



## THE FUTILE SUN WARS

### NAVIGATING THE BATTLE BETWEEN CLIMATE AND GREED

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Ten, twenty years ago, solar power was considered a distant dream, despite the sun being one of the world's most abundant sources of energy. Today, the dream is fast becoming reality as the price of solar power falls rapidly, making it possible for solar to compete with fossil fuel-generated electricity in only a few years. The cost of solar cells and microchips has fallen mainly due to an oversupply of the principal commodity of which they are made; polysilicon. Prices have plunged by 93% in three years, from \$475 to \$33 a kilogram, as the world's top producers have massively increased their output.

According to the Earth Policy Institute, solar photovoltaic (PV) companies manufactured a record 24,000 megawatts of PV cells worldwide in 2010, more than double their output the previous year. Overall, PV production has grown nearly 100-fold since 2000, with countries also expanding their solar power consumption. Newly installed PV also set a record in 2010, with 16,000 megawatts installed in more than 100 countries.

For our climate, this should be good news. Yet many politicians have greeted this news with skepticism. They fear that falling prices will kill the least efficient players in the industry, taking precious jobs away in what is already a recession year. Jobs are now at the center of the "Sun Wars" between the countries spewing the greatest amount of carbon dioxide (CO<sub>2</sub>) into our atmosphere.

In November last year, the world awoke to news from the US Commerce Department that it had accepted a petition from SolarWorld Industries Americas, Inc. to investigate the sale of Chinese solar panels to the US at unfair discounts, and the allegation that Chinese companies may have received illegal subsidies under world trade rules. Two weeks later, China launched a probe into US subsidies for renewable energy companies, covering solar, wind and hydropower products. Sadly, none of this is good news for our climate. Investigations into the various allegations above, if "successful," would end up increasing the price of solar power if anti-dumping duties were to be slapped on solar panels or their components.

Alarmed at the limited understanding of our global inter-connectedness, the Solar Energy Industries Association of America issued a report last year to show that restricting trade would be tantamount to the industry shooting itself in the foot. It explained that while silicon modules might be assembled in the US, and labelled as "made in the USA," much of the material used in their production--glass, encapsulant, backsheets and junction boxes, for example--is often sourced from China, Japan, and/or Europe. Furthermore, while the vast majority of PV cells and wafers are produced in China and Taiwan, and carry the label of "made in China" or "made in Taiwan," much of the capital equipment used to make them is imported from Germany, Switzerland and the US. With the key message being that restricting imports to protect jobs can only hurt a country that does so, when so many of today's equipment and components are globally sourced.

A closer look at the ongoing Sun War also reveals that SolarWorld Industries Americas, Inc. is not actually an American company. It is the American subsidiary of a German company, SolarWorld AG, competing from within the US. And it is that German company that is fighting to erect an American tariff wall to protect itself from China. How the interests of the consumer or the environment can be served through such action is an open question, even if some jobs are created or protected. According to its website, the company employs over a 1000 workers in the US.

But even the jobs argument would merit closer scrutiny. The US Coalition for Affordable Solar Energy (CASE) has made that evident by publicly opposing the investigation against China on the grounds that it could threaten tens of thousands of jobs in the US industry by driving up prices and depressing demand for solar products.

Evidence also shows that trade distortions, whether tariffs on competing imports or subsidies to domestic manufacturers, may not necessarily generate jobs. The filing for bankruptcy this year of the American solar panel maker Solyndra, and the resulting default on its \$258 million federal loan, is a case in point. Governments cannot invent green jobs by protecting the manufacturers of green products. What they can and should do is incorporate the environmental cost of the burning of fossil fuels into the price of these fuels, to make renewable energy more competitive.

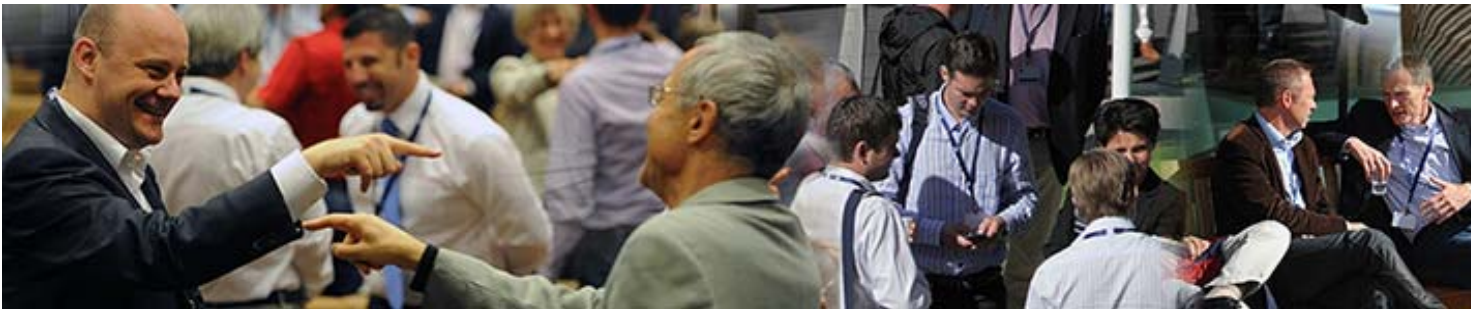
Trade restrictions are also a moving target. Two of the Chinese companies that may be hit with US anti-dumping duties as a result of the ongoing spat, LDK Solar and JA Solar Holdings, have already

indicated that they may move their operations out of China to avoid the "made in China" label that would trigger the US duty. Jack Lai, chief financial officer at LDK Solar, said: "If the business conditions allow, we will be thinking about North America, even African and European assembly if customers would suggest that kind of a demand." If this were to happen, then Chinese and German solar energy makers would simply have to face-off within US borders (with there being no protection possible) —which speaks to the futility of trade wars in an interconnected era.

Today, Chinese manufacturers dominate the global solar power industry, with close to 11,000 megawatts of PV cell production. Taiwan is a distant second, followed by Japan, Germany and the US. While politicians may naturally worry about where solar energy equipment is produced, they would do well to also consider where it might be consumed. Although Germany only ranks fourth in solar cell manufacturing, it towers above all other countries in electricity generation from solar power. It is followed by Spain, Japan, and Italy. Would the US and China – the world's the two biggest CO<sub>2</sub> emitters - not only lag behind in solar power consumption, but also turn the world's climate crisis into a renewable energy trade war?

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