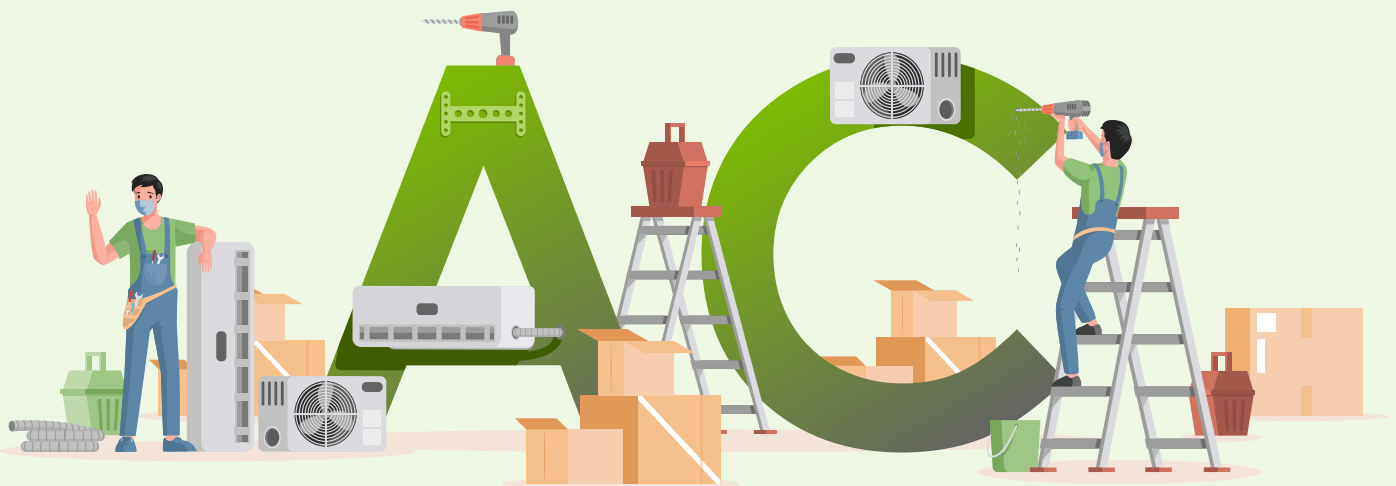


# PLI SCHEME FOR ACs

A Step Towards AtmaNirbhar Bharat

April 2022

Srishti Sharma, Simrat Kaur, Akhil Singhal and Tarun Garg





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## **Prepared by: Alliance for an Energy Efficient Economy**

Alliance for an Energy Efficient Economy (AEEE) supports policy implementation and enables the energy efficiency market with a not-for-profit motive. AEEE promotes energy efficiency as a resource and collaborates with industry and government to transform the market for energy-efficient products and services, thereby contributing toward meeting India's goals on energy security, clean energy, and climate change. AEEE collaborates with diverse stakeholders such as policymakers, government officials, business and industry, consumers, researchers, and civil society organisations. We believe that our work speaks for itself and we hold Respect, Integrity, and Synergy as central to our efforts.

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### **Acknowledgments:**

AEEE would like to take this opportunity to express its sincere gratitude and special thanks to all the Air Conditioner manufacturers who actively participated for providing their valuable inputs and insights, for this policy brief.

### **Suggested citation:**

Sharma, S., Kaur, S., Singhal, A., and Garg, T. (2022). PLI scheme for ACs: A Step Towards AtmaNirbhar Bharat. New Delhi: Alliance for an Energy Efficient Economy (AEEE).

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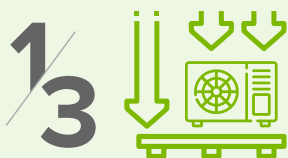
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## INDIAN AC MARKET AT A GLANCE

India is characterized with a tropical and sub-tropical climatic condition and a total of [3000 cooling degree days](#) a year. It is also characterized by ever-evolving socio-economic trends such as rapid urbanization, growing aspirations for better living standards of the expanding middle-income class and better ease in access to finance. With these key growth drivers it is projected that the penetration of Air Conditioners (ACs) in India will grow exponentially from [~25 million units in 2017-18 to 324-580 million units in 2037-38](#). In response, the AC market in India is projected to grow at a CAGR of 11% in the coming decade.

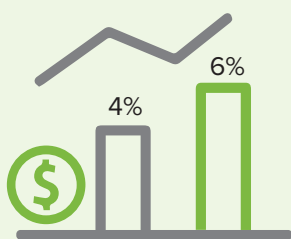
Incidentally, nearly [one-third of ACs in India are currently imported](#) from countries including [China, Thailand, Malaysia, and Japan](#). This implies that a significant proportion of AC demand in India is being met through imports, indicating a lack of self reliance in terms of manufacturing of ACs. In light of these trends and Government of India's (GoI) *AtmaNirbhar Bharat* and *Make in India* initiatives to make India the market leader and a manufacturing hub for ACs, there lies a significant opportunity for strengthening domestic manufacturing and reducing import dependence through policy support and interventions in India.



**one-third of ACs in India are currently imported**

## PLI SCHEME FOR ACs

The Department for Promotion of Industry and Internal Trade (DPIIT), GoI approved the Production-Linked Incentive (PLI) Scheme for White Goods, including ACs and LEDs, on April 16, 2021, with a total budgetary outlay of INR 6,238 crores (US\$ 848.96 million). By offering an incentive of 4–6%, the PLI scheme shall boost domestic manufacturing and attract large investments in the manufacturing value chain by removing sectoral disabilities, creating economies of scale, enhancing exports, creating a robust component system and generating employment. The scheme invites foreign companies to set up units in India, and simultaneously, it also aims to encourage local companies to set up or expand existing manufacturing units, generate more employment and reduce the company's reliance on imports. The PLI scheme provides a financial incentive to boost domestic manufacturing and attract global investments by offering an incentive of 4% to 6% on incremental sales of goods manufactured in India. The government aims to provide support to AC manufacturers under the PLI scheme for a period of 5 years, with FY 2019-20 as the base year. The selection of beneficiaries under the scheme shall be done in a manner that the manufacturing of components or sub-assemblies, which are not manufactured presently in India with sufficient capacity, shall be incentivized. The scheme shall not incentivize mere assembly of finished goods.



**PLI scheme provides a financial incentive of 4% to 6% on incremental sales of goods manufactured in India**

## ELIGIBILITY CRITERIA: PLI SCHEME FOR ACs

### 1. Target segments

The three AC target segments for which the scheme has been introduced are:

S. No.	Target Segment	Eligible Products
(i)	ACs (Components):	Including High-Value Intermediates or Low-Value intermediates or sub-assemblies or a combination thereof
(ii)	High-Value Intermediates of ACs:	Including Aluminum Foil, Copper Tube and Compressor.
(iii)	Lower value Intermediates of ACs:	Including PCB Assembly for Controllers, BLDC Motors, Service Valves for ACs, Cross Flow Fans and other components.

### 2. Selection of beneficiaries

The selection of beneficiaries for the scheme shall be done in a manner that:

- The manufacturing of components or sub-assemblies which are not manufactured in India presently with sufficient capacity shall be prioritized.
- Companies investing in basic/core components shall be prioritized. The notification, however, does not define what components comprise as basic/core components.
- Within a target investment, 'Large Investment' shall be prioritized over 'Normal Investment'. **'Large Investment'** constitutes a total cumulative incremental investment of at least INR 600 crores for AC components, INR 400 crores for High Value Intermediates, and INR 100 crores for Lower Value Intermediates over the span of five years (2021-22 to 2025-26). On the other hand, **'Normal Investment'** constitutes a total cumulative incremental investment of at least INR 300 crores for AC components, INR 250 crores for High Value Intermediates, and INR 50 crores for Lower Value Intermediates over the same time period.
- The mere assembly of finished goods shall not be considered. The beneficiary needs to domestically manufacture the product, and merely assembling the different components together to make the finished product will not be considered.



