

THE POTENTIAL IMPACT OF SOLAR TARIFFS IN TWELVE CHARTS

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October 2017

The U.S. solar industry is holding its breath as it awaits the International Trade Commission's coming vote on remedy recommendations in the landmark Section 201 trade case. These recommendations will then be delivered to the President, who reportedly recently requested that someone in the Oval Office "[bring me some tariffs](#)".

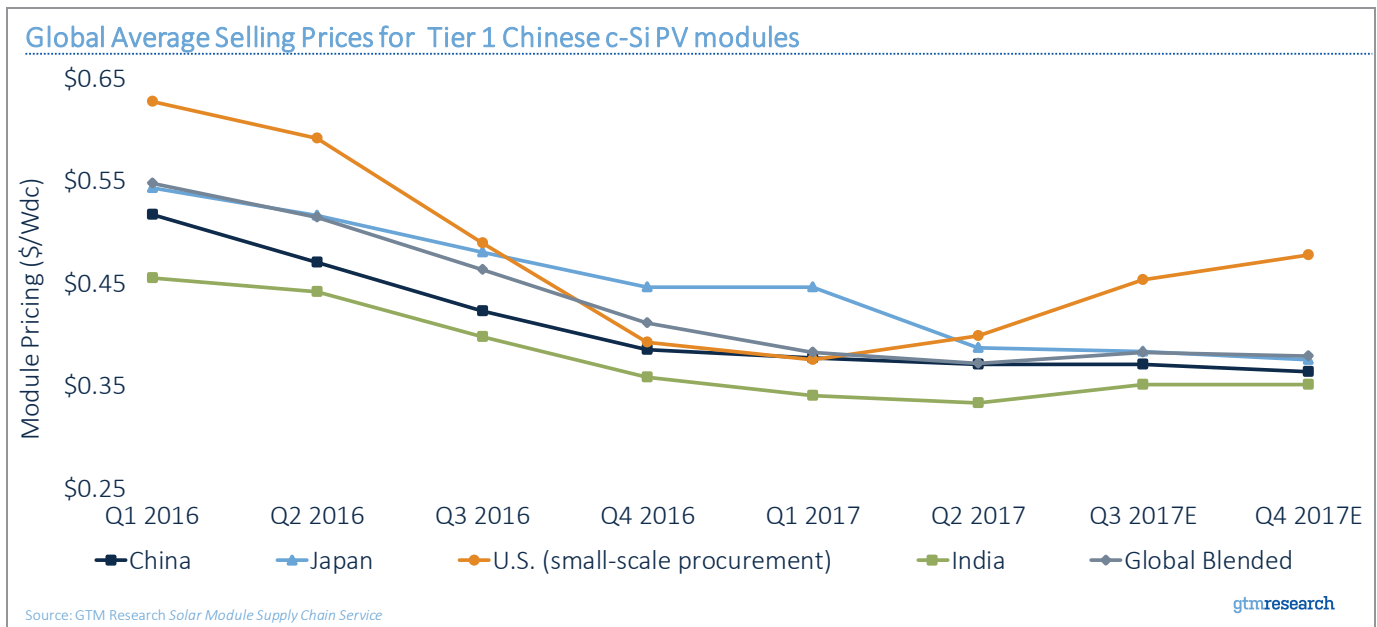
In the meantime, GTM Research just published an updated analysis on the current state of U.S. solar and what might happen if various levels of tariffs were enacted. Clients can access the full report, data and methodology in their [research portal](#).

One cautionary note: our team has been working on this analysis for over a month, so our scenarios (which range from \$0.10/W-\$0.40/W cell tariffs, in increments of \$0.10/W) don't perfectly match with either Suniva or SolarWorld's proposed remedies. But SolarWorld's request aligns closely with our \$0.30/W cell tariff, and Suniva's request is close to our \$0.40/W cell tariff scenario.

On to the analysis.

