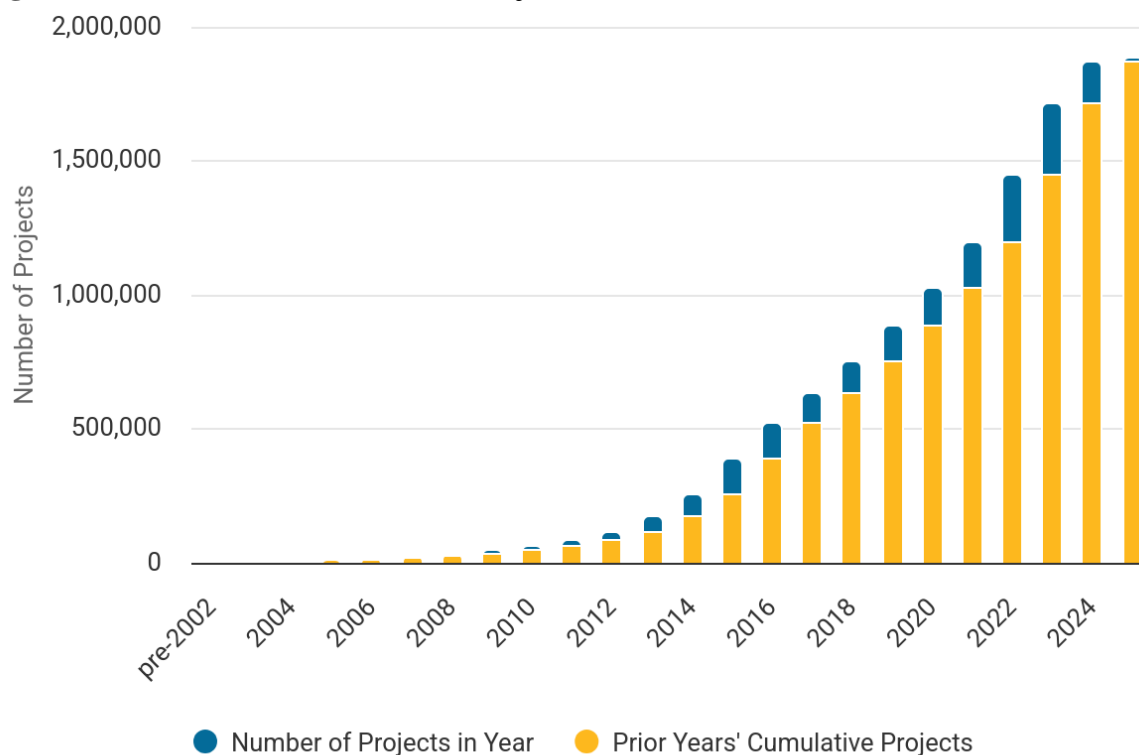
⁶ Values relative to SDG&E's Energy Export Credits under the NBT; <https://www.sdge.com/solar/solar-billing-plan/export-pricing>

⁷ Pg. 129, D. 22-12-056

to solar customers (despite early draft decisions doing that). The result of these changes led to a drop in the compensation rooftop solar customers will receive, increasing the payback period to 9 years.⁸

According to the Distributed Generation Statistics database, as of 2024, the NEM program had enabled 1.8 million project installations, equating to roughly 16 gigawatts (GWs) of customer-sited renewable generation, almost all of which is rooftop solar.⁹ Now, NEM systems reduce the demand on the electric grid by as much as 25% during midday when the sun is shining.¹⁰

Figure 1: Cumulative NEM Solar PV Projects in California, 2002-2025¹¹



The California Climate Credit – California ratepayers receive regular bill credits as part of the proceeds arising from their utility’s participation in the state’s cap-and-trade program. The cap-and-trade program applies to facilities that emit more than 25,000 metric tons of carbon dioxide equivalents per year, as well as any facilities with lower emissions that opt-in to the program. These facilities include large electric power plants, large industrial plants, and fuel distributors (e.g., natural gas and petroleum).

