

PLI Scheme: Capacity booster; to reduce domestic solar module prices by about ten percent

June 02, 2021 | Renewables

Production Linked Incentive (PLI) scheme along-with Basic Customs Duty (BCD) structure is expected to bridge the gap between the cost of domestic solar PV modules and imported modules along-with substantially decreasing India's dependence on imports. Currently, imported solar modules are cheaper by around 25% compared to domestically manufactured modules. CARE Ratings expects, because of the PLI scheme, cost of domestic solar modules to decline by 8%-14% whereas already announced BCD structure is expected to make imported modules costlier by ~10% thereby bringing the cost of domestic modules largely at par with imported one going forward. Accordingly, PLI scheme augurs well for small sized solar project developers, rooftop power projects and residential customers who rely largely on domestic solar modules.

PLI scheme with its current budgetary allocation is expected to lead to creation of around 10 GW to 12 GW of integrated module manufacturing capacity in the coming two to three years period. With PLI scheme, large sized players are expected to show interest in the domestic module manufacturing, who will bring the required technology and R & D to India leading to decline in cost. However, PLI scheme draws blank for existing domestic module manufacturers who potentially must compete with upcoming large sized integrated domestic players unlike their existing battle with imports.

The scheme

The Union Cabinet on April 07, 2021, approved an outlay of ₹4,500 crore under PLI scheme for domestic manufacturing of 'High-efficiency Solar PV Modules'. India has set an ambitious target of achieving 450 GW of renewable energy capacity by 2030 wherein solar power is expected to occupy a lions' share. To achieve this target, around 25 GW of solar energy capacity is required to be installed every year, till 2030. Solar capacity addition in India presently depends largely on imported solar PV cells and modules; the domestic manufacturing industry has limited annual capacity of around 2.50 GW for solar cells and 9 GW-10 GW for solar modules. The main objective of the PLI scheme to reduce dependence of India on imported solar cells and modules by promoting the setting up of large-sized integrated plants with cutting edge technology for manufacturing high-efficiency modules.

Nuances

Under the extant PLI Scheme, three factor selection criteria for potential beneficiaries includes:

1. Extent of integration across value chain
2. Minimum manufacturing capacity of 1000 MW
3. Minimum committee module performance

The bidder manufacturer getting higher score will get preference in allocation of manufacturing capacity under the PLI scheme as more detailed out in the published scheme.

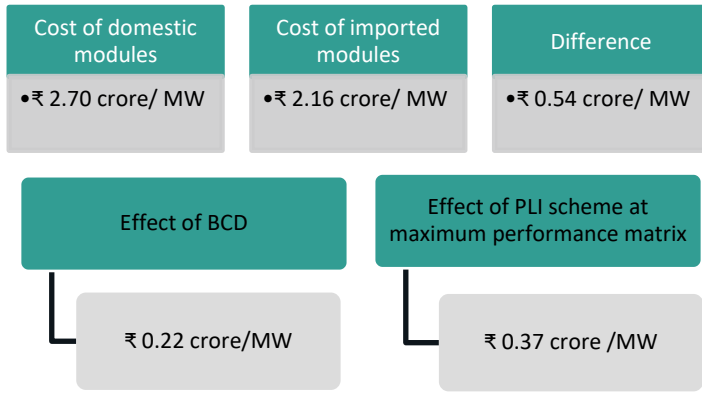
Eligible amount

PLI amount payable to each successful bidder will be calculated as per the following formula: PLI (₹) payable to manufacturers = A x B x C x D

- A : Sales volume (wp)
- B : Base PLI rate ranging between Rs.2.25/wp to Rs.3.75/wp based on guaranteed module performance
- C : Tapering factor (1.4, 1.2, 1, 0.8, 0.6 for 1st, 2nd, 3rd, 4th, and 5th year respectively)
- D : Local value addition expressed in fraction of one

Impact on the pricing of domestic solar modules

Currently, with the applicable 14.5% safeguard duty on import of solar cells and modules, the cost of imported solar modules stood at approx. 24 Euro Cents / Wp compared to domestic cost of approximately 30 Euro cents/ Wp. This gap is expected to be partly filled up with the imposition of Basic Customs Duty (BCD) structure [detailed report at https://www.careratings.com/uploads/newsfiles/15032021032349_CARE_Ratings_Impact_Analysis_of_BCD_Regime.pdf](https://www.careratings.com/uploads/newsfiles/15032021032349_CARE_Ratings_Impact_Analysis_of_BCD_Regime.pdf) announced in March 2021 for imported solar cells and modules, whereas the balance gap is likely to be filled up with the extant PLI scheme announced in April 2021. Comparison of the cost of 1 MW of domestic solar modules & imported solar modules is presented hereunder and the difference between these two is expected to be filled up by BCD structure and PLI scheme as explained:



Under PLI scheme, successful bidder would get ₹0.37 crore / MW subsidy at highest module efficiency with 70% local value addition in the first year. Accordingly, under PLI scheme, depending on the module efficiency & extent of local value addition, the cost of domestic modules could decline in the range of 8%-14% in the first year of operations. Also, large scale of integrated operations in India could further reduce the cost of domestic module manufacturing. However, at the same time it would create serious threat of survival for existing small size players as they would have to now compete with potentially large size integrated domestic players who would also have access to PLI.

Potential limitations

Extant PLI scheme is expected to be helpful to the aspiring investors in domestic module manufacturing. However, there are few issues which should be duly considered:

- PLI given to the manufacturer will depend on actual sale or maximum capacity awarded under the PLI scheme, whichever is less.
- In case a selected manufacturer fails to meet the commissioning timeline / extent of integration / manufacturing capacity promised / minimum performance parameters committed by it at the time of selection, it will not get any PLI till it overcomes these deficiencies.
- Though brownfield projects will be allowed to participate under the extant PLI scheme, PLI rate for such brownfield projects will be 50% of the rate for greenfield projects.
- Bidders will have to submit Performance Bank Guarantees (PBG). In case they fail to implement the promised 'extent of integration' or the 'manufacturing capacity' within scheduled commissioning date, PBGs commensurate to the manufacturing commitments not fulfilled by the bidder will be forfeited by IREDA.

Pros and cons

Pros	Cons
<ul style="list-style-type: none"> • Reduction in cost of domestic solar modules • Reduced import dependency • Integrated manufacturing set-ups to lead to better economies of scale • Balanced sourcing of modules via imports & domestic markets for large size IPPs 	<ul style="list-style-type: none"> • Question of survival for existing small size manufacturers • Potential domestic module manufacturers to be cautious - stringent criteria for disbursement of PLI

Contact:

Mr Amod Khanorkar
Mr Hardik Shah
Mr Mradul Mishra

Senior Director, Ratings
Associate Director, Ratings
Media Contact

amod.khanorkar@careratings.com
hardik.shah@careratings.com
mradul.mishra@careratings.com

+91-22-6837 4444
+91-79-4026 5620
+91-22-6754 3573

Disclaimer: This report is prepared by CARE Ratings Limited. CARE Ratings has taken utmost care to ensure accuracy and objectivity while developing this report based on information available in public domain. However, neither the accuracy nor completeness of information contained in this report is guaranteed. CARE Ratings is not responsible for any errors or omissions in analysis / inferences / views or for results obtained from the use of information contained in this report and especially states that CARE Ratings has no financial liability whatsoever to the user of this report

CARE Ratings Limited

Corporate Office: 4th Floor, Godrej Coliseum, Somaiya Hospital Road, Off Eastern Express Highway, Sion (East), Mumbai - 400 022
Tel.: +91-22-6754 3456 | CIN: L67190MH1993PLC071691

Connect:

