Comments on Proposed CPUC Decision Revising Net Energy Metering Tariffs[1]

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Based on review and analysis[2] of the proposed decision (PD), I conclude that it will not have the intended result of increased deployment and coupling of rooftop solar and batteries, but it will have the unintended result of a precipitous decline in retail solar sales and deployment capacity statewide.[3]

The utility narrative, which the CPUC embraces in its proposed decision, is that electricity generated on roofs is as valuable, and no more valuable to the grid as bulk electricity generated at solar power plants before it is transported and distributed to communities and customers. A competing narrative is that 1) when homeowners' solar systems generate more electricity than their homes consume, the electricity spreads around their neighborhood and community, and other customers pay full retail price for it, and 2) because the utility does not incur additional generation, transmission and local grid infrastructure costs as a result of NEM "over-generation" and actually avoids some new transmission costs, the price the utility pays should be based on the revenues it collects.

These are profoundly different narratives. In California, there is factor of at least five difference in the value that they attribute to rooftop solar electricity. The second, higher value narrative has prevailed for decades until now. What if it is replaced with the first? That is what the PD will accomplish. What then? Payback periods for NEM solar will approximately double. Appropriately sized solar plus storage installations will cost at least fifty percent more than "solar only" systems of the past. Depending on yet-to-be-determined peak rates for solar electricity. Cost shifts between and among customer classes are proposed. They radically change the retail solar value proposition. Because they make life cycle valuation much more complex and contingent on future CPUC decisions, their effect will be disruptive in ways the CPUC has not considered. Positive intended consequences for customers are speculative and over-stated. Negative unintended consequences are not evaluated because they only impact electricity customers indirectly. For example, indirect impacts include loss of city and county economic benefits from on-site solar deployment that currently dwarf any real or imagined savings in utility service costs resulting from the PD. California's retail solar industry is likely to suffer precipitous attrition as a result of its current and future need to present a value proposition to prospective customers based on reliable forecasts of avoided costs.

The need for an attractive value proposition is met now. The future value proposition will be both less attractive and harder to quantify. Time of use rates currently do not encourage on-site battery storage adoption. So, the retail solar industry has not had the opportunity to prepare for the transition that will be required. Its overall financial health and customer acquisition capacity may be significantly degraded. Surviving installers will need time to complete a transition to competently install and service battery storage systems and accurately forecast their economic benefits to electricity users.

Analytical tools, standards and models used by CPUC staff in formulating rule and rate changes are retrospective rather than prospective. Perhaps as a result, the CPUC evinces no interest in how a wrenching retail solar industry transition may play out and what state-wide deployment capacity may remain. Surviving solar retailers will need time to adjust their skill sets and customer cost recovery models. Local governments exercising permitting authority will

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[1] Public comment submitted to the CPUC on January 7, 2022.

[2] See: https://www.iresn.org/s/Consequences-of-Proposed-Repurposing-of-Californias-Retail-Solar-Industry.pdf and https://www.iresn.org/s/NEM-30-Proposed-Decision-Analysis-and-Comment.pdf

[3] The PD shows a surprising, not to say troubling, lack of curiosity about sales and deployment impacts.

also need time to adapt to address and resolve issues of battery lifetime and disposal, installer qualifications, and product certification. Greatly increased collaboration between utilities and local governments will be required.