The California Air Resources Board (CARB) distributes allowances to the cap-and-trade market through direct allocation to regulated entities and through the sale at auction to all market participants. Electric and natural gas IOUs are required to consign to auction a certain portion of

⁸ CPUC, “Fact Sheet: Modernizing NEM to Meet California’s Reliability and Climate Goals,” November 10, 2022. <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/net-energy-metering-nem/nemrevisit/final-fact-sheet-nem.pdf>

⁹ <https://www.californiadgstats.ca.gov/charts/nem/>

¹⁰ CPUC Fact Sheet; “Modernizing California’s Net Energy Metering Program to Meet our Clean Energy Goals.” December 13, 2021.

¹¹ Downloaded on 04.25.2025 from <https://www.californiadgstats.ca.gov/charts/>

the GHG allowances they receive. The proceeds generated from such sales must be primarily used for the benefit of retail ratepayers. For electric IOUs customers, these funds are returned via a credit on their utility bills, known as the Climate Credit. Statute requires 85% of the funds to be used for the Climate Credit and permits the CPUC to allocate the remaining 15% for clean energy and energy efficiency projects. Proceeds are returned to customers via three mechanisms – the industrial assistance credit, the small business climate credit, and the residential Climate Credit. The residential Climate Credit is provided on residential customers' bills twice annually in the spring and fall

COMMENTS:

- 1) *Author's Statement.* According to the author, "California has been a global leader in renewable energy development. While rooftop solar is an essential tool in our fight against climate change, current solar subsidies have shifted the costs of maintaining the grid onto those who do not utilize solar panels. AB 942 seeks modest, timely changes to the net energy metering subsidies that reduce the cost shift on non-solar customers. Our energy bills are becoming increasingly unaffordable, and we must address this ratepayer inequity. This bill strikes a fair balance by preserving the benefits of rooftop solar, while also instituting a more equitable system for all ratepayers."
- 2) *Purpose of Bill.* Rooftop solar is key to California's clean energy future, and the state has led the nation with over 2 million rooftop solar systems installed.¹² This growth has largely been driven by Net Energy Metering (NEM), a program that gives solar customers financial benefits for generating their own electricity. While the NEM subsidy has successfully supported solar adoption, it has faced growing criticism, with many calling for reforms to reduce its value – particularly for existing customers – so that non-solar customers aren't left covering a disproportionate share of the costs.

Under NEM, solar customers reduce their bills by using their own electricity and selling extra power back to the grid. The value of that exported power depends on which vintage of NEM the customer-generator enjoys, as discussed previously. These arrangements often don't fully cover the fixed costs of maintaining the electric grid and funding public programs. The author points to a NEM 2.0 study to justify this, noting NEM 2.0 customers pay only 9–18% of their actual service costs while the remaining 82–91% is paid by non-solar customers.¹³ While recent reforms to the NEM value, under the Net Billing Tariff (NBT) mentioned above, have lessened this, the CPUC recently reported the NBT still results in cost borne by nonparticipants at about 76-82% of what was borne under NEM 2.0.¹⁴

The author – along with academics,¹⁵ labor, the CPUC, the Public Advocates Office (PAO), environmental organizations,¹⁶ and utilities – point to the cost of the NEM/NBT program as a contributor to California's high electricity bills. Recently, the CPUC in

¹² <https://www.californiadgstats.ca.gov/charts/nem/>

¹³ Verdant, *NEM 2.0 Lookback Study*; January 21, 2021; https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/net-energy-metering-nem/nem-evaluation/nem-2_lookback_study.pdf

¹⁴ Pg. 12; CPUC; *Response to Executive Order N-5-24*; February 18, 2025; <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/reports/cpuc-response-to-executive-order-n-5-24.pdf>

¹⁵ <https://energyathaas.wordpress.com/2024/04/22/californias-exploding-rooftop-solar-cost-shift/>

