

Date of Hearing: April 24, 2024

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY

Cottie Petrie-Norris, Chair

AB 3111 (Calderon) – As Introduced February 16, 2024

**SUBJECT:** Distributed energy resources and aggregated distributed energy resources: reporting

**SUMMARY:** requires distributed energy resources (DER) and aggregated DER, as specified, to report to the California Energy Commission (CEC) various details regarding the location, size, and contracting information of the resources when seeking a permit or enrolling in an aggregation program. Additionally requires the DER applicant to attest, under penalty of perjury, to a prescribed definition of “electrical corporation.” Requires the CEC to publicly notice all filings pursuant to this bill within five days of receipt. Specifically, **this bill:**

- 1) Requires either an applicant or an aggregator – when submitting a permit to install or interconnect, or when enrolling DERs in an aggregator program, respectively – to provide notice to the CEC of the name, location, list of DERs, generating or storage capacity of the DERs, the contracts for electricity or resource adequacy of the DERs, and a specified attestation.
- 2) Requires the CEC to publicly post these notices on its website within five days of receipt of the notice.
- 3) Specifies as part of the notice that the applicant or aggregator must attest, under penalty of perjury, that any corporation or person owning, controlling, operating, or managing any electric plant is an electrical corporation, as defined in statute.
- 4) Defines “distributed energy resource” as a customer-sited solar energy system with a generating capacity above 100 kilowatts (kW), or a customer-sited battery energy storage system with a storage capacity above 80 kilowatt-hours (kWh).
- 5) Defines “aggregated distributed energy resource” as a DER that may be controlled to act as a coordinated unit and, alone or combined, have a generating capacity above 100 kW or a storage capacity above 80 kWh.

**EXISTING LAW:**

- 1) Establishes the California Public Utilities Commission (CPUC) has regulatory authority over public utilities, including electrical corporations. (California Constitution Article XII, §§ 3 and 4)
- 2) Defines “electrical corporation” as inclusive of every corporation or person owning, controlling, operating, or managing any electric plant, as defined, for compensation within this state, except as specified. (Public Utilities Code § 218)
- 3) Defines “electric plant” as inclusive of all real estate, fixtures and personal property owned, controlled, operated, or managed in connection with or to facilitate the production, generation, transmission, delivery, or furnishing of electricity for light, heat,

or power, and all associated equipment used for the transmission of electricity for light, heat, or power. (Public Utilities Code § 217)

- 4) Defines “microgrid” to mean an interconnected system of loads and energy resources, including distributed energy resources, as defined, energy storage, demand response tools, or other management, forecasting, and analytical tools, appropriately sized to meet customer needs, within a clearly defined electrical boundary that can act as a single, controllable entity, and can connect to, disconnect from, or run in parallel with larger portions of the electrical grid. (Public Utilities Code § 8370)
- 5) Defines “distributed energy resource” as an electric generation or storage technology that complies with the emissions standards adopted by the State Air Resources Board pursuant to the distributed generation certification program. (Public Utilities Code § 8370)
- 6) Requires the CPUC, in consultation with the California Energy Commission (CEC) and the California Independent System Operator (CAISO), to take specified actions by December 1, 2020, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations, including developing microgrid service standards necessary to meet state and local permitting requirements and developing methods to reduce barriers for microgrid deployment without shifting costs between ratepayers. (Public Utilities Code § 8371)
- 7) Requires local publicly owned electric utilities (POUs) to develop and make available a standardized process for the interconnection of microgrids, including separate rates and tariffs, as necessary. Specifies the microgrid rate design shall result in no cost shifts from a microgrid customer to a nonmicrogrid customer. (Public Utilities Code § 8372)

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

#### **BACKGROUND:**

*Growth of customer-sited DERs* – DER is a catch-all term used for a variety of generation, storage, or load modifying resources that, at their most basic level, are connected to, or most closely interacting with, the utility distribution system. DERs include both generation technologies that reduce customer load when consumed on-site (e.g., customer-sited rooftop solar) and load modifying technologies that reduce customer load by actively shifting or reducing customer energy usage (e.g., demand response programs). In other words, DERs can affect either the supply or demand of energy, but are usually located behind the customer meter; and thus to the larger grid may be viewed solely as modifying customer load. The majority of DERs in California are customer-sited rooftop solar arrays.

