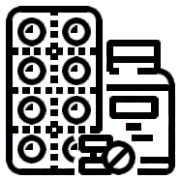


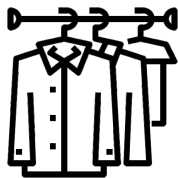
InvAsset's Voice



Production Linked Incentive (PLI) Scheme Steering India to a Manufacturing Mammoth



Renewable
Energy



India's Best Performing and Most Customer Centric PMS

What Is Production Linked Incentive (PLI)?

The PLI is an old and popular tool with governments to stimulate the production of goods that the country sees as necessary for social goods, taxes, or employment-generation reasons. PLI's are essentially the incentives for companies to boost the products. They could be in the form of tax rebates, import and export duty concessions, or maybe easier land-acquisition terms. Generally, the benefits of a PLI scheme are passed on to the final consumers of the goods in terms of lower prices. Through their implementation, it is hoped that economies of scale are created so that domestic manufacturing becomes competitive. The resultant benefits include job creation, export capabilities, and lessening the import dependency – particularly in critical sectors and high-tech goods.

Production Linked Incentive (PLI) schemes were first introduced in India in March 2020, targeting three industries – mobile manufacturing and electric components, pharmaceutical (critical key starting materials/active pharmaceutical ingredients), and medical device manufacturing. The PLI concept has since expanded with schemes rolled out for multiple sectors to boost India's manufacturing capabilities and encourage export-oriented production. The Government introduced this scheme to reduce India's dependence on China and other foreign countries. It supports the labour-intensive sectors and aims to increase the employment ratio in India by developing local supply chain capacities, introducing new downstream operations, and incentivising investments in high-tech production.

In addition to the three schemes announced earlier in March 2020, the Government of India introduced 10 new PLI schemes in November 2020 and 1 new PLI scheme in September 2021. Honourable Finance Minister Nirmala Sitharaman has announced an outlay of INR 1.97 Lakh Crores for the Production Linked Incentive (PLI) Schemes across 14 key sectors to create national manufacturing champions and to create 60 lakh new jobs and additional production of 30 lakh crore during the next five years.

14 Product Linked Incentive Schemes On The Go

March 2020

- Key Starting Materials (KSMs)/Drug Intermediates (DIs) and Active Pharmaceutical Ingredients (APIs): Department of Pharmaceuticals
- Large Scale Electronics Manufacturing: Ministry of Electronics and Information Technology
- Manufacturing of Medical Devices: Department of Pharmaceuticals

November 2020

- Electronic/Technology Products: Ministry of Electronics and Information Technology
- Pharmaceuticals drugs: Department of Pharmaceuticals
- Telecom & Networking Products: Department of Telecommunications
- Food Products: Ministry of Food Processing Industries
- White Goods (ACs & LED): Department for Promotion of Industry and Internal Trade
- High-Efficiency Solar PV Modules: Ministry of New and Renewable Energy
- Automobiles & Auto Components: Department of Heavy Industry
- Advance Chemistry Cell (ACC) Battery: Department of Heavy Industry
- Textile Products: MMF segment and technical textiles: Ministry of Textiles
- Specialty Steel: Ministry of Steel

September 2021

- Drones and Drone Components: Ministry of Civil Aviation

How Will PLI Scheme Steer India Through Its Journey Of Becoming A Production Mammoth?

Employment Generation: Large-scale manufacturing requires a large labour force. PLI schemes are expected to utilize India's human capital and enable upskilling, further minimizing unemployment and unskilled labour.

Surging Exports and Substituting Imports: PLI schemes aim to plug the gap between the highly skewed Indian import-export basket, mainly characterized by heavy imports of raw materials and finished goods. The PLI schemes enable the domestic manufacture of goods, thereby causing a reduction in reliance on imports in the short term and expanding the quantum of exports from India over the long term.

Economies Of Scale: The incentives are directly proportional to the production capacity/incremental turnover which will further compel investors to create large scale manufacturing facilities.

PLI Schemes for Renewable Energy:

PLI scheme for High Efficiency Solar PV Modules: The Government of India is implementing the Production Linked Incentive (PLI) Scheme for the National Programme on High Efficiency Solar PV Modules for achieving domestic manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar.

The government has set aside Rs. 1.97 lakh crore under the PLI schemes for various sectors and an additional allocation of Rs. 19,500 crores was made towards PLI for solar PV modules in Budget 2022-23. Launched in March 2020, the scheme initially targeted three industries: -

- Mobile and Allied Component Manufacturing
- Electrical Component Manufacturing
- Medical Devices



Recently, The Union Cabinet has cleared the Production Linked Incentive (PLI) of Rs. 19,500 crores to incentivise manufacturing of domestic solar cell modules.