¹⁶ Such as NRDC, <https://www.nrdc.org/bio/julia-lamare/californias-nem-30-must-grow-rooftop-solar-sustainably>

responding to Governor Newsom’s Executive Order N-5-24 on energy affordability, suggested various reforms to the NEM/NBT program, specifically to 1) shorten the legacy periods, noting almost all NEM customers have more than 10 years before they will be defaulted onto NBT; 2) tie compensation for excess generation from solar systems to rates in effect when NEM customers interconnected; 3) establish a Grid Benefits Charge for NEM and NBT customers; and 4) tie legacy periods to the customer, not the system. The CPUC specifically noted systems could be converted to the NBT when the home changes ownership.¹⁷

This bill brings forward two of the four policies suggested by the CPUC, in an effort to lower electricity costs to most Californians.

- 3) *The Cost Shift*. Whether one believes the policies put forward in this measure will result in actual cost savings to non-NEM customers will largely be determined by the belief – or disbelief – in the solar cost-shift. Cost shifting and cost effectiveness are heavily contested concepts. The controversy associated with NEM is that the customers with NEM (most of whom have roof-top solar) are subsidized by customers without NEM (i.e. “non-participants”). Extensive study has occurred over the past decade describing and categorizing the cost shift. According to a recent report by PAO, the annual cost of NEM on non-participants has approximately doubled since 2021, resulting in an estimated \$8.5 billion for the program in 2024 alone.¹⁸ For reference, PAO notes the cost of NEM was approximately \$3.4 billion in 2021.

The CPUC in its annual utility cost report has noted “three critical and overlapping policy fronts must be actively managed to address the risk of high electric rates.” These include ballooning wildfire expenses, the need to ensure low-income customers benefit from electrification, and the need to mitigate cost shifts from DER incentives.¹⁹

Opponents of this bill, however, repeatedly call the “so-called ‘cost-shift’ a utility fabrication.” They raise issue with a number of details in the calculations used by PAO and others to quantify the cost shift. In February 2025, solar advocates released a report titled “*Rooftop Solar Reduces Costs for All Ratepayers*” by M.Cubed Consulting and the California Solar & Storage Association (CALSSA). The report challenges the notion that rooftop solar leads to a cost shift burdening non-solar customers. Instead, it claims that rooftop solar provided a net benefit of \$1.5 billion to all California ratepayers in 2024, primarily by reducing peak electricity demand and deferring expensive grid infrastructure investments.²⁰ The report argues that rooftop solar not only benefits individual adopters but also contributes to overall grid efficiency and cost savings for all ratepayers.

¹⁷ Pg. 16-17; CPUC; *Response to Executive Order N-5-24*; February 18, 2025; <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/reports/cpuc-response-to-executive-order-n-5-24.pdf>

¹⁸ CalPAO, “Rooftop solar incentive to cost customers without solar an estimated \$8.5 billion by the end of 2024.” August 22, 2024. <https://www.publicadvocates.cpuc.ca.gov/press-room/reports-and-analyses/nem-cost-shift-methodology-fact-sheet-2024>

¹⁹ Pg. 17, CPUC, *2022 Senate Bill 695 Report*, May 2022. <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2022/2022-sb-695-report.pdf>

²⁰ McCann, Heavner, Del Chiaro; *Rooftop Solar Reduces Costs for All Ratepayers*; February 2025; https://mcubedecon.com/wp-content/uploads/2025/02/calssa_rooftop-solar-reduces-costs-for-all-ratepayers-2025.pdf

This report, and the analysis behind it, has been the subject of extensive spreadsheet exchanges, most notably by the PAO²¹ and Professor Severin Borenstein at the University of California Berkeley.²² The critiques to the report center on the methodology, highlighting issues such as the inclusion of self-consumed solar energy in cost calculations and the use of average retail rates and accounting for time-of-use variations. Borenstein argues that these factors lead to an underestimation of the actual cost shift by the report's authors.