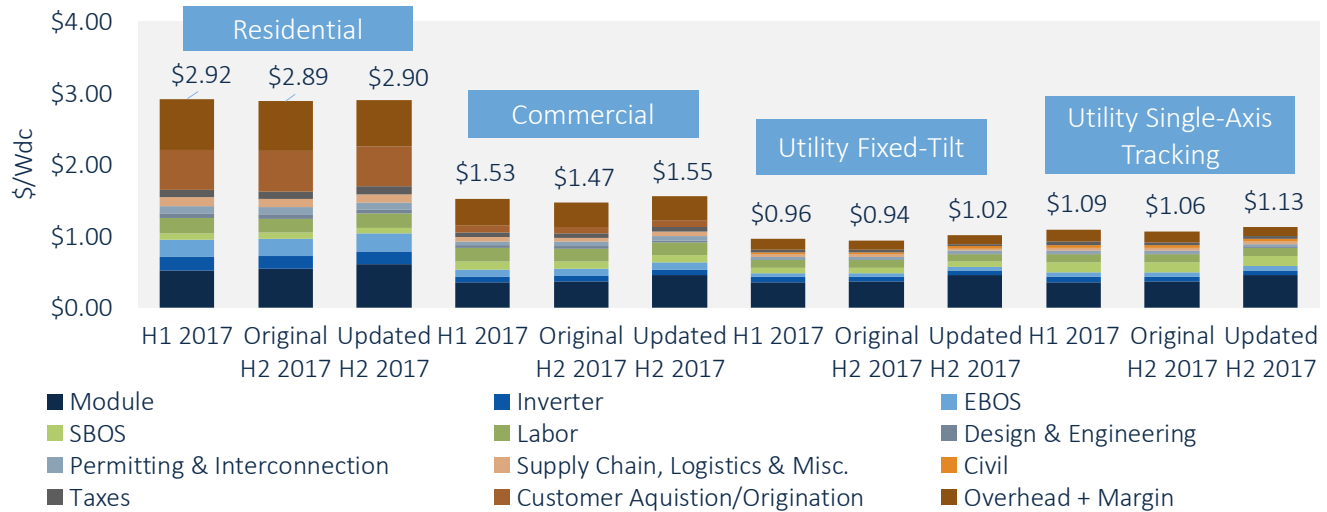
First, what's happening in the U.S. solar market today, even before any remedies are imposed?

- **Tariff risk has caused module prices to increase**, a phenomenon unique to the U.S.



- And while cost reductions in other parts of the system make up some of the difference, **the cost to install solar has *increased*** for the first time in ages.

U.S. EPC Turnkey Pricing – Comparing Change in H2 2017 System Pricing Forecast



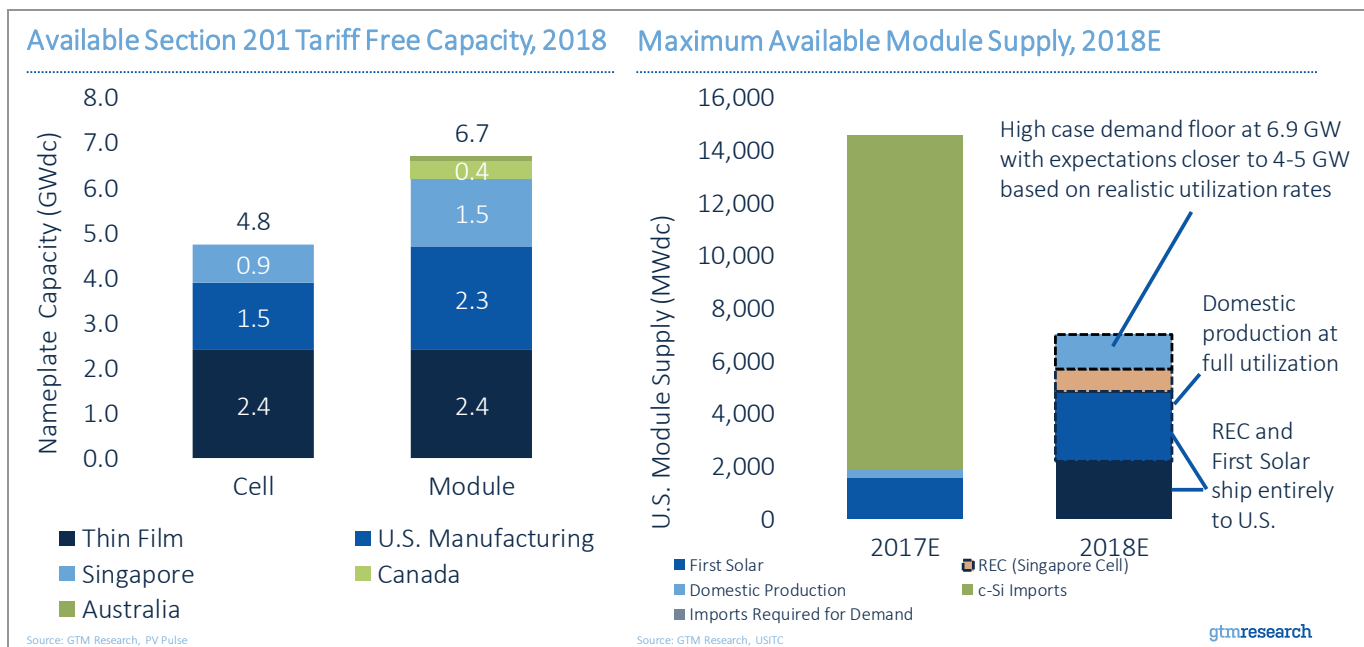
So what comes next?

