INDIAN RENEWABLE ENERGY SECTOR

Basic customs duty on imported solar cells and modules likely to increase solar bid tariffs, however, the same is positive for domestic OEMs

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Sabyasachi Majumdar
+91 124 4545 304
sabyasachi@icraindia.com

Vikram V
+91 40 4067 6518
vikram.v@icraindia.com

Jatin Arya
+91 124 4545 313
jatin.arya@icraindia.com

Girishkumar Kadam
+91 22 6114 3441
girishkumar@craindia.com

Manasa Gopidi
+91 40 4067 6526
manasa.g@icraindia.com

IMPOSITION OF BASIC CUSTOMS DUTY ON IMPORTED CELLS AND MODULES

BACKGROUND

Likely to result in an increase in the capital cost for a solar power project by 23-24% and in turn bid tariffs by about 45-50 paise per unit

The Government of India supported the solar power sector over the last decade through various incentives and schemes, which led to an increase in the installed solar energy capacity to 38.8 GW as on January 31, 2021 from 35 MW as on March 31, 2011. Further, the Government has set an ambitious target to achieve solar power capacity of 100 GW by December 2022 and 280 GW by March 2030 to meet the targets under the Paris Climate Agreement. However, this did not translate into an increased demand for the domestic solar module/cell manufacturers over the years, with the country fulfilling close to 80% of the solar module requirements through imports. This is due to various factors including lack of scale and backward integration of Indian manufacturers along with large capital requirements for setting up such facilities. The Government of India, through various measures and policies, has endeavoured to protect the interests of the domestic solar module/cell manufacturers in the past. While a push through the domestic content requirement (DCR) programme was thwarted in December 2017 in the wake of the unfavourable order by the World Trade Organisation (WTO), subsequent measures included imposition of safeguard duty (SGD) on imported modules and cells, anti-dumping duty on solar glass, backsheet etc. However, the impact of these measures has been limited so far. With the Government's vision to make India 'Aatmanirbhar' in various industries and considering the large capacity expansion targets in the solar power segment, along with the strategic importance of the power sector to the country, the Government of India has approved imposition of a basic customs duty (BCD) on imported solar cells and modules.

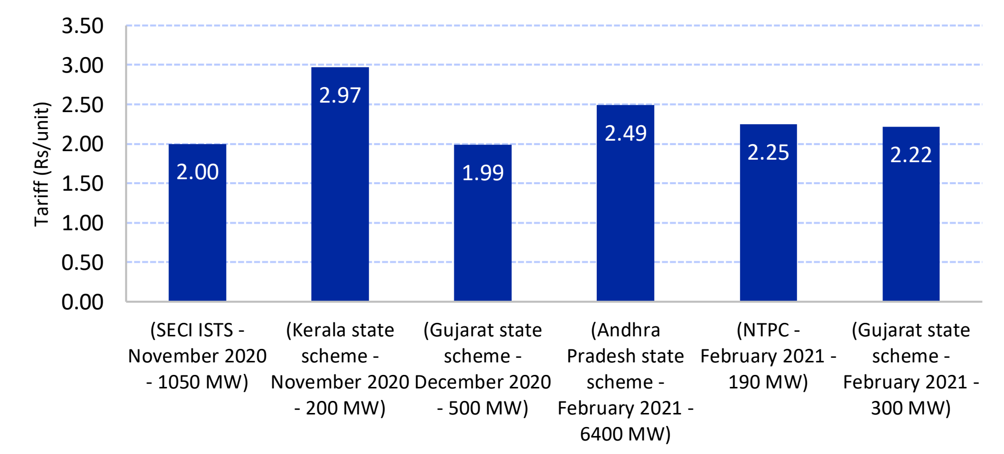
IMPACT OF BASIC CUSTOMS DUTY ON SOLAR TARIFFS

Competitiveness of domestic cell/module manufacturers would improve, extent of benefit would depend on the imported PV module prices