This debate over the “cost-shift” may lead observers to wonder what is accurate: do rooftop solar systems result in \$8.5 billion in costs to non-participants, as asserted by the PAO? Or \$4 billion as calculated by Borenstein? Or does it result in \$1.5 billion in grid benefits as asserted by the rooftop solar industry? Regardless of numbers, most of the debate boils down to a philosophical discussion around “self-generation” and grid usage. Supporters of rooftop solar state their on-site “self-generation” reduces overall grid usage. While likely accurate on a going-forward basis – although the degree of that reduction is also part of the extensive cost-shift discussion – this view often ignores the grid costs already in place at time of install. Because most operational and capital costs (i.e., grid costs) are fixed in advance and allocated on an annual basis, programs that provide rate relief for one customer group results in a shift of those operational and fixed costs to another. The first group gets a rate or bill decrease, while the second group gets a rate increase.²³

- 4) *Contractual Obligations.* Regardless of which side of the cost-shift debate one may fall, the actual result of this measure will be to change the subsidies approximately 2 million Californians receive. This change won't occur overnight; nor will it occur on January 1, 2026, should this bill become law. As noted above, the CPUC has reported almost all NEM customers have more than 10 years before they will be defaulted onto NBT.²⁴ Homes sparingly turn over in the state, below 300,000 annually for the last few years.²⁵ Likely only a fraction of those homes would have a solar system and be subject to this measure. However, the proponents of this measure claim significant savings will result to non-NEM-participants in the future. As noted above, the author estimates \$54.4 billion in savings through 2043 from the 10-year sunset provision; \$2.5 billion in savings through 2043 from the home sale provision; and \$1.1 billion reallocated through 2030 for the Climate Credit provision.²⁶

²¹ Shelly Lyser, “Response to Claims that Rooftop Solar Creates Net Benefits for Non-Solar Customers;” PAO; November 25, 2024; <https://www.publicadvocates.cpuc.ca.gov/press-room/commentary/241125-nem-cost-shift-rebuttal>

²² Severin Borenstein, “Reply to Richard McCann’s “How California’s Rooftop Solar Customers Benefit Other Ratepayers Financially to the Tune of \$1.5 Billion;” updated February 3, 2025; <https://faculty.haas.berkeley.edu/borenste/ResponseMcCann250127.pdf>

²³ Shelly Lyser, “Response to Claims that Rooftop Solar Creates Net Benefits for Non-Solar Customers;” PAO; November 25, 2024; <https://www.publicadvocates.cpuc.ca.gov/press-room/commentary/241125-nem-cost-shift-rebuttal>

²⁴ Pg. 16-17; CPUC; *Response to Executive Order N-5-24*; February 18, 2025; <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/reports/cpuc-response-to-executive-order-n-5-24.pdf>

²⁵ https://www.paloaltoonline.com/real-estate/2024/01/31/california-sees-biggest-drop-in-annual-homes-sales-since-2007/?utm_source=chatgpt.com

²⁶ These numbers have not been verified by the committee. They were provided as a supplemental analysis by the author.

While these savings may benefit non-NEM-participants, NEM-participants would experience bill increases. The fairness of such an action not only depends on one's view of the cost-shift, but also whether one views the NEM tariff as a "contract" or binding agreement to the customer-generators. Opponents note this bill would "break 2 million rooftop solar contracts." The sponsors of this bill state this "claim is baseless." They note "there is no such thing as a NEM contract. NEM is an electric *rate structure*... The 20-year legacy period for solar customers to access a NEM rate structure was created entirely by the CPUC in its decisions [D. 14-03-041; D. 16-01-044] adopting these rate structures so that before transitioning to a newly adopted rate structure customers had a reasonable opportunity to recoup their solar system investments."²⁷

While accurate that the CPUC has the authority to change the NEM rate structure, as the 2022 NBT decision demonstrates, the CPUC has to date declined to adopt any changes retroactively. The bill sponsors point to IOU interconnection agreements as evidence that the customer-generator is aware that the NEM tariff is not a binding contract, where these agreements note the rate schedules "shall at all times be subject to such changes or modifications by the Commission."²⁸

