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Renewables Have Raised Electricity Prices

Please repeal the 2019 Building Code making rooftop solar a mandate. The attached report â€“ Renewables Have Raised Electricity Prices_RKK_Nov 2020 â€“ documents the reasons to ban the mandate for rooftop solar. Choice for homeowners to use solar, or not, must be restored.

Previous studies, including the sole-sourced one funded by the CEC, were misleading, the economists and academics note, because they didn't â€œincorporate three key costs,â€ which are the unreliability of renewables, the large amounts of land they require, and the displacement of cheaper â€˜baseloadâ€™ energy sources like nuclear or natural gas plants.

The higher cost of electricity reflects â€œthe 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.â€

In California, to avoid the use of large swaths of land needed for solar energy and the objections by activists to using public or private lands for fields of solar panels, the State, through its building codes, began confiscating homeownerâ€™s rooftops by forcing solar panels to be installed on all new housing construction, starting January 1, 2020. Furthermore, most forced rooftop installations allow the CEC to traffic in RECs, denying most homeowners the ability to own and control their own financial asset. This must be stopped, and choice restored.

Thank you for your consideration,
â€¦Rob

Additional submitted attachment is included below.

Renewable Mandates Such as Rooftop Solar Continue to Raise Electricity Prices

"Facts do not cease to exist because they are ignored."
– Aldous Huxley (1894 – 1963), writer, philosopher

"People who read [media] stories are understandably left with the impression that the more solar energy we produce, the lower electricity prices will become . . . And yet that's not what's happening. In fact, it's the opposite . . . Between 2009 and 2017, the price of solar panels per watt declined by 75 percent . . . And yet – during the same period – the price of electricity in places that deployed significant quantities of renewables increased dramatically: 24 percent in California during its solar energy build-out from 2011 to 2017."
– Michael Shellenberger, *Forbes*, April 23, 2018 [1]

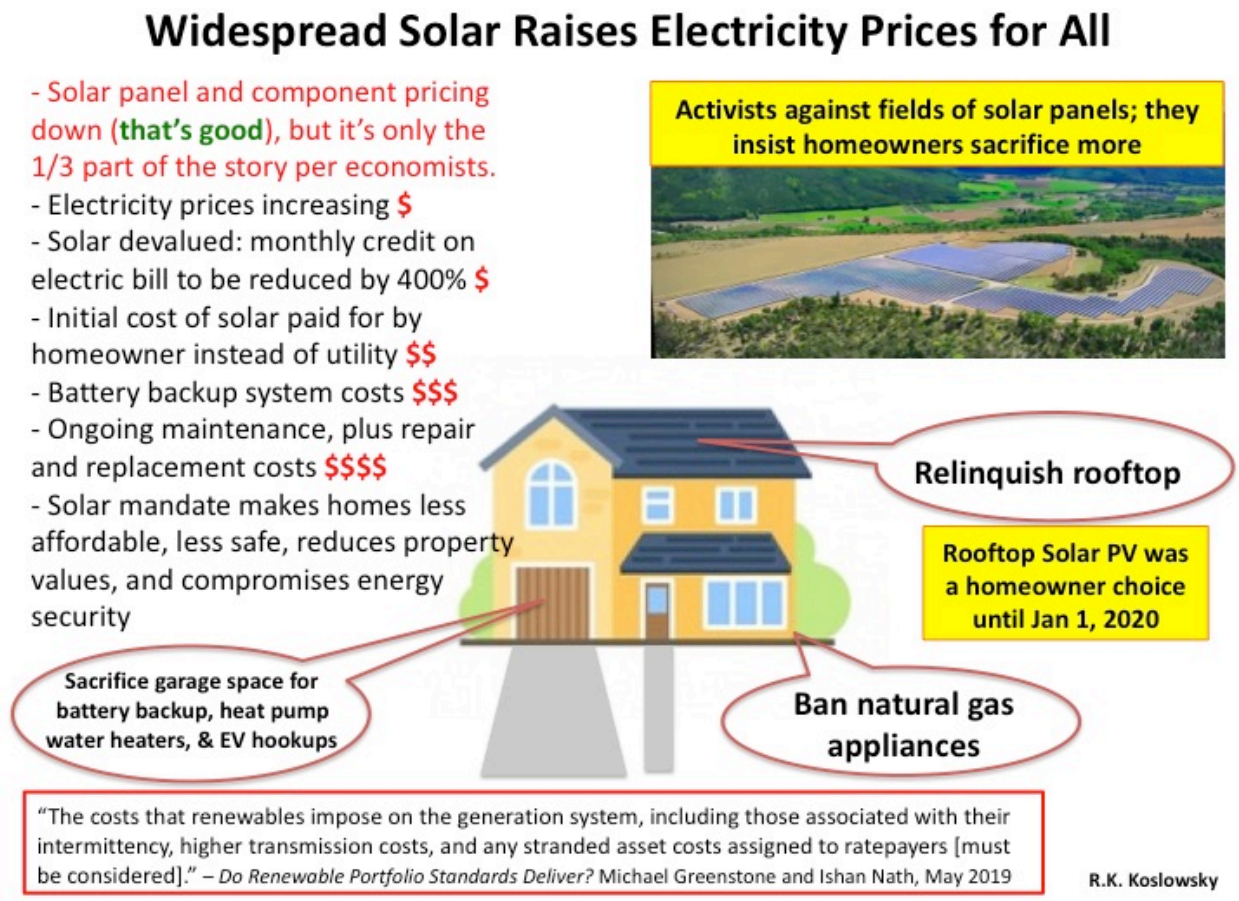
As early as 2013, Leon Hirth, in his article published in Energy Economics, identified the declining value of solar and wind energy as penetration grew [2]. His study reported that solar panel and component pricing would drop, which was good for installations during the last decade. However, electricity prices would increase, due to the variable nature of solar and wind resources, which is bad for those with a high electric usage.