The Government of India on March 9, 2021, has approved a proposal to impose a BCD of 25% on imported solar photo-voltaic (PV) cells and 40% on imported solar PV modules, with effect from April 1, 2022. While this will support domestic equipment manufacturers (OEMs), but it is likely to result in an increase in solar tariffs. The imposition of 40% BCD on solar modules is expected to lead to an increase of 23-24% in the capital cost of a solar power plant as modules form the major portion (~55%) of the overall capital cost. This increase in capital cost is expected to raise the solar power tariffs by 45-50 paise per unit, provided the module prices remain in line with the existing levels. However, clarity is awaited on the continuation of the SGD on imported cells and modules, which currently stands at 14.5% and is valid till July 2021. The above computation, as per ICRA's estimates, factors in the increase in cost considering a scenario where there would be no SGD after July 2021.

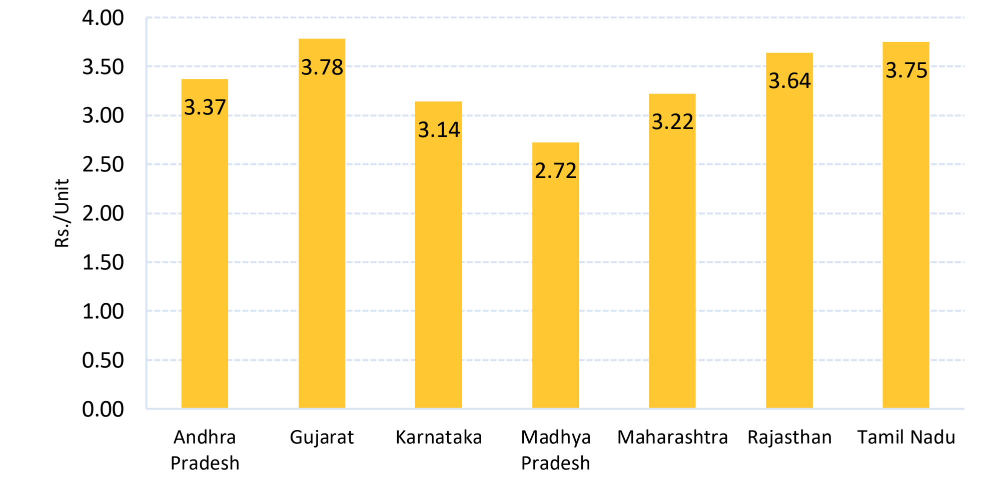
As shown in the exhibit below, the auctions conducted by central nodal agencies and state distribution utilities since November 2020, have witnessed bid tariffs of less than Rs. 2.5 per unit, barring one bid by the state utility in Kerala, where the quoted tariff was Rs. 2.97 per unit. Moreover, the quoted tariff in a bid conducted by the Solar Energy Corporation of India (SECI) in November 2020 reached an all-time low of Rs. 2.00 per unit, which was further breached within a fortnight in an auction conducted by the Gujarat state utility with a quoted tariff of Rs. 1.99 per unit, which is the lowest bid tariff as on date. The major factors that resulted in a decline in tariffs are fall in module prices, lower cost of capital, and higher energy yield aided by the usage of high-efficiency modules and/or trackers. Despite the expected increase in tariff arising from the imposition of BCD on imported cells and modules, the bid tariff trajectory is likely to remain well below Rs. 3/unit and thus would continue to remain cost competitive from the offtakers' perspective. For the state-owned utility off-takers, the average power purchase cost and the variable cost of power purchase (bottom 25% in merit order dispatch) remain in the range of Rs. 4.0-5.0/unit and Rs. 3.0 - 3.5/unit, respectively in the key renewable energy generating states.

EXHIBIT 1: Trends in lowest quoted tariff in bids conducted post November 2020



Source: *ICRA research*

EXHIBIT 2: Variable cost of power procurement (bottom 25% generators as per merit order dispatch) for discoms in key renewable energy states



