# Has SMUD Sunk Too Deep?

How unusually high fixed costs and stranded assets have led the Sacramento Municipal Utility District to discourage customers from choosing rooftop solar

September 2022

SOLAR RIGHTS ALLIANCE

Has SMUD Sunk Too Deep © 2022 by Solar Rights Alliance is licensed under Attribution-NonCommercial-ShareAlike 4.0 International

## Executive Summary

The Sacramento Municipal Utility District (SMUD) is the electric utility for most of Sacramento County and small portions of Placer County and Yolo County in northern California, serving 1.5 million residents.[1] SMUD is the fifth largest utility in California and the sixth largest municipal utility in the US.[2]

For decades SMUD has been seen as a national leader on clean energy, innovative rate design, and customer-centric programs. However, in recent years, SMUD has taken a hard turn in the opposite direction, especially in regard to rooftop solar energy. In 2021, SMUD slashed its net energy metering program. Because SMUD's decision only went into effect in March 2022, it is too early to measure the exact impact on the local rooftop solar market (footnote 23 includes a methodology that SMUD observers can use to measure the impact over time). However, past experience elsewhere in California and across the country strongly suggest that the Sacramento solar market will significantly contract. This report seeks to understand what drove SMUD to curtail its historical support for rooftop solar.

Findings of the report include:

**1) SMUD's fixed costs are the highest among all public utilities in California**

- This report analyzed 29 major California municipal electric utilities and found that SMUD has significantly higher fixed costs than any of them.
- In 2022, SMUD's fixed costs amounted to 75 percent of its annual operating expenses. This means that for every dollar on a customer's electric bill, SMUD used only twenty-five cents to purchase power or fuel.
- By comparison, fixed costs amount to 61 percent at the Los Angeles Department of Water and Power, 53 percent at Roseville Electric, and 47 percent at Alameda Municipal Power.

**2) Primary drivers of SMUD's unusually high fixed costs include stranded energy investments, excessive salaries, public relations and vanity projects**

*Stranded energy investments*

- This includes SMUD's fleet of fossil fuel-fired power plants, which it has announced plans to shut down by 2030 or convert to alternate fuels at additional expense.
- SMUD lost $52.1 million on an investment it abandoned in 2019 on the Rosa Unit Natural Gas extraction facility in New Mexico.
- SMUD owns or leases interests in natural gas pipelines and storage facilities. SMUD's pipeline expenses come to $12 million per year in depreciation, interest, and operations.

*Excessive CEO salary, public relations and vanity projects*

- SMUD has much higher than typical expenditures on CEO pay, public relations and what could be argued as being vanity projects. While these are a much smaller driver of SMUD's high fixed costs, they suggest issues with SMUD's organizational culture that perpetuate, rather than mitigate, SMUD's fixed cost problem.
- SMUD has significantly higher CEO pay than other public utilities in California. At $705,120 in total compensation for its CEO and general manager in 2019, SMUD paid more than the Los Angeles Department of Power and Water paid its top leadership or any other municipal utility tracked by Transparent California. SMUD's general manager salary is also considerably higher than the top manager for the City of Sacramento, Sacramento County, Sacramento Regional Transit, and the City of Sacramento's Director of Utilities.
- SMUD spends $28 million per year, or $43 per customer, on marketing, corporate branding, and community relations. The Los Angeles Department of Water and Power spends just $6.7 million for comparable expenses.
- SMUD often spends money on items unrelated to SMUD's mission, such as:
    - $6 million in grants to nonprofit organizations, a function typically reserved for private philanthropic foundations, not a public electric utility.
    - $9.25 million to renovate and purchase naming rights for the Museum of Science and Curiosity, a function typically reserved for a private credit union, bank, hospital chain or beverage company.
- SMUD spent $83 million on an arguably extravagant remodel of its headquarters building ($11 million for demolition and $72 million for construction).