The CPUC's literature to solar customers, however, does not clarify this matter. A 2016 Decision directed CPUC Energy Division staff, in collaboration with stakeholders, to consider NEM consumer protection measures.²⁹ In September 2018, the CPUC adopted a process to create a solar information packet for consumers,³⁰ now called the "California Solar Consumer Protection Guide." The CPUC requires solar companies to collect signed copies of the Guide to ensure customers are aware of their rights prior to signing up for solar. Last updated in March 2022, the Guide notes "Currently PG&E, SCE, and SDG&E customers are *guaranteed NEM for 20 years* from the time their solar system starts operating. Your electricity rate, however, is subject to change."³¹ It is confusing to state NEM is both guaranteed but also subject to change. It is unclear how customers interpret such a provision.

The Guide also consistently calls the solar arrangement a "contract." In addition, pursuant to AB 1070 (Lorena Gonzalez, Chapter 662, Statutes of 2017) the Contractors State License Board (CSLB) and the CPUC developed a "solar energy system disclosure document" for solar energy customers. That document, required to be printed on the front page of all solar system paperwork, also is called a "contract."³² While this may appear just a matter of semantics, the consistent messaging to solar customers is that they are

²⁷ Scott Wetch; AB 942 sponsor letter to Chair Petrie-Norris; "Re: AB 942 – False Claims by the Rooftop Solar Industry;" April 21, 2025.

²⁸ Southern California Edison's NBT or NEM Solar and Wind Generating Facility 10kW or less Interconnection Agreement; pg. 5, Sec. 12;

<https://edisonintl.sharepoint.com/teams/Public/TM2/Shared%20Documents/Forms/AllItems.aspx?id=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FForms%2FInterconnection%20Agreements%2FELECTRIC%5FFORMS%5F14%2D923%2Epdf&parent=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FForms%2FInterconnection%20Agreements&p=true&ga=1>

²⁹ CPUC D. 16-01-044; <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M158/K181/158181678.pdf>

³⁰ CPUC D.18-09-044; <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M230/K892/230892616.PDF>

³¹ Pg. 17; CPUC; *California Solar Consumer Protection Guide*; March 2022; https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/solar-guide/solarguide22_011922.pdf

³² <https://www.cslb.ca.gov/Resources/Contractors/SolarDisclosureDoc.pdf>

engaging in a contract, and one – as noted by the CPUC materials to these customers – that is guaranteed for 20 years. *Given this, the committee may wish to proceed cautiously, and recommend striking subdivision (a) of § 2827.2 of the bill, which would remove the 10-year sunset.*

- 5) *Market Implications.* Many of California’s rooftop solar companies are publicly-traded companies operating in a market, and needing to attract investors to keep company activities operational. One financial strategy emerging over the last decade has been the creation of asset-back securities (ABS) secured by solar financing agreements. An ABS is a group of loans that are bundled together for the purpose of being sold to investors. Investors purchase these bundled loans, and receive the interest and principal payments. Financial institutions commonly do this with any consistent revenue stream, such as car loans, credit card debt, or mortgages. These loans are then bundled into ABS that are bought to make claim on the cash flows generated by these grouped assets.

Within the California solar industry, the committee is aware of two structures regarding asset backed securities:

- Some percentage of a customer’s savings from NEM (or the NBT) is passed through to the security holder. Under this scenario, the security holder would absorb any change in the tariff.
- A customer’s payments on their solar system lease go to the security holder. Under this scenario, the customer absorbs any change to the tariff.