Today, California has over 16 gigawatts (GW) of customer-sited (also called “behind-the-meter”) solar resources.<sup>1</sup> These resources represent a large fraction of generation on California’s

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<sup>1</sup> California Distributed Generation Statistics, <https://www.californiadgstats.ca.gov/>; accessed March 30, 2024.

grid, which in 2018 was roughly 80 GWs.<sup>2</sup> By 2045, the CEC predicts rooftop-solar to contribute 39 GWs.<sup>3</sup> However, DERs have traditionally been “visible” to the electric grid, and CAISO, as load reduction resources, where their deployment reduces the overall system demand from a utility’s territory. For example, when behind-the-meter (BTM) rooftop solar reduces the need for alternative resources during the sunniest parts of the day and year. As growth in DERs continues, these resources seek greater participation in the CAISO market by not only modifying load but also seeking to export their power – often in aggregate – to be compensated for that export. The CAISO tariff does allow aggregations of DERs to participate in its markets.<sup>4</sup> However, CAISO’s most recent deliverability assessment for distributed generation showed scant amounts of DER selected in LSE resource portfolios, and thus hardly any was studied.<sup>5</sup> The recently established Emergency Load Reduction Program at the CPUC creates a test case for some of these DER challenges, by compensating customer-sited generation for exported energy under emergency conditions.<sup>6</sup>

*Microgrids* – Generally, a microgrid is understood to be a self-contained, small (relative to the electric grid), electricity system with the ability to manage critical customer resources, disconnect from the electric grid when the need arises, and provide the customer with different levels of critical support. A microgrid can be as simple as a diesel-fuel generator located near a building, such as a hospital, that is able to provide needed power during an electric power outage. Or a microgrid can be an entire campus or community that is outfitted with solar and other technologies. Customers tend to seek reliability and resiliency services from microgrids. In particular, customers may value the desire for sufficient resources both at the utility scale, but also at the local level, in order to better manage challenges. Although each microgrid can vary in component configuration, size, and applications, generally, microgrids are made of a combination of distributed energy resources (DER), energy storage, and demand response capabilities. Microgrids are still a relatively nascent and expensive concept. Continued research and understanding of their operations and implications within the electricity landscape is warranted.

*SB 1339* – In 2018, the Legislature passed SB 1339 (Stern, Chapter 566, Statutes of 2018) which required the CPUC, in consultation with the CEC, and the CAISO, to take specified actions by December 1, 2020, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations. In response to SB 1339, the CPUC initiated Rulemaking 19-09-009. Since the start of the proceeding the CPUC has issued multiple decisions in various tracks, largely focused on resiliency benefits provided by the microgrids. The most recent decision

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<sup>2</sup> 2018 Total System Electric Generation, CEC, <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation/2018>

<sup>3</sup> 2021 SB 100 Report

<sup>4</sup> ISO Tariff updated for Distributed energy resource provider, <http://www.aiso.com/participate/Pages/DistributedEnergyResourceProvider/Default.aspx>

<sup>5</sup> CAISO, “2022-2023 DG Deliverability Assessment Results” *Resource Adequacy Deliverability for Distributed Generation*, February 17, 2023. <http://www.aiso.com/Documents/2022-2023-Deliverability-Distributed-Generation-Study-Results-Report.pdf>

<sup>6</sup> Customers with DERs that can generate energy (BTM solar+storage, EVs, cogeneration, etc) that have permission to export are eligible to participate. <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program#:~:text=What%20is%20the%20Emergency%20Load,periods%20of%20electrical%20grid%20emergencies>

established a Microgrid Incentive Program,<sup>7</sup> a program that targets placement of community microgrids in disadvantaged vulnerable communities to support populations impacted by grid outages. A multi-property microgrid tariff is the subject of the subsequent, ongoing track of the proceeding. Aside from the microgrid proceeding, the CPUC has active proceedings that are relevant to the deployment of microgrids, including a specific proceeding on DERs (R. 21-06-017, and its predecessor, R. 14-08-013).