Source: *ICRA research, meritorder.in*

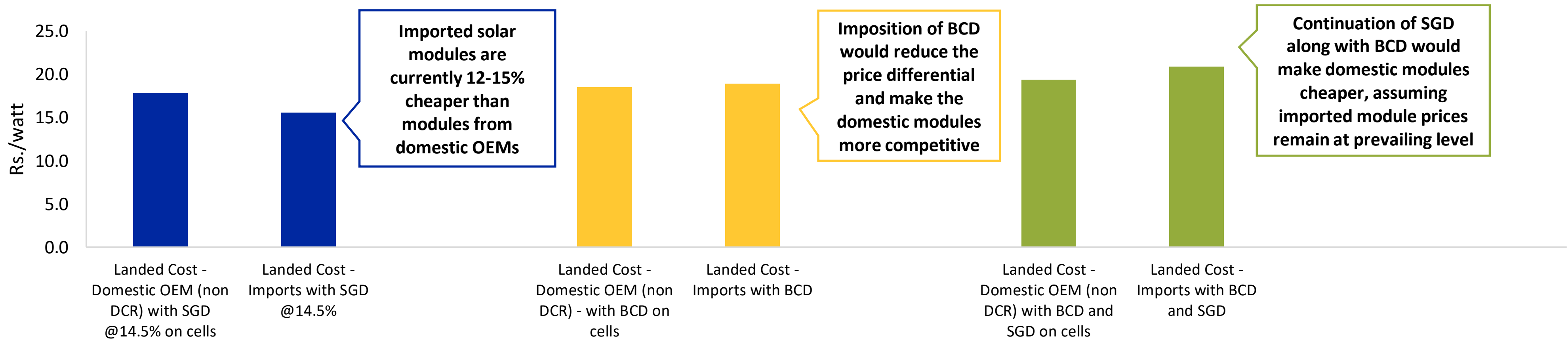
For the projects that have been already bid out with a scheduled commissioning date post April 2022, and wherein modules may be imported post this date, the levy of BCD would be a change in law event under the power purchase agreement (PPA). In such cases, timely approval by the respective regulatory commissions and pass-through of the tariff increase to the offtakers would be critical for the project developers from the cash flow perspective. In addition, the module price trends remain a key monitorable for the solar power developers owing to the recent firmness in imported module prices.

Out of the solar power capacity tendered by the central nodal agencies, PPAs are pending to be signed for ~19 GW (including the 12 GW manufactured linked tender and hybrid tenders) owing to the pending tie-up of power sale agreements (PSAs) with the state discoms. This is given that the tariffs under most of these bids are higher than the latest bid tariff of Rs. 2.0-2.25 per unit. This can be also observed in Gujarat recently, where following the discovery of the lowest tariff of Rs. 1.99 per unit in a recent bid, the state utility is seeking to retender an earlier bid, wherein the discovered tariff was higher at Rs. 2.78 per unit. Given that the tariffs are likely to increase with the announced imposition of BCD, the ability of the central nodal agencies like the SECI to tie up PSAs remains to be seen.

IMPOSITION OF BCD IS A POSITIVE FOR DOMESTIC SOLAR MODULE MANUFACTURERS

The imposition of BCD on imported solar cells and modules is a positive for domestic solar manufacturers as it is expected to improve the competitiveness of domestic cell/module manufacturers. However, the extent of benefit would also depend on the imported PV module prices, especially from China. Based on an imported module price level of 18 cents/watt and the prevailing INR-USD exchange rate, the domestic modules are costlier by 12-15% without the impact of BCD. The imposition of BCD would bridge this gap and make the modules from a domestic manufacturer (using imported cells) competitive against the imported modules. The extent of benefit would be higher for manufacturers having backward integration into cell manufacturing. While clarity regarding continuation of SGD remains pending, in a scenario where the SGD is continued at the existing rate, the competitiveness of domestic modules would increase further.