**3) SMUD's resistance to distributed energy is short-sighted**

- We believe that these are the factors that drove SMUD's 2021 decision to slash its rooftop solar net metering program, which will discourage conversion of existing homes to solar electricity.
- Most municipal utilities simply distribute power they purchase from outside providers. By choosing to self-generate a significant amount of its own power, SMUD has locked itself into a power portfolio that makes it more difficult to transition to a distributed energy grid, where SMUD customers generate their own power through rooftop solar and other distributed resources.
- SMUD's bond underwriting documents specifically cite rooftop solar as a "competitive challenge" for SMUD along with distributed electric storage resources such as solar-powered batteries.
- SMUD's move to discourage rooftop solar will exacerbate rather than ameliorate SMUD's fixed cost problem. State and local policy calls for a complete switch to renewable energy over the next decade at the same time residents will be pushed

towards electric cars and appliances. With less rooftop solar and batteries to soak up much of the projected increase in electricity load, SMUD will be forced to rely on large-scale infrastructure that will further drive up the utility's fixed costs and put increasing strain on its distribution grid, customer costs, and land use in California.

This report makes no conclusion about whether SMUD should or should not have made its past investments in its fossil fuel infrastructure and other fixed costs. Those decisions cannot be undone.

What matters is for SMUD to acknowledge that its financial situation was created by an organizational culture that fosters abnormally high fixed costs, CEO compensation, and excessive and unusual public relations expenditures. SMUD should then develop and implement a plan to lower those fixed costs in the future, including a focus on empowering customers to generate and share an increasing amount of the region's electricity load. These steps will help SMUD manage a less expensive and more customer-friendly grid of the future.

## High Fixed Costs

Every utility has a set of fixed costs (staffing, transmission and distribution systems, energy production facilities, etc) that do not change regardless of how much electricity is used by its customers. The remaining costs are for fuel to run its power plants and energy purchased on the open market. This report analyzed the budgets of 29 municipal electric utilities in the state of California with publicly available budgets containing sufficient line-item detail for analysis.[3]

*Table 1: Fixed costs as a portion of total expenses for California municipal utilities*

| Utility | Total Expenses ($) | Fixed Costs ($) | Fixed Costs (%) |
|---|---|---|---|
| SMUD | 1,735,911,178 | 1,295,230,587 | 75% |
| LADWP | 3,690,900,000 | 2,190,100,000 | 59% |
| Alameda Power | 61,468,000 | 31,172,000 | 51% |
| Anaheim Public Utilities | 377,243,000 | 126,308,000 | 33% |
| Azusa Light and Water | 41,901,624 | 17,329,886 | 41% |
| Burbank Power and Water | 239,145,000 | 66,878,000 | 28% |
| City of Industry | 5,214,400 | 1,598,500 | 31% |
| City of Colton | 69,495,977 | 38,668,772 | 56% |
| Glendale Water and Power | 288,430,624 | 149,454,624 | 52% |
| Gridley Utilities | 7,509,322 | 2,506,347 | 33% |
| Healdsburg Electric and Water | 14,851,322 | 6,664,252 | 45% |
| Imperial Irrigation District | 669,640,000 | 358,528,600 | 54% |
| Lassen Municipal Utility District | 21,860,490 | 9,426,590 | 43% |
| Lompoc Electric Utility | 27,952,442 | 15,601,938 | 56% |
| Merced Irrigation District | 45,118,000 | 9,744,000 | 22% |
| Modesto Irrigation District | 291,843,518 | 71,734,102 | 25% |
| Moreno Valley Electric Utilities | 37,867,825 | 23,191,138 | 61% |
| City of Needles Utilities | 5,813,384 | 3,635,654 | 63% |
| Palo Alto Utilities | 211,665,093 | 109,921,545 | 52% |
| Pasadena Power and Water | 224,442,647 | 161,328,153 | 72% |
| Pittsburg Power Company-Island Energy | 8,236,031 | 4,500,588 | 55% |
| Redding Electric Utility | 119,600,000 | 47,000,000 | 39% |
| Roseville Electric | 134,516,505 | 69,731,662 | 52% |
| City of Shasta Lake | 21,611,393 | 4,636,281 | 21% |
| Silicon Valley Power (City of Santa Clara) | 549,937,714 | 161,523,209 | 29% |
| Trinity Public Utilities District | 14,947,909 | 9,774,307 | 65% |
| Truckee Donner PUD | 29,242,461 | 15,260,461 | 52% |
| Turlock Irrigation District | 319,806,000 | 81,806,000 | 26% |
| Ukiah Electric Utility | 21,187,592 | 13,826,608 | 65% |