- This is a follow-up to the Rs. 500 crore tranche that was cleared in November 2020, aiming at reducing the industry's reliance on China-made panels.
- With the second tranche of the PLI scheme, the government hopes that about 65 GW per annum manufacturing capacity of fully and partially integrated solar PV modules would be installed in the country.

Introduction & Background:

The Union Cabinet approved the Production Linked Incentive (PLI) Scheme for National Programme on High Efficiency Solar PV Modules for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Modules on 7th April, 2021. The outlay for this PLI scheme was initially Rs. 4,500 crore and the Ministry of New & Renewable Energy (MNRE) issued the Scheme Guidelines for Production Linked Incentive Scheme on 'National Programme on High Efficiency Solar PV Modules' on 28th April, 2021.

The Bid Documents for the Selection of Manufacturers for Establishing Manufacturing Capabilities for High Efficiency Solar PV Modules were released under this tranche by Indian Renewable Energy Development Agency Ltd (IREDA), the implementing agency on behalf of MNRE for the PLI Scheme. In response, 18 bids totaling 54,809 MW of solar PV manufacturing capacity were received, and on November 11 and December 2, 2021, IREDA issued letters of award to the three winning bidders for the construction of fully integrated solar PV module manufacturing facilities with a capacity of 8,737 MW as part of the PLI scheme with a budget of Rs. 4,500 crores.

To establish a larger manufacturing base for solar PV modules, an additional allocation of Rs. 19,500 crores for PLI for the manufacture of high efficiency modules, with priority to fully integrated manufacturing units from Polysilicon to Solar PV modules, was announced in the Budget 2022-23, on 1st February, 2022.

Why Is There A Need For This Scheme?

- India as part of its international climate commitments has committed to a target of installing 5,00,000 MW of electricity from non-fossil fuel-based sources by 2030. This translates to 2,80,000 – 3,00,000 MW from solar electricity alone.
- To achieve this there is a need of nearly 30-35 GW (1 GW = 1,000 MW) of solar modules. The PLI scheme will help to add around 70-80 GW of capacity through domestic production as well as export surplus capacity.
- Before the launching of this scheme, the solar capacity addition in the country was largely dependent on imported solar Photovoltaic Cells and modules from China and other countries.

National Programme on High-Efficiency Solar PV Modules:

The Government of India has recently approved the Production Linked Incentive Scheme (Tranche II) on 'National programme on High-Efficiency Solar PV Modules', with an outlay of Rs. 19,500 crores.

About National programme on High-Efficiency Solar PV module:

- The national programme of High-Efficiency Solar PV Modules aims to build an ecosystem for the manufacturing of high-efficiency solar PV modules in India.
- Associated Ministry: The Ministry of New & Renewable Energy.
- Funding: Under it, the government has provided an outlay of Rs. 19,500 crores for achieving manufacturing capacity.
- PLI will be disbursed for 5 years post commissioning of solar PV manufacturing plants on sales of high-efficiency solar PV modules from the domestic market will be incentivised.

What is the Significance?

- This programme will strengthen the Atmanirbhar Bharat initiative and generate employment.
- It will help in reducing the country's import dependence in the area of Renewable Energy.

Aims & Objectives Of The Scheme:

To promote manufacturing of high efficiency solar PV modules in India and thus reduce import dependence in the area of Renewable Energy.

- To build up solar PV manufacturing capacity of high efficiency modules.
- To bring cutting-edge technology to India for manufacturing high efficiency modules. The scheme will be technology agnostic in that it will allow all technologies. However, technologies which yield better module performance will be incentivized.
- To promote setting up of integrated plants for better quality control and competitiveness.
- To develop an ecosystem for sourcing local materials in solar manufacturing.
- Employment generation and technological self-sufficiency.
- To encourage sustainable manufacturing practices and adoption of circular economy approaches.

Outcomes/benefits Expected From The Scheme:

- It will help to install an estimated 65,000 MW per annum manufacturing capacity of fully and partially integrated, solar PV modules.
- It will help to bring a direct investment of around Rs. 94,000 crore and create direct employment of about 1,95,000 and indirect employment of around 7,80,000 persons.
- It will help in the creation of manufacturing capacity for the Balance of Materials like EVA, Solar glass, Backsheet, etc.
- It will give impetus to Research and Development to achieve higher efficiencies in Solar PV modules and help in import substitution of approximately Rs.1.37 lakh crore.

Way Forward:

- The solar PV module production-linked incentive scheme will go a long way in developing the domestic supply chain for solar PV module manufacturing in India.
- Its benefits coupled with State incentives under the industrial policies of the State government, concessional/ deferral duty schemes in customs, etc. will help in improving the Internal rate of return (IRR) of the project and make Indian-manufactured solar PV modules competitive in the market.