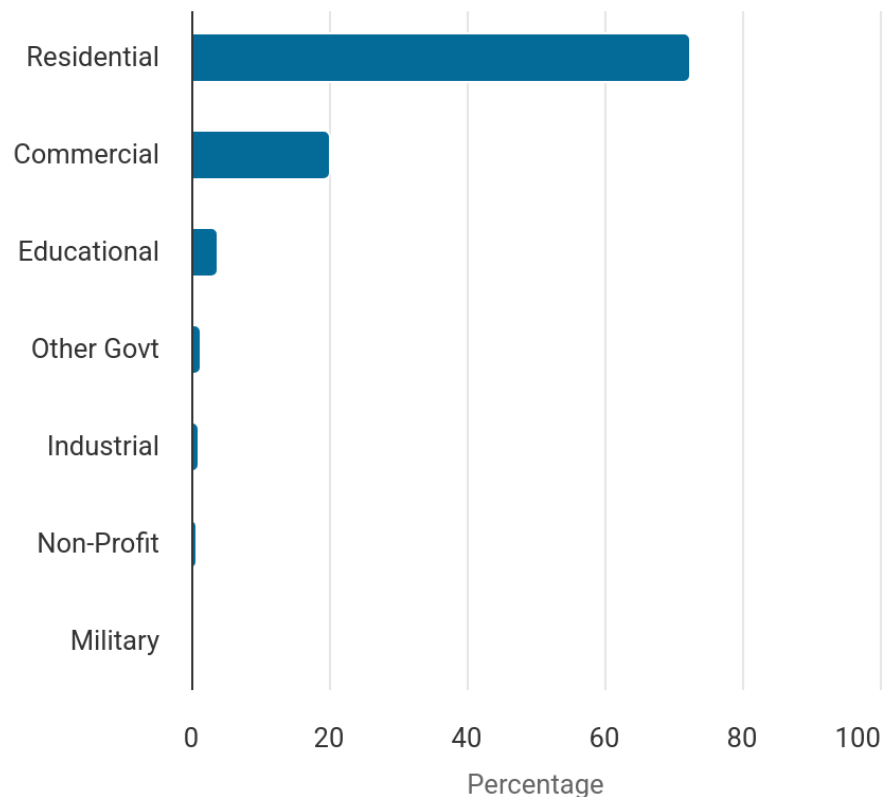
If solar contracts are bundled into ABS, altering the terms of those agreements – as proposed by this measure – can impact the value and risk profile of the underlying securities. Investors in ABS would likely rely on predictable cash flows from solar customers, and if those revenues are reduced due to policy shifts, the market value of the securities may decline. This could lead to investor losses, reduced financing for future solar projects, and even legal challenges. However, many factors go into this scenario. ABS is just one type of debt financing for solar. While a growing segment of solar financing – with over \$13 billion of solar ABS issued since 2013³³ – it is unclear how retroactive changes to NEM arrangements may impact the industry or the investor community as a whole.

- 6) *Along for the Ride.* While much of the discussion, and the principal focus of this analysis, has been the impact of this bill on residential rooftop solar customers in IOU territory, this bill’s impact is broader than just those customers. Multifamily housing, eligible for both NEM and Virtual-NEM tariffs, would be impacted. In those arrangements landlords would be making decisions about selling properties that could impact the NEM benefit enjoyed by the tenant. Schools, agriculture, and other commercial or industrial customers also participate in NEM arrangements and would be impacted. Collectively, these non-residential groups make up approximately 30% of the NEM market, as shown in Figure 2. Rooftop solar arrangements in publicly owned utility territories would also be subject to this measure. The variations in the ownership arrangements across these sectors,

³³ Project Bond Focus; “U.S. Residential Solar ABS 101;” January 2022; <https://www.ca-cib.com/sites/default/files/2022-03/Project-Bond-Focus-Solar-ABS-2022.pdf>

utilities, and program designs are numerous; the unique impacts of this bill felt by each of these variations is currently not fully known by the committee.

Figure 2: NEM Sector information, ~1.55 million projects were included.³⁴



7) *Related Legislation.*

AB 1104 (Pellerin) exempts solar energy producers with an unspecified number of solar facilities selling power to an unspecified number of customers from state law applicable to “electrical corporations.” Additionally, provides that if a renewable energy facility (like a solar or wind project) is built and receives electric service under a standard contract or tariff, the entity that hires a contractor to build the facility is not considered an “awarding body” under California public works law. Status: *Set for hearing* in this committee on April 30, 2025.