*First round of online applications for ACs under the PLI scheme were received from 15th June 2021 till 15th September 2021. Applications from 26 companies with investment commitment of INR 3,898 crore have been shortlisted under the PLI scheme for ACs.*

*The second round of application were received from the 10th March to 25th April, 2022 where 8 companies applied.*



### 3. Thresholds

- To be eligible for PLI, a company must fulfill both the criteria of **cumulative incremental investment in plant and machinery** as well as **incremental sales** over the base year.
- An incentive of 4% to 6% shall be extended on **incremental sales (net of taxes)** over the base year of goods manufactured in India. The level of incentive for different target segments under the scheme is 6% in the first two years, 5% in the subsequent two years and 4% in the final year.
- The first year of investment will be FY 2021-22. The first year of incremental sales will be FY 2022-23. Actual disbursement of the incentive for the first year shall be subsequent to the year of incremental sales, i.e. FY 2023-24.

#### a. Thresholds for AC components

Table 1 depicting the eligibility threshold criteria for the ‘AC components’ segment shows that during the first year of the scheme:



- Under the Large Investment category, companies with (a) **minimum cumulative incremental investment** of INR 150 Crores in 2021-22 and (b) **minimum incremental sales** of INR 750 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 45 crores (6% of incremental sales of INR 750 crores) in the following year 2023-24.
- Under the Normal Investment category, companies with (a) **minimum cumulative incremental investment** of INR 50 Crores in 2021-22 and (b) **minimum incremental sales** of INR 250 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 45 crores (6% of incremental sales of INR 250 crores) in the following year 2023-24.

Further, **minimum cumulative incremental investment** and **minimum cumulative incremental sales** thresholds for the whole duration of the PLI scheme are shown in Table 1.

Eligibility Threshold Criteria: AC Components								Rs. Crore
Year	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI
	Large Investment				Normal Investment			
2021-22	150				50			
2022-23	300	750	6%		100	250	6%	
2023-24	400	1500	6%	45	150	500	6%	15
2024-25	500	2000	5%	90	225	750	5%	30
2025-26	600	2500	5%	100	300	1125	5%	38
2026-27		3000	4%	125		1500	4%	56
2027-28				120				60
Total	600	9750		480	300	4125		199

**Table 1: Eligibility Threshold for AC components**



As per table 1, the total minimum cumulative investment requirement for AC components over the period of the scheme is INR 600 crores for large investments and INR 300 crores for normal investment.

## b. Thresholds for High Value Intermediates of goods

Table 2 depicting the eligibility threshold criteria for the 'High Value Intermediates of goods' segment shows that during the first year of the scheme:

- Under the Large Investment category, companies with (a) **minimum cumulative incremental investment** of INR 50 Crores in 2021-22 and (b) **minimum incremental sales** of INR 250 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 15 crores (6% of incremental sales of INR 250 crores) in the following year 2023-24.
- Under the Normal Investment category, companies with (a) **minimum cumulative incremental investment** of INR 50 Crores in 2021-22 and (b) **minimum incremental sales** of INR 250 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 15 crores (6% of incremental sales of INR 250 crores) in the following year 2023-24.



Further, for high value intermediates of goods, the **minimum cumulative incremental investment** and **minimum cumulative incremental sales** thresholds for the whole duration of the PLI scheme are shown in Table 2.

Eligibility Threshold Criteria: High value intermediates of goods								Rs. Crore
Year	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI
	Large Investment				Normal Investment			
2021-22	50				50			
2022-23	125	250	6%		100	250	6%	
2023-24	200	625	6%	15	150	500	6%	15
2024-25	300	1000	5%	38	200	750	5%	30
2025-26	400	1500	5%	50	250	1000	5%	38
2026-27		2000	4%	75		1250	4%	50
2027-28				80				50
Total	400	5375		258	250	3750		183

**Table 2: Eligibility Threshold for High-Value Intermediates of Goods**

As per table 2, under the eligibility threshold criteria for high-value intermediates of goods, an eligible company can receive a minimum total of INR 285 crores for large investment and INR 183 crores for normal investment as incentives over the course of the scheme.