#### COMMENTS:

- 1) *Author's Statement.* According to the author, "Distributed energy resources (DERs) are an important component of California's energy infrastructure and climate goals. As DERs increasingly proliferate throughout the state, it is important for the public to know about the quantity of new projects, their size, and scope. That is why Assembly Bill 3111 requires applicants for new, large customer-sited DER projects to notify the California Energy Commission of the installation and characteristics of these facilities. This bill will increase transparency, effective resource planning, and worker safety."
- 2) *Operating in the Dark.* As noted above, DERs – especially rooftop solar – play a significant role in shaping the energy profile of California's grid. However, as these resources are on the customer-side of the meter, the state agencies, CAISO, and even the utilities often have little information regarding their location, profile, and desire or ability to shape the load or isolate during emergencies. Visibility into the behavior of DERs interconnecting to California's grid could significantly alter how the energy agencies and CAISO value the attributes – either electricity or capacity – of these resources. To date, that visibility has been lacking. The sponsors of this measure note the growth in DER, and emphasize state agencies need to be aware of the amount and location of these resources as they impact short- and long-term system planning. This measure seeks to provide this needed visibility into DERs by requiring type, location, capacity, and contract information of these DERs to be shared with the CEC. The bill limits the DERs to only large systems – >100kW for solar or > 80kWh for batteries – seemingly focused on large industrial customers that could afford to install such systems on their parking lots, warehouses, or other open spaces.
- 3) *Data Privacy Concerns* While this bill seems intended for the larger systems called out in its definition of DER, the bill does also address aggregated DERs, which could range from virtual power plants to demand reduction technologies, and comprise smaller DER systems that are strung together to make a larger, aggregated DER. It is these aggregated DERs that might involve residential systems interacting as a single unit. This bill requires the notices of type, location, capacity, and contract information of these DERs to be publicly accessible within five days of the CEC receiving them. The sponsors have stated the desire is to ensure the state energy entities and utilities have access to this information, to promote transparency and visibility of these systems. However, state entities have the ability to share data with each other and the regulated utilities without needing to publicly post such information. Moreover, the data being noticed could be comprised of various residential systems aggregated together.

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<sup>7</sup> D. 23-04-034; CPUC; *Decision Adopting Implementation Rules for the Microgrid Incentive Program*; R. 19-09-009; April 14, 2023.

This broad notice requirement seemingly allows any concerned citizen with an internet connection access to these data, and may have unintended consequences in terms of consumer privacy. It seems unnecessary for a neighbor, real estate developer, or even a technician to know whether the house around the corner has a DER, and the capacity of that DER. This seems rife for potential misuse. The sponsors of this measure scoff at this concern, noting that permits for rooftop solar installation are public documents and anyone can see if a solar panel is on a rooftop just by walking the neighborhood. However, it is quite different to have information about a personal DER available at a local permitting office that may be viewed upon request versus one that is in a searchable format, readily available online for data compilers to glean.

Regardless, the author emphasizes it is not the intent of the bill to create such unintended consequences. Rather, the target is large DERs and large aggregated DERs – such as microgrids and virtual power plants – that large businesses might employ without providing clear visibility to their utility or the state. *Given this intent, the committee recommends amending this bill to specify that data sharing of these notices may readily occur between the CEC and the CPUC, CAISO, IOUs, or POUs, but that the public disclosure of these notices is limited to large businesses. The committee additionally recommends basic privacy protections around these data, including compliance with the Information Practices Act of 1977 and the California Public Records Act.*

- 4) *Attestation without “Compensation.”* As part of the notice requirement in this bill, applicants or aggregators are required to attest, under penalty of perjury, that any corporation or person owning, controlling, operating, or managing any electric plant, as defined in Section 217 of the Public Utilities Code, is an electrical corporation, as defined in Section 218 of the Public Utilities Code. This attestation is a strange construction, where the applicant or aggregator is not required to attest that *they are operating* as an electrical corporation, per these statutes, but that these statutes exist and that – as written in this bill – it is an accurate definition of “electrical corporation.”

Yet, this definitional test is erroneous. Statute does not direct that any corporation or person owning an electric plant is an electrical corporation. The statutory definition of electric plant is very broad, where any personal property owned to facilitate the furnishing of electricity for light, heat, or power qualifies. In other words, a light bulb or your home’s HVAC may be considered an electric plant. The operative phrase that prevents such a broad inclusion from defining most aspects of society as electrical corporations, is that “electrical corporations” are those corporations or persons running electrical plants *for compensation*. The attestation in this measure leaves out this requirement that electrical corporations run electrical plants for compensation, seemingly casting an enormous net over most electrical devices, and rendering anyone that signs the attestation as falsely interpreting statute.

