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Rob Koslowsky Comment re 2022 Energy Code Pre-Rulemaking

To Whom It May Concern:

For Docket #: 19-BSTD-03 Project Title: 2022 Energy Code Pre-Rulemaking

I request that the 2019 Building Code be amended to remove the reach code requirement to force rooftop solar and eliminate the all-electric mandate. To ensure cost-effectiveness and also resiliency in the face of rotating blackouts and PSPSs, a mixed-fuel residence is optimal.

New homebuyers across California do not want to become utility operators, while also inheriting the costs of upfront capital expenditures (\$\$), realizing a reduced ability to recoup their investments for generating solar energy, facing a near future requirement to add a battery backup system (\$\$\$), and unknowingly agreeing to maintain, repair, and replace components of a renewable energy system (\$\$\$\$) that was once the domain of large utility providers.

For the details, please refer to the attached file: Mandating Rooftop Solar is a Bust_v2_RKK_March 2021.

Thank you for your consideration,
â€¦.Rob

Rob Koslowsky
Cloverdale, California
Author of The Tubbs Fire.
Also author of The Upstart Startup & Breach of Trust.
Author's page

Additional submitted attachment is included below.

Mandating Rooftop Solar: It's a Bust!

“While rooftop solar should not be discouraged, it is bad public policy to impose this responsibility and financial burden on those who choose not to operate their own systems, when large scale professionally managed systems can provide renewable power more efficiently and reliably.”

– John Lowry, a member of the Sonoma County Planning Commission and a retired executive director of Burbank Housing, September 2020

On September 23, 2020, I held a conference call with one of Sonoma County's planning commission members, John Lowry. We discussed rooftop solar, which was recently mandated by the State of California for all new residential construction, as a matter of public policy. John sees all-electric construction, however, as an *alternative* to the mandate for rooftop solar panels and the anticipated home power storage requirement. Although we may disagree on the use of natural gas going forward, we both strongly resonate with utility operators providing solar energy, not individual homeowners forced to do so.

Our discussion emerged as a result of Lowry's November 2019 policy paper entitled *Housing and Our Clean Energy Future* coupled with my concerns as a homeowner over such forced government mandates compelling property owners to sacrifice their rooftop for the state and thereby act as utility operators.

We found common ground over the adoption of this *bad* public policy, the **rooftop solar mandate**, included in California's 2019 Building code, effective January 1, 2020. While neither one of us had any qualms with an individual homeowner choosing to join Governor Schwarzenegger's million solar rooftop challenge, we both strenuously object to the forcing of all homeowners to sacrifice their rooftops to house solar panels. The reasons for this reticence are so many they boggle the mind:

1. The State's rooftop solar policy is not a simple fee-based responsibility, but an onerous financial burden and an unnecessary operational hardship for every homeowner and their heirs.
2. The historical suite of solar rebates will one day come to an end as federal rebates disappear and utility-funded credits on energy bills drastically shrink. No longer will a rooftop solar installation pay for itself [1].
3. The significantly higher home costs raises property taxes, so there has been little pushback from most municipalities to date. However, rooftop solar will no longer provide the energy payback it once did [1] and will actually result in reduced home valuations on the resale market, according to local real estate agents.
4. The complex solar system mandated is not only undersized for most residential properties, but it also does not provide backup electricity during rotating blackouts, utility-imposed PSPSs, or electric grid failures. Backroom deals in Sacramento to compel battery backup in future building codes will further raise housing costs and offer limited extra time to “keep the lights on” during those extended hours-to-days long electrical outages.
5. Rooftop solar does not provide electricity at a steady, reliable rate, since its availability is, at best, only 28% across Sonoma County, and this excludes severe

curtailment of electric production during high temperatures and smoky and/or ash-filled skies.

6. Coupled with an all-electric mandate, rooftop solar will one day compel all homeowners enjoying the benefits of natural gas to forgo their appliances – furnaces, water heaters, fireplaces, dryers, stoves and cooktops, and more – and replace them with more costly and lower performing electric ones. This is an added financial and operational hardship.
7. Rooftop solar will not result in zero net or carbon free home energy, and it will more than double the cost of producing solar versus utility-scale solar.
8. Compelling this massive cost for every rooftop installation will disqualify new entrants into the home-buying market and put upward pressure on rents. Adding \$40,000 to mortgage financing for rooftop solar will disqualify many potential homebuyers and require landlords to jack up monthly rents on both homes and vacation rentals. It begs the question of county supervisors, “Doesn’t Sonoma County generate much of its revenue from a 12% transient occupancy tax (‘bed tax’)?”
9. Rooftop solar is another regulatory fiat that will be driving even higher housing increases beyond the greater than 150% rise experienced between 2000 and 2019.
10. Like marijuana grow houses [2], rooftop solar puts a strain on the electric grid, requiring upgrades to distribution transformers and the like. In addition to developers of new subdivisions passing this cost on as higher housing prices to new home buyers, homeowners of existing subdivisions will be paying for these network upgrades directly or through further increases in electric rates. What is the cost to rip up streets to replace underground wires for higher capacity?
11. To finance rooftop solar systems, the homeowner often has to sacrifice their Renewable Energy Credits or RECs, a tradable financial asset. Suspicious is the California Energy Commission’s trafficking in RECs [3]. This appointed (unelected) body has an incentive to increase rooftop solar installations through financial subsidies. Using sleight of hand, they purposefully assume control over homeowners’ financial assets and sell them on a private, institutional exchange. The old adage, “follow the money,” comes to mind.