This point is underscored in a 2019 study discussing the unreliable nature of solar and wind, which makes electricity more expensive. A team of economists from the University of Chicago finds that Renewable Portfolio Standards (RPS) "significantly increase average retail electricity prices, with prices increasing by 11% (1.3 cents per kWh) seven years after the policy's passage into law and 17% (2 cents per kWh) twelve years afterward." In California, these increases in electricity rates are much higher [3]. In fact, to add insult to injury, new homeowners of these experimental all-electric homes saw their utility bills increase by a further $172 during 2020. Electric rates were already increased by 2.7% as of January 1st and then increased another 8.8% on August 1st. This translated into an additional $132 increase for all homeowners' electric bills in addition to the $40 annual increase started in January.

At the national level, the cost to consumers has been exorbitant: "All in all, seven years after passage, consumers in the 29 states had paid $125.2 billion more for electricity than they would have in the absence of the policy," the economists Michael Greenstone, Richard McDowell, and Ishan Nath write. In percentage terms, the cost to Californians for electricity use is among the highest in the nation.

Michael Shellenberger, an industry observer notes, "Solar and wind require that natural gas plants, hydro-electric dams, batteries or some other form of reliable power be ready at a moment's notice to start churning out electricity when the wind stops blowing and the sun stops shining . . . And unreliability requires solar- and/or wind-heavy places like Germany, California, and Denmark to pay neighboring nations or states to take their solar and wind energy when they are producing too much of it."

The corollary is true. When California requires too much electricity, it must receive power from neighboring states, which, as consumers learned from the rolling blackouts of 2020, could not happen.



Annette Clayton, president and CEO of Schneider Electric North America, pointed out on September 22, 2020, "Residential energy consumption is expected to double by 2050, contributing to . . . a greater strain on an aging grid that has resulted in more frequent power outages than ever before." Her concern over rooftop solar straining the power grid is albeit mitigated by her interest in a new business opportunity for her company in the Golden State. Such an opportunity is rooted in the California Energy Commission's updates to Title 24 Building Energy Efficiency Standards, which mandate *under-sized* rooftop solar systems on all new home construction, significantly raising the cost of home ownership while, in this case, benefitting an out-of-country corporation.

Don't be Misled Say Economists and Shellenberger

Previous studies were misleading, the economists note, because they didn't "incorporate three key costs," which are the unreliability of renewables, the large amounts of land they require, and the displacement of cheaper 'baseload' energy sources like nuclear or natural gas plants.

The higher cost of electricity reflects "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."

In California, to avoid the use of large swaths of land needed for solar energy and the objections by activists to using public or private lands for fields of solar panels, the State began confiscating homeowner's rooftops [4] by forcing solar panels to be installed on all new housing construction, starting January 1, 2020.

In the meantime, electricity prices continue to rise for everyone, even those who voluntarily sacrificed their rooftops and secured solar systems over a decade ago.

"Researchers as well as policymakers should take the possibility of a limited role for solar and wind power into account and should not disregard other greenhouse gas mitigation options too early."

– Lion Hirth, *Energy Economics*, February 2013

"In 2017, the share of electricity coming from wind and solar was 53 percent in Denmark, 26 percent in Germany, and 23 percent in California. Denmark and Germany have the first and second most expensive electricity in Europe . . . By reporting on the declining costs of solar panels and wind turbines but not on how they increase electricity prices, journalists are — intentionally or unintentionally — misleading policymakers and the public about those two technologies."

– Michael Shellenberger, *Forbes*, April 23, 2018 [1]

[1] https://www.forbes.com/sites/michaelshellenberger/2018/04/23/if-solar-and-wind-are-so-cheap-why-are-they-making-electricity-more-expensive/#61965a681dc6
[2] The market value of variable renewables: The effect of solar wind power variability on their relative price, Lion Hirth, February 19, 2013, *Energy Economics 38*, pp. 218–236.
[3] https://epic.uchicago.edu/wp-content/uploads/2019/07/Do-Renewable-Portfolio-Standards-Deliver.pdf
[4] *Confiscation of Rooftops*, R.K. Koslowsky, submitted March 15, 2020: Confiscation is used to punish. The State, through five appointees, has begun a massive rooftop confiscation of private residences. It's literally a government-sponsored land grab. However, this aerial real-estate appropriation was imposed by non-elected officials, the five appointed members of the California Energy Commission (CEC).