Regardless of this omission, the purpose and effect of this attestation are unclear. The opponents of this measure cite the attestation as effectively rendering all DERs that sign it as “electrical corporations,” a long-standing point of division colloquially known as the “over-the-fence” rule. Current statute limits the ability of a corporation or person to serve multiple customers (greater than two on adjacent properties) by an entity that is not the electric utility. Public Utilities Code § 218 ensures regulatory oversight of a private entity providing electric service for compensation, that is not otherwise a corporation or person

employing cogeneration, landfill gas technology, or digester or gas technology to provide electricity on-site or to not more than two tenants. The implications for defining an electrical corporation are to ensure adequate regulatory oversight, including the bedrock principles of safe, reliable, and affordable service. The CPUC has regulatory oversight of electrical corporations in order to ensure electric rates charged to customers are just and reasonable, with additional consumer protections to ensure safe and reliable service. The CPUC maintains broad authority over the entities it regulates, including the ability to review their books, fine and penalize the entity, and to revoke its license to operate/ However, microgrid developers and communities see these legal limitations as a hurdle to deploying greater use of microgrids across multiple customers – in part to reduce the costs of the microgrid on a per customers basis. Whether the attestation could hold these DER providers legally liable for not operating as an electrical corporation is currently unknown to this committee. Again, the attestation is not written in a manner where the applicant or aggregator must attest that *they are operating* as an electrical corporation. However, as noted by the opposition, this may be a distinction without a difference. The consequence of including the attestation in such notices seems less about disclosure to agencies, and more about establishing litigation opportunities. The author has indicated that is not the desire of this bill. *As such, the committee recommends striking the attestation requirements for both applicants and aggregators.*

5) *Related Legislation.*

AB 2891 (Friedman) requires by December 1, 2026, the CEC, in consultation with specified entities, to adopt technical requirements and load modification protocols to provide the option for load-serving entities (LSEs) to reduce or modify their electrical demand forecast submitted to the CEC as part of the integrated energy policy report (IEPR). Status: *pending hearing* in the Assembly Committee on Appropriations after passage in this committee on April 17<sup>th</sup>, 2024, on a 16-0 vote.

AB 3107 (Connolly) requires the CEC to conduct a study on the benefits of microgrids for local governments and communities, and submit a report on the study to the Legislature by January 1, 2027. Status: *set for hearing on April 24<sup>th</sup>* in this committee.

SB 1018 (Becker) excludes from the statutory definition of an “electrical corporation” those employing solar or wind resources if the generated electricity is used to either run electrolyzers for hydrogen production or to provide industrial process heat. Status: *pending hearing* in the Senate Committee on Appropriations following passage in the Senate Committee on Energy, Utilities, and Communications on a 14-3-1 vote.

6) *Prior Legislation.*

SB 1215 (Stern, 2020) proposed changes to existing law in order to promote the use of microgrids, as defined, for electric generation. Specifically, required: the CPUC to create a database of critical facilities and infrastructure and required the CPUC and the California Independent System Operator (CAISO) to develop a methodology to account for the resource adequacy value of distributed storage by March 31, 2021. Status: *Died* – Assembly Committee on Utilities and Energy.

SB 774 (Stern, 2019) required specified actions related to the deployment of microgrids, including requiring exclusive utility-ownership, and, as such, ratepayer funding, of

microgrids that are located in the electrical corporation's side of the electrical distribution grid. Status: *Died* – Assembly Committee on Utilities and Energy.

SB 1339 (Stern) requires the CPUC, in consultation with the CEC, and the CAISO, to take specified actions by December 1, 2020, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations. Requires the governing board of an electric POU to develop and make available a standardized process for the interconnection of a customer-supported microgrid, including separate electrical rates and tariffs, as necessary. Status: Chapter 566, Statutes of 2018.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

California State Association of Electrical Workers  
 Center for Sustainable Energy  
 Coalition of California Utility Employees  
 San Diego Gas and Electric Company  
 State Building & Construction Trades Council of California

