

Distributed solar incentives: too much or not enough—Perry Sioshansi’s Letter from America

The debate on the costs and merits of distributed solar photovoltaics (PVs) is nothing new.

Everyone knows that there is a range of incentives to encourage their uptake in many but not all markets, some more generous than others. In the case of the US, many states have net energy metering (NEM) laws, which require the local utility to buy all excess generation from customers with solar PVs and offer a credit equal to prevailing retail tariffs. This has been driving the growth of distributed solar.

The popularity of solar leasing, which offers customers the option to gain many of the benefits of solar ownership without the upfront capital investment, has been another major reason for the rapid uptake of solar PVs.

The question, in this context, is are rooftop solar PVs good or evil? Do they benefit all consumers, including the non-solar ones, or are they a form of regressive subsidy from the not-so-affluent non-solar customers to the more affluent solar customers? These are among the thorny questions that have been debated for some time, and not just in the US.

A recent report by the Consumer Energy Alliance titled *Incentivizing solar energy: An in depth analysis of US solar incentives*, provides a comprehensive quantification of solar incentives available in 15 states across the US and their impact on non-solar customers. It includes the federal, state, and local incentives available for rooftop PV.

The report analyses the incentives for solar in Arizona, California, Connecticut, Florida, Georgia, Illinois, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, and North Carolina, relying on publicly available data.

It claims to follow “... a conservative approach to quantify the most common incentives for solar energy.” Take that as a sign that Robert Borlick, the author of the report, is not particularly fond of the prevailing solar PV subsidies or NEM regulation.

The report’s key findings include the following: existing incentives for residential solar PV are significant and vary widely among the states; third party-owned solar PVs receive significant

(additional) incentives; existing incentives will impact the economics of future solar investments; and the NEM incentive shifts costs to less affluent non-solar customers.

The report concludes that combining government incentives, such as the solar investment tax credit, with utility incentives, such as those offered under NEM regulations, have reduced residential customers’ net costs of installing rooftop solar systems to record low levels. It adds that the combination of all available incentives “are now so significant that, in many states, total incentives are greater than a solar system’s total costs”. which explains why “... many states are re-examining the scope and methods surrounding their incentive programmes ...”.

This report is unlikely to put an end to the solar PV incentive debate. The issues are politically charged, and no amount of analysis is going to take the politics out of the economics of solar PV subsidies. Moreover, as others doing similar studies have concluded, the results crucially depend on who is generating the extra kWhs and when and where they are injected into the distribution network.

Solar PVs can be good, evil or anything in between depending on the specifics. Solar PV subsidies can be characterized as necessary, generous or inadequate.

And beyond that, some solar advocates argue that the end may justify the means.

Perry Sioshansi is founder and president of Menlo Energy Economics and is the editor and publisher of EEnergy Informer, from which we have sourced this article, and which we commend.

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If you have a point of view that you would like to see featured, please contact Tom Crisp. His contact details are 01603 604421 or t.crisp@cornwall-insight.com