### c. Thresholds for Low Value Intermediates of goods

Table 3 depicting the eligibility threshold criteria for the ‘Low Value Intermediates of goods’ segment shows that during the first year of the scheme:



- Under the Large Investment category, companies with (a) **minimum cumulative incremental investment** of INR 20 Crores in 2021-22 and (b) **minimum incremental sales** of INR 100 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 6 crores (6% of incremental sales of INR 100 crores) in the following year 2023-24.
- Under the Normal Investment category, companies with (a) **minimum cumulative incremental investment** of INR 10 Crores in 2021-22 and (b) **minimum incremental sales** of INR 50 Crores in the subsequent year 2022-23 can receive an **incentive of 6% on incremental sales**, i.e. INR 3 crores (6% of incremental sales of INR 50 crores) in the following year 2023-24.

Further, for ‘low value intermediates of goods’, the **minimum cumulative incremental investment** and **minimum cumulative incremental sales** thresholds for the whole duration of the PLI scheme are shown in Table 3.

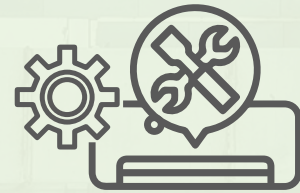
Eligibility Threshold Criteria: High value intermediates of goods								Rs. Crore	
Year	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI	Minimum Cumulative Incremental Investment	Minimum Incremental Sales	PLI	Minimum PLI	
	Large Investment				Normal Investment				
2021-22	20				10				
2022-23	40	100	6%		20	50	6%		
2023-24	60	200	6%	6	30	100	6%	3	
2024-25	80	300	5%	12	40	150	5%	6	
2025-26	100	400	5%	15	50	200	5%	8	
2026-27		500	4%	20		250	4%	10	
2027-28				20				10	
Total	100	1500		773	250	750		37	

**Table 3: Eligibility Threshold for Lower Value Intermediates of Goods**

## SIGNIFICANCE OF PLI SCHEME FOR ACs

The Gol's latest policy push in the form of the PLI scheme for ACs is intended to act as a catalyst for 1) boosting domestic manufacturing for ACs—to be sold domestically and exported in the global markets and 2) improving the scale of production and quality of ACs in the nation. The introduction of such incentives would support Indian AC manufacturers by speeding up their recovery momentum—towards the monetary losses incurred during the COVID-19 pandemic when their [sales came to a halt due to supply chain issues associated with continuous lockdown](#). The incentivization could also foster a reduction in the Capex cost, which could reduce the manufacturing cost and ultimately could result in reducing the cost of AC to consumers. This, in turn, could make it easier for the end-users to purchase higher star rated super energy efficient ACs from the market and would also act as a catalyst in advancing the Bureau of Energy Efficiency (BEE's) efforts through the Standards & Labelling (S&L) program by increasing the penetration of 5-star rated ACs.

Moreover, bringing in incentivization for manufacturing ACs domestically could also make India the market leader in this industry globally by attracting investments in Research and Development (R&D), especially for the super energy-efficient AC technologies. Most importantly, this would also support Gol's *AtmaNirbhar Bharat* initiative by making India *self reliant* in terms of manufacturing ACs domestically alongside being instrumental in enhancing the growth rate of the AC industry and improvising its supply chain in India. All these positive implications of the PLI scheme would encourage local companies to set up or expand their existing AC manufacturing units, attract global manufacturers to set up their manufacturing facilities for ACs in India, generate more employment and reduce the country's reliance on imports by making India *self reliant*.