### **Oppose**

198 Methods  
 350 Bay Area  
 350 Bay Area Action  
 350 Conejo  
 350 Humboldt  
 350 Sacramento  
 350 South Bay LA  
 350 Southland Legislative Alliance  
 350 Ventura County Climate Hub  
 A1 Sun, INC.  
 Acip Energy  
 ACR Solar  
 Acterra: Action for A Healthy Planet  
 Affordable Development 2002  
 Affordable Development 2002 LLC  
 Affordable Development 3612 LLC  
 Affordable Development 3745 LLC  
 Affordable Development 380 LLC  
 Affordable Development 5616 LLC  
 Affordable Development 818 LLC  
 Affordable Development 820 LLC  
 Aguillon Enterprises LLC  
 Alaska Microgrid Group  
 Albany Climate Action Coalition  
 Albany Unified School District  
 Amy's Roofing and Solar  
 Ana Vasudeo, Berkeley School Board Director

Andrew Lewis, Councilmember, North Westwood Nc  
Ann Harvey, Individual  
Anthony Laurita, Government Affairs Manager, Sma America  
Anthony Wexler, Distinguished Professor and Director, UC Davis  
Aztec Solar INC.  
Ballona Institute  
Ban Sup (single Use Plastic)  
Bay Area Clean Air Coalition  
Bay Area Community Services  
Berkeley Electrification Working Group  
Berkeley Unified School District  
Bernard Venter, Senior Account Manager, Bpi  
Bill Woodbridge  
Brooke Conner, President, Solcha  
Caitlin Quinn, Board President, Petaluma City Schools  
Calaveras County Water District  
California Alliance for Community Energy  
California Climate Voters  
California Energy Storage Alliance  
California Interfaith Power and Light  
California Solar & Storage Association  
Californians for Energy Choice  
Californians for Western Wilderness  
Center for Biological Diversity  
Center for Community Energy  
Chance Cutrano, Councilmember, Town of Fairfax  
Chino Valley Democratic Club  
Citadel Roofing and Solar  
City of El Cerrito  
City of El Cerrito, Mayor Pro Tem Gabriel Quinto  
City of San Mateo  
Civicwell  
Clara Mckenzie, California Resident  
Clean Coaliton  
Clean Earth 4 Kids  
Cleaneearth4kids.org  
Climate Action California  
Climate Action Mendocino  
Climate Hawks Vote  
Climate Reality Project San Diego  
Climate Solutions Advocacy Institute  
Coastal Lands Action Network (CLAN)  
Collective Resilience  
Consumer Watchdog  
Contra Costa Moveon  
Councilmember Ben Bartlett, Berkeley  
Councilmember Daniel Goldstein, City of Hayward  
Councilmember Dennis Pocekay, Petaluma  
Courageous Resistance of The Desert



Courtney Welch, Mayor, City of Emeryville  
Custom Power Solar  
David Sonneborn, Emeritus Professor  
Defend Ballona Wetlands  
Democrats of Sw Riverside County  
Dency Nelson, Rooftop Solar Owner & Advocate Since 1999  
Domo Modular LLC  
Ecology Center  
Eden Health District  
Emily Brandt  
Energy Coalition  
Energy Toolbase  
Engie North America  
Environmental Justice Coalition for Water  
Equity Transit Association  
Extinction Rebellion Sf Bay  
Feminists in Action (formerly Indivisible CA 34 Womens)  
Forourchildren.love  
Fresnans Against Fracking  
Fridays for Future  
Glendale Environmental Coalition  
Green Solutions & Technologies  
Greg Page, Energy Management Specialist Temecula Valley Usd  
Grid Alternatives  
Habitable Designs  
Hammond Climate Solutions  
Hang Out Do Good  
Harris & Kaen INC  
Harvey Rarback, Vice Mayor Half Moon Bay  
Homefed Corporation  
Humboldt Coalition for Clean Energy  
Immobilier Funds  
Indivisible Alta Pasadena  
Indivisible California Green Team  
Indivisible East Bay  
Indivisible Marin  
Indivisible Media City Burbank  
Indivisible Resistance San Diego  
Indivisible Sacramento  
Indivisible San Jose  
Indivisible San Pedro  
Indivisible Santa Barbara  
Indivisible Santa Cruz County  
Indivisible Sf  
Indivisible Sonoma County  
Indivisible South Bay LA  
Indivisible Ventura  
Indivisible West Side LA  
Indivisible Yolo