SMUD's fixed costs amount to 75 percent of its total expenses, meaning that only 25 cents out of every customer dollar goes to purchase fuel or electricity. By comparison, 41 cents of every dollar spent on the Los Angeles Department of Water and Power's electrical service went toward energy purchase. Roseville and Alameda allocated an even higher percentage of customer bills toward actual energy generation, at 48 percent and 49 percent, respectively.[4] (See Table 1.) SMUD is an outlier in spending such a high proportion of overall expenses on fixed costs.

## Fossilized Investments

SMUD's fixed costs include investments in hydropower, wind, and utility-scale solar generation. These power sources produce electricity at very low marginal cost after the initial sunk cost investment. However, a significant part of SMUD's fixed costs include extensive past investments in fossil fuel infrastructure. Contrary to the rhetoric and goals of its 2030 zero carbon plan, SMUD will burn more fossil fuels in 2022 than it did in 2021. Unlike Alameda Power, which already uses 100% carbon-free power that it purchases on the open market, SMUD has invested heavily in a fleet of methane-burning power plants and the infrastructure to fuel them. SMUD received bond financing through Wall Street to build these plants, which are owned by a SMUD subsidiary called the Joint Power Agency (JPA). In order to protect bondholders against bankruptcy of the JPA, the bond issuances include "take or pay" power purchase agreements that obligate SMUD to pay bondholders for the equivalent of the fossil fuel-generated electricity from these plants for as long as the duration of the bonds, even if SMUD were to shut down the plant.

SMUD's 2021 Series I Bond issue indicated that the debt on the Cosumnes Power Plant, located on the grounds of the defunct Rancho Seco nuclear plant, will be paid off in 2030, a likely explanation for why SMUD will postpone either closing the plant or converting it to non-fossil fuel sources until 2030. In September 2019, SMUD restructured its bond debt on its Carson and Procter & Gamble gas cogeneration plants to eliminate the previous "take or pay" obligations and enable the shutdown of these plants whenever SMUD chooses. However, SMUD remains liable for payments on the $191 million of new bonds issued in 2019, part of which were used to refinance improvements and additions to its power generation system. SMUD's "take or pay" agreement to purchase power from the Campbell Soup cogeneration gas plant originally extended until December 2027,[5] but as of 2021 SMUD is "exploring retiring" the plant in 2025.[6]

SMUD's sunk costs on fossil fuels extend beyond its power plants. In 2019, SMUD abandoned partial ownership in the Rosa Unit Natural Gas mining operation in New Mexico at a loss of $52.1 million.[7] SMUD owns or leases interests in natural gas pipelines and storage facilities as

well. SMUD's pipeline expenses come to $12 million per year in depreciation, interest, and operations.[8]

Overall, SMUD has $2.2 billion in outstanding bonds and pays $212 million per year to service all of its debt, including its sunk infrastructure costs.[9] SMUD must make these payments no matter how much Sacramento residents conserve or self-generate electricity.

## Excessive CEO Salary

In 2019, the latest year for which data is available on the Transparent California website, SMUD provided $705,120 in total compensation to its general manager. This is considerably higher than other public utilities, even the Los Angeles Department of Water and Power, which provides two utility services to 1.5 million people.