EXHIBIT 3: Domestic module prices vis-à-vis imported module prices

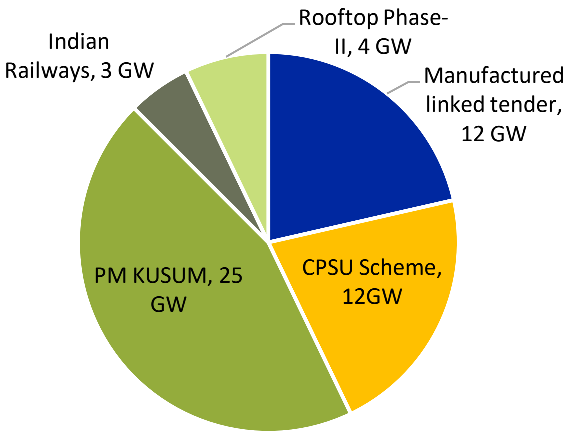


***Source:** ICRA research*

Earlier, the imposition of SGD on imported cells and modules led to limited success in augmenting the production and supplies from domestic manufacturers because of a declining trend in Chinese module prices, inadequate availability of time to ramp up domestic capacity before the SGD tapered down and also because the SGD applied to the local cell and module manufacturers located in the special economic zones (SEZs). A large number of solar module manufacturing units and solar cell manufacturing units in India are located in the SEZs. In this context, clarity is also required on the applicability of BCD on manufacturers located in the SEZs.

This apart, the government has notified multiple schemes like manufacturing-linked IPP tender, central PSU scheme and PM KUSUM scheme etc, with mandatory use of domestically manufactured modules, which provides a strong order pipeline aggregating to about 35-40 GW over the next 3-5-year period, for domestic solar OEMs. However, timely implementation of these notified schemes through timebound project awards and availability of PSAs with the ultimate off-takers remains critical. Also, policy clarity on fiscal and financial concessions including production-linked incentive (PLI) scheme to promote domestic manufacturing, remains important.

EXHIBIT 4: Mix of capacity offered under various schemes notified by Government of India with mandatory use of domestic modules



Source: *ICRA research*

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Business Contacts

Mr. L. Shivakumar
E-mail: shivakumar@icraindia.com
+91 22 6114 3406 / +91 98210 86490

Mr. Jayanta Chatterjee
E-mail: Jayantac@icraindia.com
Tel: +91 80 4332 6401/ +91 98450 22459

Media and Public Relations

Ms. Naznin Prodhani
E-mail: Communications@icraindia.com
Tel: +91 124 4545 860

Registered Office

1105, Kailash Building, 11th Floor,
26, Kasturba Gandhi Marg, New Delhi - 110 001
Tel: + 91 11 2335 7940-50

Corporate Office

Building No. 8, 2nd Floor,
Tower A, DLF Cyber City, Phase II,
Gurgaon - 122 002
Tel: +91-124-4545300

Ahmedabad

1809-1811, Shapath V,
Opp: Karnavati Club,
S.G.Highway, Ahmedabad - 380015
Tel: +91 79 4027 1500/501

Bengaluru 1

'The Millenia', Tower B Unit No. 1004,
10th Floor, 1 & 2 Murphy Road,
Bengaluru - 560 008
Tel: +91 80 4332 6400

Bengaluru 2

2nd Floor, Vayudooth Chamber
15-16, Trinity Circle, M.G. Road,
Bengaluru - 560 001
Tel: +91 80 4922 5500

Chennai

5th Floor, Karumuttu Centre
634, Anna Salai, Nandanam
Chennai - 600 035
Tel: +91 44 4596 4300

Hyderabad 1

4th Floor, 'Shoban'
6-3-927/A&B. Somajiguda
Raj Bhavan Road,
Hyderabad - 500 082
Tel: +91 40 4067 6500

Hyderabad 2

No. 7-1-58, 301, 3rd Floor, 'Concourse',
Above SBI-HPS Branch, Ameerpet,
Hyderabad - 500 016
Tel: +91 40 4920 0200

Kolkata

A-10 & 11, 3rd Floor,
FMC Fortuna 234/3A,
A.J.C. Bose Road,
Kolkata -700 020
Tel: +91 33 7150 1100/01

Mumbai

3rd Floor, Electric Mansion
Appasaheb Marathe Marg,
Prabhadevi,
Mumbai - 400 025
Tel: +91 22 6169 3300

Pune

5A, 5th Floor, Symphony, S. No. 210
CTS 3202 Range Hills Road,
Shivajinagar, Pune - 411 020
Tel: +91 20 2556 1194

Email: Info@icraindia.com
Helpdesk: 9354738909
Website: www.icra.in/ www.Icraresearch.in