Ismael Armendariz, President, Oakland Education Association  
Ivy Energy  
James Coleman, Mayor, City of South San Francisco  
James Schoonover, Climate Crisis Liaison, Grassroots Institute  
Jenna Blaustein, Gcfp, Rnp  
Jiyoung Carolyn Park, Individual  
Joe Houde, Ec Institute  
Keith Umemoto  
Kire Builders INC  
Koreen Cea, Cadem (ad 52 ) Elected Delegate  
Lauri Kemper, Registered Civil Engineer  
Leslie Gollub  
Local Clean Energy Alliance  
Long Beach Alliance for Clean Energy  
Long Beach Environmental Alliance  
Long Beach Gray Panthers  
M. Lee Brokaw, General Contractor INC  
Macia Edelen  
Margaret Okuzumi, California Democratic Party Executive Board Member  
Mary Ann Lutz, Board Trustee, Citrus College  
Megan Shumway, Chn, Sacramento Climate Coalition, Sacact  
Microgrid Resources Coalition  
Mountain View Council Member Alison Hicks  
Mutual Housing California  
Nadine Peyrucain, Elected Democratic Party Delegate, Contra Costa County, District 5  
Napa Climate Now!  
Nicky Gonzales Yuen, Trustee, Peralta Community College Board  
Norma Alcalá, President, California Democratic Council  
Nv5  
Ofi 2275 LLC  
Ofi 2290 LLC  
PAT Showalter, Mayor, City of Mountain View  
Pathion Holdings, INC.  
Pearlx Infrastructure, LLC  
Peninsula Clean Energy  
People Power Solar Cooperative  
Pepe Barr  
Phill Carter, Founder, Environment.wiki  
Powerflex  
Progressive Democrats of America, California  
Progressive Democrats of Santa Monica Mountains  
Quitcarbon  
Reclaim Our Power Utility Justice Campaign  
Recolte Energy  
Regenerative Forest Solutions  
Regina Chagolla, School Board Trustee Emery Unified  
Resilient Palisades  
Rhoades Planning Group  
Richard Mccann, Partner, M. Cubed

Roger Delano, Individual  
Rooted in Resistance  
Sam Davis, Board Trustee, Oakland Unified School District, Individual  
San Francisco Bay Area Physicians for Social Responsibility  
San Francisco League of Conservation Voters  
San Joaquin Valley Democratic Club  
San Jose Community Energy Advocates  
San Luis Obispo Mothers for Peace  
Santa Clara County Democratic Party  
Santa Cruz Climate Action Network  
Schneider Electric  
School Energy Coalition  
Scott Sakakihara, City Council, Union City  
Sd Affordable Development LLC  
Sequoia Forestkeeper  
Silicon Valley Youth Climate Action  
Social 350  
Solar Technologies  
Solar Works  
Sonoma County Democratic Party  
Stacy Fortner, Officer Environmental Caucus, Cadem  
Stand Strong LA Indivisible  
Stand.earth  
Stellar Solar  
Steven Brown  
Sukhdeep Kaur, Councilmember for City of Emeryville  
Sun Light & Power  
Sunflower Alliance  
Sunnova Energy Corporation  
Susan St Louis, Indivisible  
Sustainable Marin  
Sustainable Systems Research Foundation  
Symbium  
T L Rosenberg, Community Energy Advocate  
Tenants Together  
Terraverde Energy  
The Climate Alliance of Santa Cruz County  
The Climate Center  
The Resistance Northridge-indivisible  
Thinus Venter, Business Director At Gogetit  
Tony Pastore, Energy Consultant  
Tww/indivisible - Los Gatos  
Undauntedk12  
Valarie Bachelor, Ousd School Board Director, District 6  
Valerie Arkin, City Council Member, City of Pleasanton  
Valley Women's Club of San Lorenzo Valley  
Valta Energy LLC  
Vanessa Danielle Marrero, Berkeley Rent Board Commissioner  
Ventura Energy Partners LLC

Vincent Casalaina  
Vote Solar  
Wellstone Democratic Renewal Club  
West County Wastewater  
Wildflower Revolution  
Winston Oak LTD  
Womeen's Energy Matters  
World Business Academy  
Yoana Tchoukleva, Legislation Co-chair, Alameda County Democratic Party  
Your Solarmate

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