*Table 2: SMUD CEO compensation vs other comparable utilities by size and geography*

| | SMUD | LADWP | Roseville Electric | Alameda Power |
|---|---|---|---|---|
| Customers | 643,740 | 1,515,541 | 60,752 | 36,067 |
| Employees | 2452 | 12,253 | 153 | 86 |
| Budget | $1,735,911,000 | $7,845,500,000 | $133,442,252 | $60,324,000 |
| CEO pay | $705,120 | $518,326 | $436,917 | $255,790 |

SMUD pays its CEO more than ten times the median household income of $65,847 for Sacramento.[10] One would expect SMUD's CEO to make more than the CEOs of Roseville and Alameda, which have smaller budgets and staffing levels, but it's difficult to justify such a significant disparity. Moreover, SMUD's CEO total compensation is significantly higher than the East Bay Municipal Utility District (a large water utility with similar staffing levels) as well as the city manager for Sacramento, the County Executive for Sacramento County, and the general managers for Sacramento Regional Transit or Sacramento City Utilities, despite smaller or comparable figures for customers, employees, and budget in some instances.[11]

*Table 3: SMUD CEO compensation vs that of other area public agencies*

| | SMUD | East BAY MUD | Sacramento RT | Sacramento City | Sacramento County | Sac City Utilities |
|---|---|---|---|---|---|---|
| Customers | 643,740 | 1,400,000 | 2,532,700 | 503,482 | 1,538,000 | 490,000 |
| Employees | 2,452 | 2,155 | 1,450 | 4,993 | 12,562 | 572 |
| Budget (in billions) | $1.74 | $1.11 | $0.214 | $1.40 | $6.41 | $0.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CEO pay | $705,120 | $413,172 | $467,808 | $497,606 | $450,321 | $266,623 |

SMUD touts itself as a “community-owned nonprofit” organization, but in reality it is a government entity like every other public utility in California. The data suggest that SMUD has come to view itself as a business that happens to be owned by its customers (like REI or other co-ops, for example) and is setting executive compensation according to private industry standards as opposed to typical public service standards.

## Unusual Expenses and Costly Public Relations

Most utilities have small public outreach programs to promote energy or water conservation, or other rebate programs. But most municipal utilities in California don’t feel the need to promote their “brand”, given that they are monopolies that do not need to compete for market share. SMUD, however, is budgeted to spend $28 million, or $43 per customer, in 2022 on communications, marketing, and community relations.[12] For comparison, the Los Angeles Department of Water and Power, which provides two services to more than twice as many residents as SMUD, has an annual budget of just $6.7 million for sponsorships and ads.

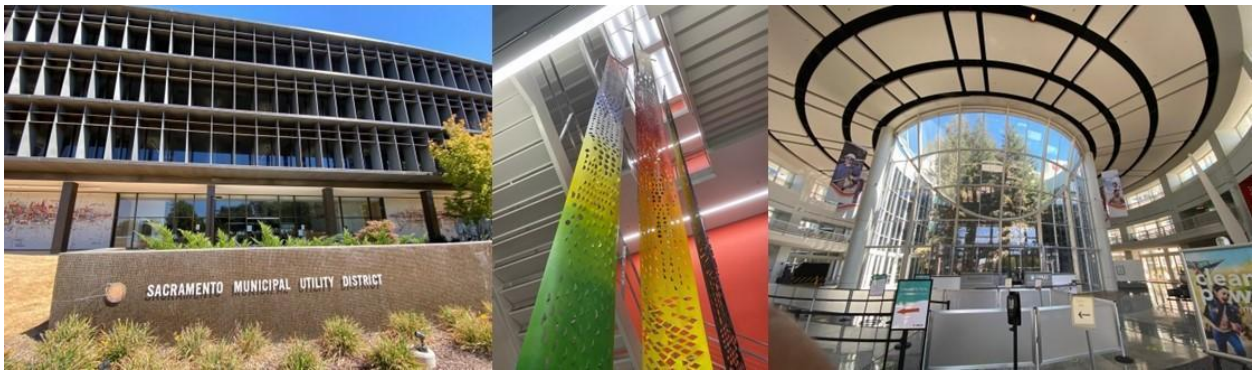
On top of these marketing, brand, and corporate communication expenses, SMUD will spend $5.8 million on legislative and regulatory lobbying and $6 million on “Sustainable Community Strategies” to purchase goodwill through grants to local community organizations.[13] Nonprofit grantmaking should be left to private charitable foundations, not a ratepayer-owned electric utility. Moreover, we've seen how private utilities use grantmaking to advance their political agenda.[14] It is unseemly for a government agency to engage in similar tactics.

