

# Tortoise QuickTake

## Clean Energy and Infrastructure Podcast



June 11, 2018

**Welcome to the Tortoise QuickTake podcast. Thank you for joining us. Today, senior members of Tortoise provide a timely update on trending topics in the market.**

Hello, I'm Jerry Polacek, Managing Director and Group Lead for Tortoise's Clean Energy and Infrastructure business. Thank you joining us today for our inaugural podcast that is focused exclusively on clean energy.

During today's podcast, we will take a look at the unexpected solar policy shift in China that we think is going to reshape the global solar market for years to come. On June 1<sup>st</sup>, China's National Development and Reform Commission, the Ministry of Finance and the National Energy Administration jointly released the 2018 Solar PV Power Generation Notice. Within days of this notice being published, the leading global solar panel and equipment manufacturers saw their market capitalizations down by a range of 10% to over 30%. While this news has hit the manufacturers very hard, we think this is good news for projects outside of China including the U.S. as it will likely drive solar equipment costs down to ignite sustained project growth.

I think you would agree that this sounds like a pretty dramatic policy pivot, so let's break down what this means for manufacturers.

First, the notice reduces government feed-in-tariffs (FITs) for both utility-scale and distributed solar projects, by a range of 6-9% depending on the region. These decreases will directly reduce project values for Chinese solar projects.

The notice also places a cap on 2018 distributed solar projects that can qualify for the feed-in-tariff. Projects that exceed the cap will not receive the national level subsidy and we believe will likely struggle to repay investors.

Lastly, the notice terminates the previously announced target for 2018 utility-scale solar installations. It also halts issuance of installation permits for new utility-scale projects until further notice. Regional provinces are instructed to stop building utility scale projects that need the 2018 feed-in-tariff.

So why did the Chinese government suddenly withdraw support for solar power? Many sources point to the several billion dollar deficit in a state-run renewable energy fund supporting the feed-in-tariff program as well as recent leadership changes at the Ministry of Finance. Additionally, China has already exceeded its target for solar installations three years ahead of its 2020 deadline. Ultimately, this change will provide a pause for the government to reevaluate its policies and allow the market to evolve into a more competitive one over time.

How does this policy shift affect the global solar supply chain? Not only is China the largest source of demand for solar but it is also the largest manufacturer and exporter of solar equipment. China exported 37% of global solar installations. To fuel this large and growing market, China has been aggressively building domestic manufacturing capacity for several years. With this sudden and dramatic policy shift, analysts expect China's 2018 solar installations to decline by a range of 30% to 40% to total around 30 – 35 gigawatts, and installation activity to stall during the second half of 2018.

Additionally, analysts are estimating 20 GW or more of excess global solar panel manufacturing capacity over the next year. With a massive oversupply environment, the market is expecting a rapid, material drop in average selling prices throughout the supply chain, impacting everything from solar panels to inverters.

The bright side we see from this development is that it should benefit downstream solar project developers and owners focused on large markets outside of China such as those in the United States where we are looking to invest in solar projects. As a result of the expected reductions in solar equipment prices, many developers will likely now be able to secure

panels at prices lower than they had originally forecasted. That incremental margin may be realized through larger development fees and/or increased operating margins should the developer retain a long-term ownership stake. Furthermore, the incremental installation cost savings may serve as a catalyst for development projects that were previously uneconomic to be built.

So, while this policy shift stunned market participants and, in our view, will be detrimental to the upstream solar value chain, likely triggering further consolidation, it may also spur growth in utility scale and distributed solar markets outside of China that will likely benefit from fierce price competition among solar equipment manufacturers. We think this positions Tortoise nicely to take advantage of more opportunities to invest in solar projects in the United States.

We hope that this podcast provided you with some insights on the evolving Chinese solar market and the ripple effects that it is having on global solar markets. We will continue to track developments impacting the clean energy and infrastructure markets we cover and produce follow-on podcasts over time. On behalf of Tortoise, I would like to thank you for joining us.

**Thank you for joining us. And stay tuned for our next cast. Have topics you want covered or other feedback to share? Write us at [info@tortoiseadvisors.com](mailto:info@tortoiseadvisors.com).**

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