8) *Prior Legislation.*

AB 2256 (Friedman) directs the CPUC to conduct an independent cost-of-service analysis evaluating the standard contract or tariff developed by the CPUC’s decision, “Decision Revising Net Energy Metering Tariff and Subtariffs,” issued December 15, 2022. Status: Held – Assembly Committee on Appropriations.

³⁴ <https://www.californiadgstats.ca.gov/charts/>

SB 1374 (Becker, 2024) makes changes to a November 2023 decision by the CPUC concerning the NEM program, including the compensation treatment of electric utility customers of apartment buildings and public schools who install solar and other renewable generating facilities on the customer's side of the meter. Status: Returned without Governor's signature.

AB 1139 (Lorena Gonzalez) directed the CPUC to adopt a new NEM standard contract or tariff, which the bill defines as the "replacement tariff," by August 1, 2022, and requires an electrical IOU to offer the replacement tariff to an eligible customer-generator by December 31, 2023. If the CPUC fails to act, the CPUC is required to adopt a new tariff under terms prescribed by the bill. Status: Died – Assembly Inactive file.

AB 1070 (Lorena Gonzalez) requires the CSLB in collaboration with the CPUC to develop and make available a "solar energy system disclosure document" (disclosure) for solar energy customers, compile an annual report documenting consumer complaints relating to solar contractors and, develop standardized inputs and assumptions to be used in the calculation and presentation of electric utility bill savings to a consumer. Status: Chapter 662, Statutes of 2017.

AB 327 (Perea) instituted several rate reforms and required the CPUC to adopt a successor NEM tariff no later than December 31, 2015. Status: Chapter 611, Statutes of 2013.

SB 656 (Alquist) required every electric utility, including electrical corporations, which 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. Status: Chapter 369, Statutes of 1995.

REGISTERED SUPPORT / OPPOSITION:

Support

California Federation of Labor Unions, Afl-cio
California State Association of Electrical Workers – *co-sponsor*
California Wind Energy Association
Coalition of California Utility Employees – *co-sponsor*
Edison International and Affiliates, Including Southern California Edison
Pacific Gas and Electric Company and its Affiliated Entities
San Diego Gas and Electric Company
State Building and Construction Trades Council
The Utility Reform Network (TURN)

Oppose

1000 Grandmothers for Future Generation
350 Bay Area Action
350 Conejo / San Fernando Valley
350 Humboldt
350 Sacramento

350 Santa Barbara
350 South Bay Los Angeles
350 Southland Legislative Alliance
350 Ventura County Climate Hub
ACT Now Bay Area
Advanced Energy United
Aft Guild, Local 1931
Alameda County Office of Education
Alliance of Californians for Community Empowerment (ACCE)
Anahuak Youth Soccer Association
Association for Energy Affordability, INC.
Aurora Solar
Ban Sup (single Use Plastic)
Bay Area Clean Air Coalition
Beth Eden Baptist Church
Bowman Change, INC.
Cafe Coop
Cal Poly Initiative for Climate Leadership and Resilience
California Alliance for Community Energy
California Association of School Business Officials (CASBO)
California Democratic Renters Council
California Energy Storage Alliance
California Environmental Justice Coalition
California Interfaith Power and Light
California's Coalition for Adequate School Housing (CASH)
Californians for Energy Choice
Californians for Western Wilderness
Calpirg
Center for Biological Diversity
Center for Community Energy
Center for Sustainable Energy
Centro Binacional Para El Desarrollo Indígena Oaxaqueño
Change Begins With Me
Citizens' Climate Lobby, Santa Cruz Chapter
City of Stockton Mayor
Clean Solar
Cleaneearth4kids.org
Climate Action California
Climate Action Mendocino
Climate Breakthrough
Climate Hawks Vote
Climate Reality Project San Diego
Climate Reality Project, Orange County Chapter
Coalition for Environmental Equity and Economics (CEEE)
Cofem (the Mexican Federations in the United States)
Comite Pro Uno
Community Corp. of Santa Monica
Consumer Watchdog
Courageous Resistance and Indivisible of the Desert