Another unusual expenditure was to grant $2.25 million in general sponsorship to the Museum of Science and Curiosity and another $7 million to purchase the naming rights of the museum.[15] We are hard pressed to find another example of a government agency purchasing naming rights to a stadium, museum, or other venue – an expense more typical of a private credit union, bank, hospital chain, or beverage company.

While past SMUD advertisements promoted various conservation steps customers could take, SMUD’s current marketing appears to be also aimed at building SMUD’s overall image or brand, such as the prominent billboards posted in the Sacramento Airport.

Similarly, while most people would enjoy free tickets to the California State Fair, it is difficult to see how SMUD ratepayers benefit from SMUD hiring a social media staff person to build SMUD’s online presence through promotions such as the following:


Perhaps SMUD's most unusually excessive expense was $83 million, financed through bonds, to renovate its corporate headquarters, including a restoration of a mural by artist Wayne Thiebaud and new suspended fabric artwork by Gioia Fonda in a staircase located on SMUD's campus that few members of the public will ever see.[16] SMUD's customer service center includes a giant glass atrium to accept in-person payments, which few customers utilize in this day of electronic payments.



## Resistance to Distributed Energy

By its nature, a distributed energy grid relies less upon utility generated power and more on thousands of small power sources providing electricity to their own homes and businesses as well as neighboring customers. Shifting away from monopoly power production to distributed energy resources such as rooftop solar and battery storage can avoid new infrastructure costs, improve grid resilience, integrate clean energy sources, and help meet the growing demand for electricity.[17] A 2021 study found that accelerating the deployment of distributed solar and batteries in California would result in cost savings, increased jobs, more manageable installation rates and a more reliable and robust electricity system.[18]

California is in the middle of an unprecedented, ambitious and difficult push to completely decarbonize its economy over the next decade. This will require sharp increases in the deployment of all forms of renewable energy (both large-scale and customer-owned), along with similarly sharp increases in electricity use from electric vehicles, electric heat pump HVAC and water heater systems, and other household appliances such as clothes dryers and stovetops. Both the California Energy Commission and the Air Resources Board estimate that the state will need to triple all forms of wind and solar energy (including rooftop) in order to meet California's ambitious decarbonization goals.[21] By one estimate, electricity consumption would increase statewide by 68 percent under California's climate plan.[19] Another estimate says that California energy consumption will double from 1990 levels by 2035.[20]

SMUD's 2019 Integrated Resource Plan (IRP) called for increasing peak load only from 3,204 megawatts in 2022 to 3,447 megawatts in 2030, a modest increase of 8 percent. That projection leaves SMUD vulnerable to increased demand as Sacramento consumers and businesses electrify their vehicles and buildings. SMUD's 2019 IRP called for a similar modest increase in distributed energy from 292 megawatts in 2022 to 538 megawatts in 2030, just 16 percent of its peak load.[22]

As of 2021, SMUD had half the proportion of rooftop solar deployment of other California utilities. In 2021, SMUD took steps to further discourage rooftop solar with a new installation fee and a 44 percent reduction in compensation for sending power back to the grid.[23] SMUD limits the size of a rooftop solar installation to prevent it from generating more electricity than the household uses each year, reducing the capacity of rooftop solar to power entire neighborhoods. Instead, SMUD is relying upon utility-scale solar installations, such as the proposed 200 megawatt Coyote Creek installation, which will also have a negative impact on open space, carbon sequestration, and wildlife.

Both because SMUD has invested such a high amount in bond financed infrastructure to generate its own power and because SMUD dramatically underestimates the coming increase in demand due to building and vehicle electrification, SMUD mistakenly views distributed energy

providers such as rooftop solar homeowners as competitors rather than as allies that will help it meet electricity demand with the lowest costs and without further Wall Street debt.

## A "Competitive Challenge" or a Path to a Cheaper, Cleaner Electricity System?

SMUD's investments in fossil fuel infrastructure and excessive compensation and public relations spending represent costs that the utility now seeks to recoup from customers without first examining how SMUD got into this situation to begin with – and how to get out of it.