Manufacturing In India:

- From less than 10 MW in 2010, India has added significant PV capacity over the past decade, achieving over 50 GW by 2022.
- By 2030, India is targeting about 500 GW of renewable energy deployment, out of which ~ 280 GW is expected from solar PV. This calls for 30 GW of solar capacity every year until 2030.
- India's current solar module manufacturing capacity is limited to around 15 GW per year rest is met through imports.
- An estimated 85 percent of this import need is met by three countries - China, Vietnam, and Malaysia. The value of solar imported since 2014 adds up to \$12.93 billion, or Rs. 90,000 crore.

Challenges For Manufacturing In India:

- Solar cell manufacturing is a complicated process that is technology intensive. Establishing state-of-the-art manufacturing facilities needs access to technology. It is unlikely that companies that have spent millions of dollars on R&D would make it easy for India to access the latest technologies easily or at a lower cost.
- Solar cell manufacturing needs a huge amount of capital. The cost of debt in India (11%) is highest in the Asia-Pacific region, while in China it is about 5%.
- Solar cell technology sees upgrades every 8-10 months making manufacturing inefficient for new entrants.
- Lack of an integrated set-up and economies of scale (despite 100 percent FDI in the renewable energy sector) translates into higher costs of domestic production.
- Solar panel Manufacturing suffers from a huge raw material supply crunch. Silicon wafer, the most expensive raw material in the panel, is not manufactured in India.

Government Initiatives:

- The Union Government established Rs. 19,500 crore production linked incentive (PLI) scheme on 'National programme on high efficiency solar PV modules', seeking to attract Rs. 94,000 crores investment in the sector.
- To address the shortages on the raw material side with respect to silicon wafers, the Centre has decided to provide uniform fiscal support of 50 percent of the project cost for setting up of semiconductor fabrication plants.
- Modified Special Incentive Package Scheme (M-SIPS) of the Ministry of Electronics & Information Technology offers a 20-25 percent subsidy for investments in capital expenditure for setting up a manufacturing facility.
- The government has mandated that a solar power producer should compulsorily source a certain percentage of solar cells and modules from local manufacturers, in order to be able to benefit from the government guarantee to purchase the energy produced.

India's Solar Targets:

- India's solar sector has grown at a compounded annual growth rate (CAGR) of around 59% from 0.5GW in 2011 to 55GW in 2021.
- Under the National Solar Mission (NSM) the total installed capacity target was set as 20GW by 2022. In 2015, the target was revised to 100GW and in August 2021, the government set a solar target of 300 GW by 2030.
- About 30% of India's 100GW (2022) solar target still remains unmet.

Government Schemes:

- **PM KUSUM:** The scheme aims to add solar and other renewable capacity of 30,800 MW by 2022 with total central financial support of Rs. 34,422 Crores.
- **Solar Park Scheme:** The Solar Park Scheme plans to build a number of solar parks, each with a capacity of nearly 500 MW, across several states.
- **Atal Jyoti Yojana (AJAY):** The AJAY scheme was launched in September 2016 for the installation of solar street lighting (SSL) systems in states with less than 50% of households covered with grid power (as per Census 2011).
- **National Solar Mission:** It is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge.
- **SRISTI Scheme:** Sustainable rooftop implementation of Solar transfiguration of India (SRISTI) scheme to promote rooftop solar power projects in India.

Expand PLI scheme to Renewable Energy to make it research-linked, says industry:

The government will soon enhance the funding under the production linked incentive (PLI) scheme for domestic solar cells and module manufacturing to Rs. 24,000 crores from the existing Rs. 4,500 crores to make India an exporting nation. “We brought the PLI scheme (for solar cells and modules) worth Rs. 4,500 crores. We invited bids and we got 54,500 MW manufacturing capacity of solar equipment. We asked the government to sanction Rs. 19,000 crores more under the PLI, which was approved (in principle). Now we would have a PLI of Rs. 24,000 crores. We would be exporting solar equipment”, Power and New & Renewable Energy Minister R K Singh told PTI.

The minister also informed that at present solar module manufacturing capacity in the country is 8,800 MW while the solar cell manufacturing capacity is 2,500 MW.

In April this year, the Union Cabinet approved Rs. 4,500 crores production linked incentive (PLI) scheme to boost domestic manufacturing capacity of solar PV modules.

The scheme is aimed at adding 10,000 MW manufacturing capacity of integrated solar PV modules entailing direct investment of Rs. 17,200 crores at present. With the increase in allocation to Rs. 24,000 crores, the quantum of investments and domestic manufacturing capacity envisaged under the PLI scheme would further increase.

The PLI scheme -- National Programme on High Efficiency Solar PV Modules – approved by the Union Cabinet, is aimed at reducing import dependence in a strategic sector like electricity.

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