

Incentivising Domestic Manufacturing for a Sustainable Solar Industry

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After Finance Ministry's (MoF) decision to reject Commerce Ministry's (MoC) proposal of anti-dumping duties (ADD) in late August, solar developers heaved a big sigh of relief. In this article, we review the controversy generated by the proposal for ADD in the light of existing evidence and future outlook for the solar photovoltaic (SPV) industry. We find that the popular narrative took a myopic view of the SPV industry. This was exhibited by overstating the negative impact of ADD and vice-versa, and the general buoyancy around the MoF decision, as reported in the news.

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The Crisis of Prices

On 24th August 2014, it was reported that “a solar crisis was averted by Three Ministers”. The MoF was instrumental in cutting a deal between the MoC and Ministry of New and Renewable Energy, which stood on opposite sides regarding the ADD. The crisis referred to was the rise in solar energy prices that the ADD on imports from select foreign producers of solar modules (a key input in the solar power generation set-up) would herald. This would have reduced the pace of solar penetration and impede the ongoing solar surge towards meeting the National Solar Mission’s (JNNSM) target (22 GW of solar generation capacity by 2022).

MoC had earlier determined that manufacturers from China, USA, Malaysia and Taiwan have been ‘dumping’ their products at artificially low prices, causing ‘injury’ to the domestic manufacturers, and accordingly proposed ADD ranging from 15-110% on solar gear imported from those manufacturers. Though the actual findings of MoC were not refuted, its proposal was, on account of the solar power price rise it would lead to.

Low Cost Solar Power- A Premature Hurrah?

The global PV module over-supply, to which India’s low cost solar story owes much gratitude, has shown signs of disappearing as the industry prepares for its first shortfall since 2006. Chinese manufacturers expanded their global module production share from 10% in 2005 to 64% in 2013 on the back of a strong incentive package from the government, leading to bankruptcy and closures among leading PV manufacturers in US, Germany and Japan. The global financial meltdown contributed to slowing down of global solar deployment, and allowed Indian developers to squeeze their costs further, demanding preferential rates and suppliers’ credit terms from Chinese and US module exporters.

Another factor has contributed to the artificial gallop towards parity between solar and coal energy prices. The ‘reverse bidding’ process for price discovery of solar power has seen developers quoting tariffs at shoe-string margins, rendering the projects extremely vulnerable to delays. But is this situation expected to continue?

Our calculations show that if ADD was imposed, landed costs of US modules would have risen by Rs 6.6 per Watt-peak, translating into a tariff of Rs. 6.28 per unit, which is a 7% increase. Even without ADD, solar prices are likely to rise since the global glut is disappearing, and the module prices are expected to increase in the near-term before stabilising. Moreover, solar power purchase agreements may undergo revision to ensure reasonable return for developers. Therefore, we must expect an upward correction in solar energy prices, and this is not necessarily a bad thing! Environmental sustainability has to go hand in hand with financial sustainability.

The Logic of Protectionism

JNNSM has another important ancillary target – achieving a manufacturing capacity equivalent to 4-5 GW of deployment by 2020, including production of 2 GW of Crystalline Silicon (C-Si) cells. This is to ensure that India does not remain entirely import dependent, and that the benefits of solar deployment are distributed through the value chain. The initial experiment with Domestic Content Requirements (DCR) largely failed, as the developers turned to cheaper thin-film modules imported from USA and China. Thin-films accounted for 70% of JNNSM deployments, while the international market was still dominated by the c-Si technology.

Free trade enthusiasts opine that this is not a problem since Indian manufacturing is inefficient and costlier compared to US and China. But this is exactly the problem. The aim of DCR was to create conditions for the ‘infant’ domestic industry to grow by reserving their share, which would otherwise go to large and established foreign firms. The European Union (EU) has

recently got Chinese firms to agree to quantitative restriction and a minimum selling price, and is charging ADD and countervailing duties of up to 65% from non-compliant firms. Even the EU, a solar manufacturing Goliath compared to India, is worried about Chinese dumping. We are not alone!

Strategic Significance of Domestic Solar Manufacturing

A robust domestic manufacturing base in solar power will hold India in good stead in the long - run. We spent almost \$650 million on importing solar gear in 2012, and this may increase to \$ 42 Billion, according to KPMG. This is not surprising given the ambitions of 100 GW of solar deployment by 2030 (current deployment is less than 3 GW). It is relevant to draw a parallel with the electronics industry, where we import 60% of our demand, which contributes 23% to our trade deficit. Indigenisation of 20,000 MW of manufacturing by 2020 can also generate at least 140,000 jobs.

In 2013-14, exports of solar modules grew by over 150% to \$270 million, with Germany, UK, Japan and Netherlands accounting for over 80% of these exports. Perhaps this may help developers back home to shed their apprehensions about locally manufactured modules, and spur the government towards incentivising domestic manufacturing to reach competitiveness in scale and efficiency.

Only one question remains- is the government willing to tolerate, and indeed absorb higher costs in the near term for cost-competitiveness, certainty of supply and building a FOREX earning industry in the longer term?

The Way Forward- Marrying the Twin Targets of JNNSM

Ultimately, the sustainability of Indian solar industry impinges on the dexterity with which the government is able to marry JNNSM's twin targets - achieving 22 GW of solar deployment and 5 GW equivalent of manufacturing capacity by 2020 - by neutralising the trade-offs. Any half-hearted measures in this regard may not be beneficial to JNNSM at best, and impact it adversely at worst.

We recommend that the government should actively support domestic manufacturing and enable cost-effective solar deployment by building manufacturing hubs, inviting FDI and establishing a favourable tax and duty structure to spur technology diffusion, and most importantly, providing access to low cost and longer tenure financing. Simultaneously, it should monitor prices, prevent cartelisation and establish 'sunset' provisions for DCR withdrawal. Together, this will help promote healthy competition and vibrant environment for innovation and growth in India's solar manufacturing sector.