In fact, SMUD's bond underwriting documents specifically cite rooftop solar as a "competitive challenge" for SMUD along with distributed electric storage resources (homeowner batteries) and customer fuel cells.[25]

Guided by this mentality, SMUD has chosen to mitigate their fixed costs problem through higher fixed charges on all customers [24] while discouraging customers who wish to make and share electricity through rooftop solar.

SMUD's antagonistic current approach to customer self-generation is short-sighted. Encouraging customers to make and share their own locally made energy is a critical way in which SMUD can reduce its fixed costs while ensuring that the grid is more resilient during disasters and extreme weather events.

It is ironic that SMUD, which battled PG&E for decades to win the ability to generate its own power and become independent from that private monopoly, now is battling Sacramento homeowners who likewise wish to generate their own power and become less dependent upon SMUD.

## Conclusion

This report makes no conclusion about whether SMUD should or should not have made its past investments in its fossil fuel infrastructure and other fixed costs. Those decisions cannot be undone.

What matters is for SMUD to acknowledge that its financial situation was created with abnormally high sunk costs, CEO compensation, and excessive and unusual public relations expenditures. SMUD should develop and implement a plan to lower those fixed costs in the future, including a focus on empowering customers to generate and share an increasing amount of the region's electricity load.

Instead of a forward-facing approach, SMUD has instead worked to saddle rooftop solar homeowners with its own excessive fixed costs, while continuing to add to those costs with little or no restraint.

This report suggests a better path for SMUD, one that we encourage policymakers and the public to strongly consider in the name of a healthier and more resilient Sacramento.

## Endnotes

Cover photo of Rancho Seco Power Plant by Griffish5 at English Wikipedia, used under Creative Commons license BY-SA 3.0

1. https://www.smud.org/en/Corporate/About-us/Company-Information

2. https://www.smud.org/en/Corporate/About-us/News-and-Media/2021/2021/SMUD-recognized-as-a-reliable-public-power-provider

3. The utilities studied in this report are members of the California Municipal Utilities Association. Every utility was analyzed, but several were excluded either because data was unavailable or insufficient (either because fixed overhead costs were commingled between both water and electric services, or budget line items didn't sufficiently differentiate fixed costs from power purchase and fuel costs) or because the nature of the utility was an outlier in comparison to other municipal utilities in the state. See detailed sources for budget information used in this report, and additional notes on methodology.

4. SMUD Fixed costs from SMUD Board Budget Resolution submitted November 5, 2021, page 21. https://www.smud.org/-/media/Documents/Corporate/About-Us/Board-Meetings-and-Agendas/2021/Nov/SMUD-2022-Proposed-Budget-Book_Detailed.ashx

5. SMUDs Series 2015 Cosumnes Project Revenue Refunding Bond issuance page A-19. https://www.munios.com/munios-notice.aspx?e=AK7XA

6. SMUD's Electric Revenue Refunding Bonds, 2021, Series I, page A-30.

7. SMUD's Electric Revenue Refunding Bonds, 2021, Series I, page A-48.

8. SMUD Financing Authority 2022 proposed budget, pages 12, 32, 55, 74 showing $1,411,000 in fixed gas pipeline costs for the Campbell/McClellan plant, $831,000 in fixed gas pipeline costs for the Carson plant, $8,222,000 in fixed gas pipeline costs for the Cosumnes plant, and $1,568,000 in fixed gas pipeline costs for the Proctor and Gamble plant.