- The ITC will **vote on October 31** on a remedy recommendation, and Trump will have until January to make a decision



If import tariffs are imposed, what will happen?

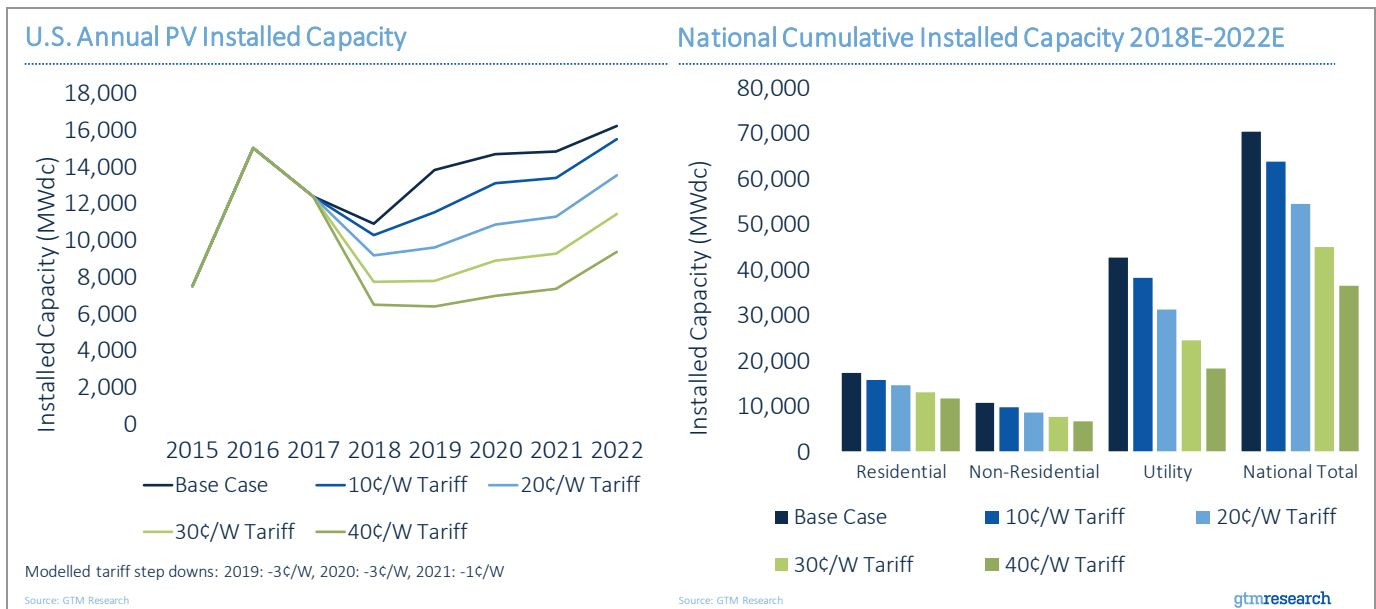
- First, we estimate that there will be nearly **five gigawatts of solar capacity that is not subject to tariffs**, either because it is not subject to the scope of the petition (i.e. thin film) or because both the cells and modules are manufactured in the U.S., Korea, Singapore, Canada or Australia, all of which may be exempt. In addition, over 2 GW of modules have already been procured for 2018 projects, which will temporarily dampen the tariffs' impact on demand.



Those five gigawatts won't be nearly enough to sustain the market, which is otherwise expected to reach nearly eleven gigawatts in 2017, rising to over sixteen gigawatts by 2022.

