Energising Solar Module Manufacture

Why in news?

Recently Cabinet has approved the proposal for a Production Linked Incentive (PLI) scheme-National Programme on High Efficiency Solar PV Modules.

What will be the outcomes of this initiative?

- This will help in achieving manufacturing capacity in Giga Watt (GW) scale with a higher efficiency of solar PV modules.
- Currently solar capacity addition largely depends upon imported solar PV cells and modules as the domestic industry has limited operational capacities of solar PV cells and modules.
- PLI can increase module efficiency, local value addition, reduce import dependence in a strategic sector like electricity and can support the Atmanirbhar Bharat initiative.

What are the challenges in executing the scheme?

- Though the scheme promotes domestic industry, there are challenges as many components are still imported.
- Close to 80 per cent of the solar module requirements through imports given the cost variation which is due to lack of scale and poor backward integration of Indian manufacturers.
- The capacity addition in the solar power installations in India did not translate into an increased demand for the domestic solar cell/module manufacturers over the years.
- As per the MNRE, India’s cell- and module-manufacturing capacity is 3 GW and 10 GW, respectively.
- Moreover the solar manufacturing in India is largely limited to the last two stages- production of cells and modules.
- Polysilicon which has excellent semiconductor properties is used as feedstock for solar and act as initial building block for manufacturing silicon-based solar PV cells.
- This polysilicon should be kept out as it takes longer to set up projects using it and focus should be on cell and modules which will help expand capacity faster.

What are the steps taken by the government to solar sector?

- In order to protect the interests of the domestic solar module/cell manufacturers, government has taken various measures and policies.
- This includes safeguard duty on imported modules and cells, anti-dumping duty on solar glass, and basic Customs duty.
- Apart from this government has notified multiple schemes like manufacturing-linked IPP tender, PM KUSUM etc., with mandatory use of domestically manufactured modules.
- This provides a strong order pipeline aggregating to 35-40 GW over the next 3-5-years for domestic solar OEMs.
- But timely implementation of these schemes along with policy clarity on fiscal and financial concessions is required to promote domestic manufacturing.
- This PLI scheme has the potential to not only increase India's installed manufacturing capacity but also bring India back on the global map of solar manufacturing.
- Also the PLI scheme can focus on incentivising MSMEs –which is the backbone of India's economy -that will produce modules and cells.
- This will not only help in having homogeneous distribution of manufacturing units across the country but will add value in terms of employment generation, capacity building etc.

Will competitiveness improve?

- The PLI scheme should be intertwined with incentives subsidised rates for electricity/water along with interest subvention.
- PLI scheme coupled with incentives to manufacturers will help Indian manufacturers compete with global players and reduce Indian solar industry's import dependency.
- However, there is no clarity over the quantum per MW output, disbursement and eligibility criterion.
- China has large scale with integrated operations, technological strengths and various cost advantages for OEMs.
- Hence it is likely that over the near to medium term, dependence on module imports is unlikely to reduce materially for solar IPPs in India.

Source: Business Line



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