9. SMUD 2022 proposed budget (See page 78 for $2,166,925 of total outstanding bonds and page 4 for $212 million in annual debt service)
https://www.smud.org/-/media/Documents/Corporate/About-Us/Board-Meetings-and-Agendas/2021/Nov/SMUD-2022-Proposed-Budget-Book_Detailed.ashx

10. U.S. Census, Sacramento City data for July 1, 2021
https://www.census.gov/quickfacts/fact/table/sacramentocitycalifornia,US/PST045221

11. See sources for compensation information.

12. SMUD's 2022 detailed budget provides for $28,047,000 for its Communications, Marketing & Community Relations Segment, spread over 643,740 customers for $43.56 per customer. See page 279 of SMUD 2022 proposed budget (detailed) pdf

13. See page 207 and 277 of SMUD 2022 proposed budget (detailed) PDF

14. Inside Climate News, February 2022, Is the California Coalition Fighting Subsidies For Rooftop Solar a Fake Grassroots Group?

https://insideclimatenews.org/news/08022022/is-the-california-coalition-fighting-subsidies-for-rooftop-solar-a-fake-grassroots-group

15. *Sacramento Bee*, https://www.sacbee.com/news/local/news-columns-blogs/city-beat/article200330899.html

16. *Sacramento Business Journal*, August 27,2019 "SMUD headquarters renovation nears completion"

17. Smart Electric Power Alliance, "Distributed Energy Resources 101: Required Reading for a Modern Grid," February 13, 2017 available here https://sepapower.org/knowledge/distributed-energy-resources-101-required-reading-modern-grid/

18. Vibrant Clean Energy, "Role of Distributed Generation in Decarbonizing California by 2045," https://vibrantcleanenergy.com/wp-content/uploads/2021/07/VCE-CCSA_CA_Report.pdf

19. "Electricity use would surge under California's new climate plan." CalMatters, June 25, 2022. https://calmatters.org/environment/2022/06/california-climate-plan-electricity/

20. "State Electricity Usage to Increase Significantly by 2035, Forecast Shows," California Energy Markets, January 28, 2022.

21. California Energy Commission, March 2021, "SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future", https://drive.google.com/file/d/1l9_Ba0RilMZs4Yd4XPIHQUUmaDqvrqfo/view?usp=sharing CARB's projection is from its Draft 2022 Scoping Plan Update issued May 10, 2022 page 161. https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf

22. SMUD 2019 Integrated Resource Plan, page 10 available here https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj01YSGj7D5AhX-KEQIHeLVA_4QFnoECEUQAQ&url=https%3A%2F%2Fwww.smud.org%2F-%2Fmedia%2FDocuments%2FCorporate%2FEnvironmental-Leadership%2FIntegrated-Resource-Plan.ashx&usg=AOvVaw2bUJc2ymsS9EMNt4c014nR

23. Solar Power World, "SMUD plans to cut net-metering credits by 44% next year," September 17, 2021 https://www.solarpowerworldonline.com/2021/09/smud-plans-to-cut-net-metering-credits-by-44-percent-2022

Environment California found that the even small changes to net metering programs cause large changes in consumer adoption of solar. See *Rooftop Solar at Risk: Cuts to net metering could threaten California's clean energy progress*, July 2021

See background calculations for the claim that SMUD has half the rooftop solar deployment as the statewide average.

We project that SMUD's actions will significantly curtail the market. Because the changes went into effect quite recently on March 1, 2022, there will be a time lag before the impact is clear. SMUD observers should monitor the number of approved interconnection applications issued for rooftop solar on existing homes after July 1, or three months after SMUD's cut in net metering rates. This is important to reduce noise in the data as the market adjusted to the change. Observers should also monitor average solar system size and then compare total kWh of rooftop solar interconnection applications approved over the same time period in the previous year(s). It is important to look at total kWh of deployment rather than just the number of projects because it is likely the average system size will drop along with the number of projects. Observers should also monitor battery attachment rates of new rooftop solar systems and compare to SMUD projections. It is fine to also look at the increase in solar deployment from the statewide Solar Homes Mandate, but only if weighed against changes to installations on existing homes.

24. SMUD charges ratepayers a fixed fee of $23 per month, the highest fixed charge of any major utility in the state of California, with plans for further increases. SMUD's bond documents note that this is an intentional strategy to

“collect a greater portion of the fixed costs of serving customers through a fixed charge rather than through a variable energy charge.” See SMUD 2018 Series F Bond issuance, page 18.

25. SMUD Electric Revenue Bonds, 2019 Series G issuance, page 41.
https://www.munios.com/munios-notice.aspx?e=58FT1