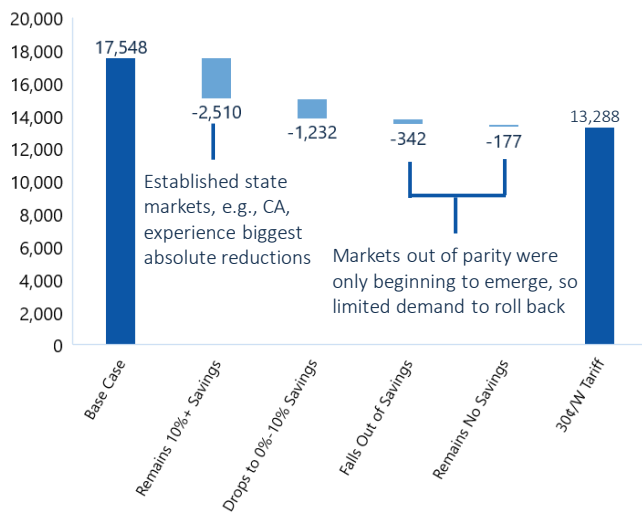
So how much will tariffs impact demand otherwise?

- We estimate that the net impact to our base forecast could range from just **9% under a 10¢/W tariff to 48% under a 40¢/W tariff**. The biggest impacts would be in the utility-scale solar sector, which is most sensitive to price increases, while the residential sector would be the most resilient.



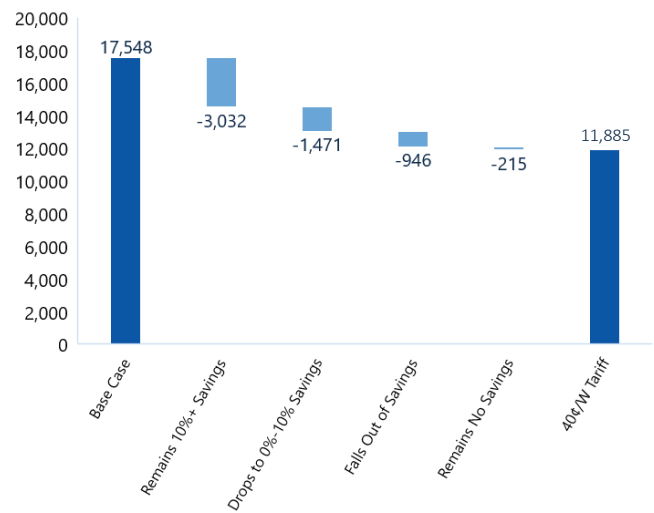
- Every segment, in every state, will be unique. In the residential sector, the **biggest volume impacts would be felt in the largest state markets**, but nascent states – which have just begun to develop vibrant residential solar sectors – could disappear almost entirely.

Residential solar impacts by state market attractiveness, 30¢/W, 2018E-2022E



Source: GTM Research

Residential solar impacts by state market attractiveness, 40¢/W, 2018E-2022E

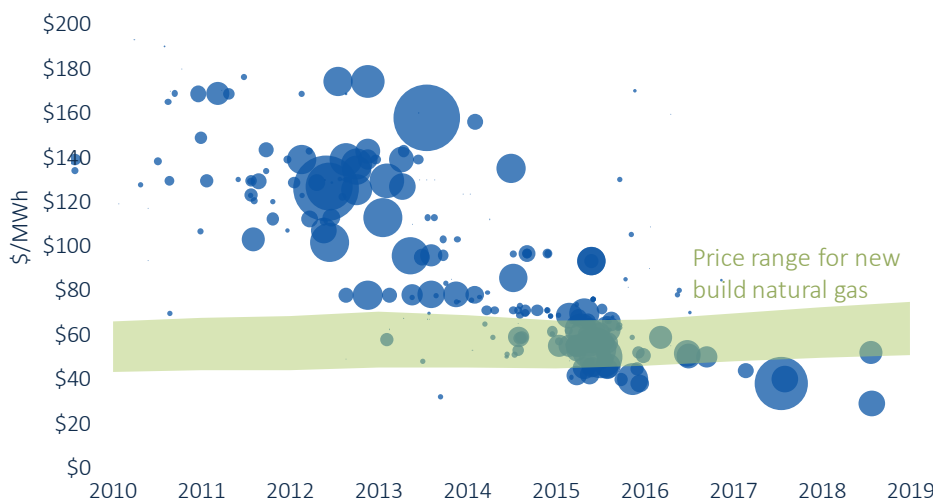


Source: GTM Research

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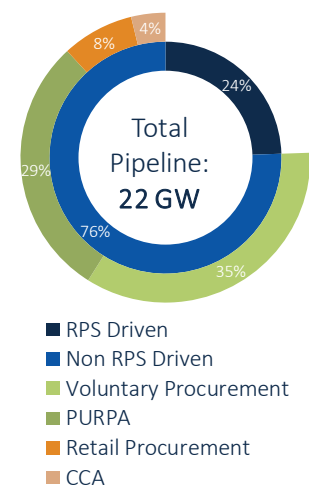
- The utility-scale market would be most sensitive because two-thirds of the project pipeline is driven by solar's razor-thin economic competitiveness with other generation sources.

U.S. Utility Solar PPAs at Interconnection Date vs. New Build Natural Gas Cost of Delivery



Source: GTM Research U.S. Utility Service, Wood Mackenzie North American Power Service

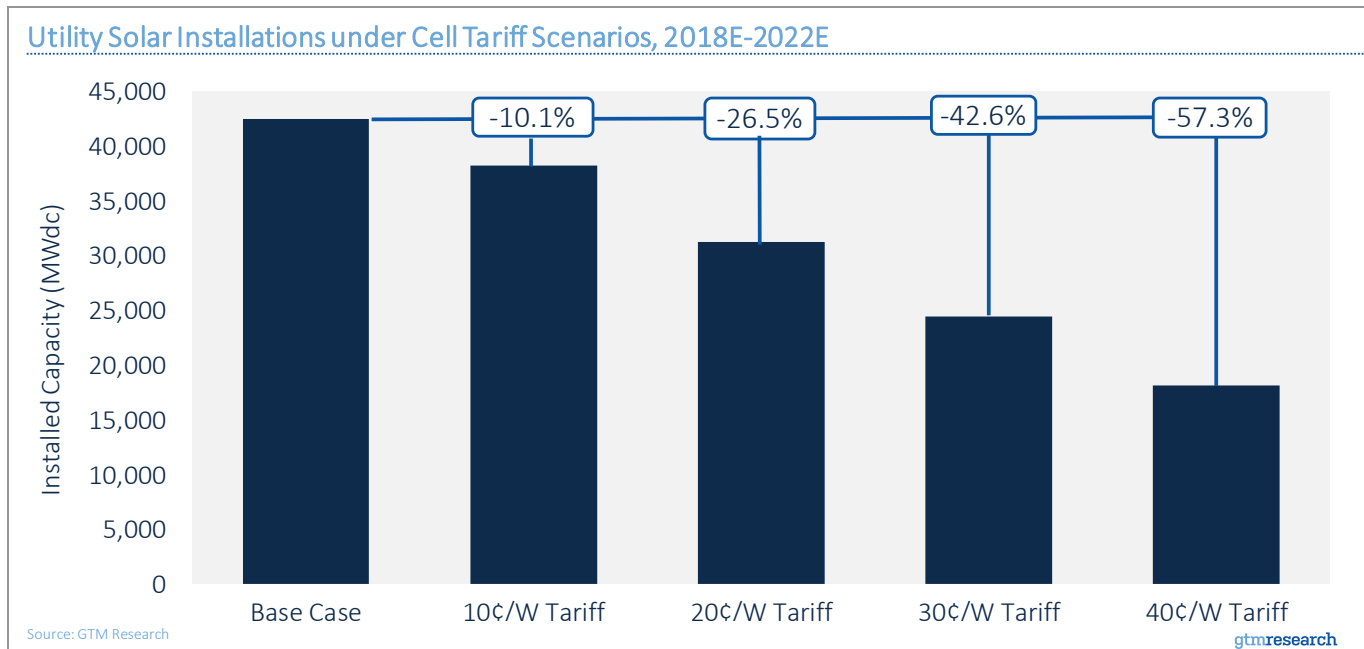
U.S. Utility PV Pipeline (W/ PPAs), Sep 17



Source: GTM Research U.S. Utility Solar Service

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- But even the utility solar market could weather a 10¢/W cell tariff with relatively minimal disruption – just over 10% by our estimate.



So now, with the models set and the post-hearing briefs filed, we wait to see how the International Trade Commission will vote, and what the future of U.S. solar will hold.

For more information on GTM Research and our Section 201 modeling, visit www.gtmresearch.com or contact sales@gtmresearch.com