So there you have it, a quick summary of what is a stellar example of *bad public policy* – mandated rooftop solar as part of California’s flawed 2019 Building Code.

“The constraint for solar and wind is their variability. They do not produce electricity at a steady reliable rate because solar needs sunshine and wind needs wind. Technologies for energy storage and efficient long distance transmission do exist; however, these will need to be in place before solar and wind could actually become the mainstays of an entirely renewable energy system. This constraint affects solar and wind power regardless of the scale at which it is developed.”

– John Lowry, a member of the Sonoma County Planning Commission and a retired executive director of Burbank Housing, September 2020

[1] Solar Devalued by 400 Percent: SMUD, for example, identified that its non-solar-producing customers pay \$45 a year extra in costs, a cost that will continue to grow. If nothing else happens, this added cost to those customers *without* rooftop solar will see their utility bills double to \$90

annually by 2030. It's been recognized that solar is nowhere near as advantageous as it once was. SMUD's study reveals the current value of solar is 3-7 cents per kWh. This is about 50-75% lower than the utility's reimbursement paid to its solar customers under the current NEM rate, currently pegged at 12 cents per kWh. SMUD notes, "In 2030, that increases to 16 cents per kWh . . . This means the under-collection of our fixed costs will increase substantially and the costs will be shifted to non-solar customers." It's likely that SMUD and other utilities will begin to value rooftop generation at 3 cents per kWh, or less, going forward, thereby rectifying the issue of the too-generous credits. That translates into a 400% reduction in solar production credits for electric bills of owners of rooftop solar homes.

Excerpt from: *When Did Getting Solar Right Go So Wrong?* R.K. Koslowsky, submitted September 14, 2020

See also: <https://www.smud.org/en/Rate-Information/Getting-solar-right>.

[2] Talk about lighting up: A single joint of cannabis is equal to a 100-watt light bulb that has run for 17 hours straight.

[3] It's about time our state government and its appointed energy commission explained their "behind closed doors" behavior and flawed rationale for sustaining self-serving solar regulations within the 2019 building code. I outlined this issue in *All-Electric Homeowners Becoming Wary of the State's Shell Game - Is California Secretly Bailing Out PG&E Due to the wRECKing crew?* R.K. Koslowsky, submitted May 17, 2020.

Mandating Rooftop Solar = Bad Public Policy

- is *bad* public policy, to impose operational responsibility and financial burdens on property owners
- is *misdirected* public policy, because the system is limited by both its lack of storage and bidirectional transmission infrastructure
- will *not* produce electricity at a steady, reliable rate, offering *limited* solar production during high temperatures, smoky skies, and cloud cover
- is another *added regulatory fiat* that has driven housing in Sonoma County to increase beyond the greater than 150% between 2000 and 2019, even before the latest building codes went into effect on January 1, 2020
- will *not* result in zero net or carbon free home energy, without a natural gas ban
- will *more than double* the cost of producing solar energy versus utility-scale solar
- will *add new costs* to housing developments and push the costs of residential homes significantly higher beginning in 2020
- will compel homeowners to perform ongoing repair & maintenance akin to a utility
- will add up to \$40,000 to mortgage financing, disqualifying many potential home buyers
- will put upward pressure on rents, including vacation rentals
- will one day compel all homeowners with natural gas to have their appliances torn out and replaced with less economical and lower-performance electric ones
- will put added strain on the electrical distribution network
- requires homeowners to forgo their Renewable Energy Credits, a financial asset
- will increase residential property taxes, while compromising resale value



Inspired by *Housing and Our Clean Energy Future*, John Lowry, November 2019

Graphic courtesy R.K. Koslowsky

Widespread Solar Raises Electricity Prices for All

- Solar panel and component pricing down (**that's good**), but it's only the 1/3 part of the story per economists.
- Electricity prices increasing \$
- Solar devalued: monthly credit on electric bill to be reduced by 400% \$
- Initial cost of solar paid for by homeowner instead of utility \$\$
- Battery backup system costs \$\$\$
- Ongoing maintenance, plus repair and replacement costs \$\$\$\$
- Solar mandate makes homes less affordable, less safe, reduces property values, and compromises energy security



"The costs that renewables impose on the generation system, including those associated with their intermittency, higher transmission costs, and any stranded asset costs assigned to ratepayers [must be considered]." – *Do Renewable Portfolio Standards Deliver?* Michael Greenstone and Ishan Nath, May 2019

R.K. Koslowsky