Davis United Methodist Church
Dean Democratic Club of Silicon Valley
Democratic Club of West Orange County
Designing Accessible Communities
E & J Gallo Winery
Eah Housing
Ecology Center
Ejcw (environmental Coalition for Water Justice)
Emerging Leaders Program of the Leadership Institute At Allen Temple Baptist Church
Environment California
Environmental Action
Environmental Justice Coalition for Water
Environmental Working Group
Environtees.org
Fecamin (federation of Clubs and Associations of Michoacanos in North America)
Federación De Clubes Colima
Federación De Clubes Y Asociaciones
Federación De Guanajuatenses
Federación De Nayaritas En Estados Unidos
Federación Duranguense USA
Forefront Power, LLC
Fortune
Fractracker Alliance
Fraternidad Sinaloense De California Fsc
Fresh Air Vallejo
Fresno County Board of Supervisors
Fridays for Future
Glendale Environmental Coalition
Good Neighbor Steering Committee of Benicia
Green the Church
Hammond Climate Solutions Foundation
Hogan Mfg
Humboldt County Democratic Central Committee
Indivisible California Green Team
Indivisible Green Team
Indivisible Marin
Indivisible Resisters Contra Costa
Indivisible San Jose
Indivisible Santa Cruz County
Inspiration Transportation
Jerry Dyer, Mayor of City of Fresno
Local Clean Energy Alliance
Long Beach Alliance for Clean Energy
Long Beach Gray Panthers
Los Angeles Unified School District
Mcgee Avenue Baptist Church
Morongo Basin Conservation Association
Mujeres De LA Tierra
Mujeres Unidas Sirviendo Activamente Musa

Napa Climate Now!/350 Bay Area Group
Norcal Elder Climate Action
Oil & Gas Action Network
Organización Regional De Oaxaca Por El Respeto Y LA Defensa De Nuestra Cultura
Our City San Francisco
Pearlx Infrastructure, LLC
Peninsula Interfaith Climate Action
Phippen
Project Green Home
Reclaim Our Power Utility Justice Campaign
Reclaim Our Power!
Resources for Community Development
Rooted in Resistance
Rooted in Resistance (indivisible Ventura)
San Diego Earthworks
San Diego Unified School District
San Diego350
San Francisco Bay Physicians for Social Responsibility
San Joaquin Urban Native Council
San Luis Obispo Mothers for Peace
San Mateo Climate Action Team
Santa Cruz Climate Action Network
Santa Cruz Indivisible
School Energy Coalition
School Project for Utility Rate Reduction (SPURR)
Scientist Rebellion Turtle Island West
Sdrpu
Sierra Club California
Socal 350 Climate Action
Socal Elders Climate Action
Socioenergetics Foundation
Solar Energy Industry Association
Solar Rights Alliance
Solar United Neighbors Action
Sonoma County Climate Activist Network (SOCOCAN!)
Sonora USA
Stand.earth
Steering Committee
Sunflower Alliance
Sustainable Marin
Sustainable Systems Research Foundation
The Clean Coalition
The Climate Alliance
The Climate Center
The Federation of Hidalguenses in California
Third ACT
Third ACT Socal
Tnp Farms
Todos Unidos

Torrance Democratic Club
Ucsd Green New Deal
Undauntedk12
Unitarian Universalist Church in Redwood City
United Democrats of Southern Solano County
Urban Ecology Project
Valley Center Municipal Water District
Valley Center-pauma Unified School District
Vote Solar
Zerow.org

Oppose Unless Amended

Agricultural Council of California
Agricultural Energy Consumers Association
CA Cotton Ginners & Growers Association
California Citrus Mutual
California Climate and Agriculture Network
California Farm Bureau
California Fresh Fruit Association
California League of Food Producers
California Poultry Federation
California Tomato Growers Association
Grower-shipper Association of Central California
Milk Producers Council
Nisei Farmers League
Western Growers Association
Western Tree Nut Association
Wine Institute

Analysis Prepared by: Laura Shybut / U. & E. / (916) 319-2083