**Incentivization for manufacturing ACs domestically could also make India the market leader in this industry globally**

## BENEFITS OF THE PLI SCHEME FOR ACs

The introduction of the PLI scheme for ACs will have the following economic, social and ecosystem-level benefits:

### 1. Economic:

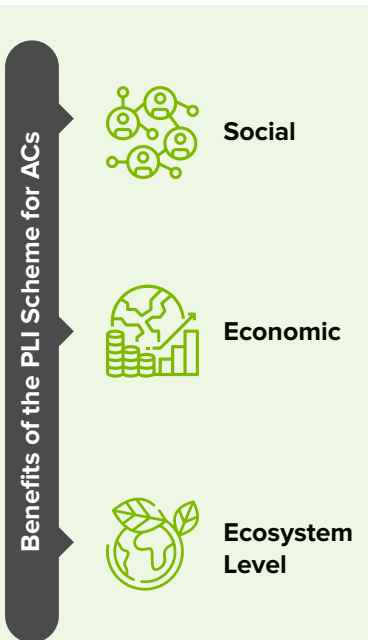
- It has been estimated that over the period of five years, the PLI scheme could:
  - Incremental investment of [INR 7,290 crores](#) (US\$ 1.08 billion)
  - Incremental production worth [INR 1,68,000 crores](#) (US\$ 22.86 billion).
  - Direct and indirect revenues [INR 49,300](#) (US\$ 6.71 billion).
  - Enhancing exports worth [INR 64,400 crores](#) (US\$ 8.76 billion) and developing stronger supply chains nationally.
- Renewed focus on the domestic market domestic manufacturing; supporting ‘Make in India’ and ‘Local for Vocal’.
- Improve overall ease of doing business.

### 2. Social:

- PLI Schemes will act as the cornerstone for Gol’s push for *Atmanirbhar Bharat*.
- Generate additional [4,00,000](#) direct and indirect employment opportunities over the next 5 years.
- Removing sectoral disabilities

### 3. Ecosystem Level:

- Increased interest in local manufacturing will attract investment in R&D which will lead to the introduction of disruptive super energy efficient and cutting-edge technologies of ACs.
- Ecosystem level Advancement: It is designed as an enabler to create a complete component ecosystem in India and make India an integral part of the global supply chains, generate large scale employment opportunities, and enhance exports substantially.



## INDUSTRY RESPONSE

To understand the on-ground reality of the PLI scheme, the AEEE team conducted several one-to-one expert consultations with the key AC manufacturers in India. Several stakeholders were welcoming the PLI scheme as they believed that it would definitely facilitate leapfrog in the growth rate of AC market through its concomitant benefits: 1) will attract global manufacturers to set up manufacturing facilities for ACs and encourage their dedicated vendors to build large scale manufacturing

facilities for components, 2) by emphasizing on manufacturing of components locally the implementation of the PLI scheme would result in the reduction of the supply chain related challenges which are currently being faced while importing components from other countries like China, Thailand, Malaysia etc., 3) make India a large-scale manufacturing hub by becoming the global market leader for the domestic and export markets for ACs, 4) becoming the large scale local manufacturer of AC components such as compressors, heat exchangers, motors, and other components as per the international standards will ensure reliable quality of ACs at competitive prices for domestic and export market and 5) will result in ecosystem-level advancement.

However, several stakeholders also indicated their suggestions for making PLI more inclusive:

### 1. Inclusion of assembly of finished goods as a part of the PLI scheme for ACs:

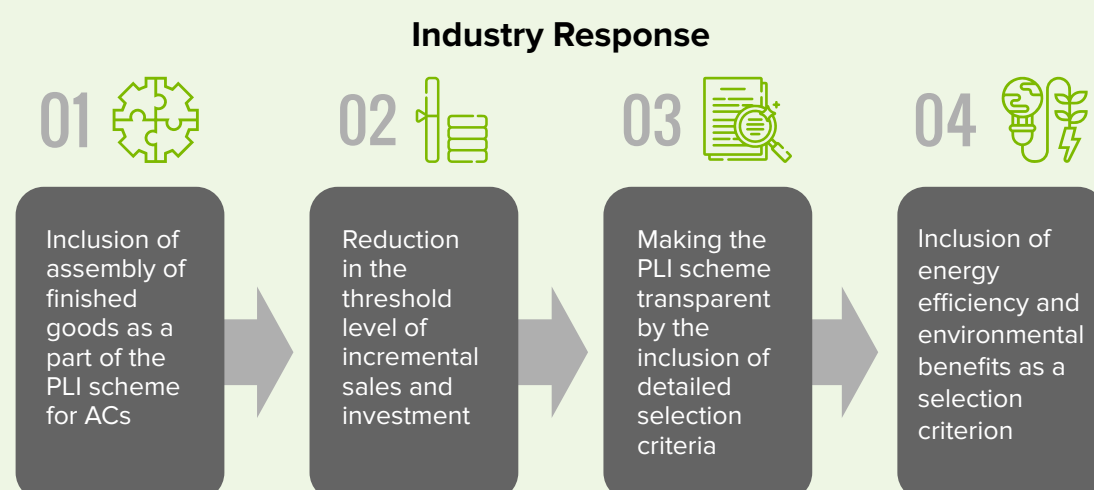
The majority of the stakeholders were aware of this incentivization scheme but were not eligible to avail its benefits, being mere assemblers of AC components. Stakeholders explained that the majority of the key AC manufacturers in India procure the components used in an AC, such as a compressor, expansion valve, and evaporator coil, from Original Equipment Manufacturers (OEMs) instead of manufacturing them in-house. Hence, they could not avail the benefits of the current PLI scheme for ACs. Therefore, to make the PLI scheme for AC more inclusive, they suggested the inclusion of assembly of finished goods in the scheme—assembly being the majority in India's AC industry.

### 2. Reduction in the threshold level of incremental sales and investment:

The majority of the stakeholders also stated that the current PLI scheme could only be availed by a limited number of AC component suppliers due to the defined thresholds for incremental sales and investment under the scheme, which may result in a price monopoly of the AC components; resulting in an increased cost of the AC assembly and ultimately increase in the cost to customers. Stakeholders explained that the assemblers are much nearer to the end-consumers in the AC supply chain when compared to component suppliers/manufacturers. Hence, the only way for the reduction in cost to consumers is through assemblers being able to avail the incentivization as compared to the current situation where the component manufacturers are availing the incentivization, which will not lead to a reduction in cost, rather it may lead to increase in cost to consumers.

### 3. Making the PLI scheme transparent by the inclusion of detailed selection criteria:

The stakeholders also stated that the PLI scheme lacks transparency; not all the registrants who will apply and are eligible for availing of the scheme might not get the benefit under this scheme due to budgetary constraints (INR 6,238 crores). The stakeholders suggested making the PLI scheme more robust and transparent by



detailing the selection criteria for shortlisting the registrants amongst all the eligible registrations received under this scheme and including finished goods under the PLI scheme for bringing holistic improvement in AC manufacturing in India.

#### **4. Inclusion of energy efficiency and environmental benefits as a criterion for eligibility under this incentivization scheme and provision of greater incentive for super energy efficient ACs:**

Most importantly, stakeholders highlighted that, at present, the scheme does not include any eligibility criteria pertaining to environmental benefits or the requirement of offsetting emissions from the manufacturing of AC or its components. Hence, the stakeholders suggested that there could be an inclusion of the criteria saying “only those manufacturers who are off-setting the emissions generated during the AC or AC’s component production” can avail of the benefits of this scheme. By including this criterion, the scheme will support Gol’s *AtmaNirbhar Bharat* initiative, India’s 2030 Nationally Determined Contributions and Prime Minister’s *Panchamrit* commitments. Stakeholders also suggested the addition of a clause for providing special incentivization on the production of ACs with a 5-star rating as per BEE’s S&L program or above to foster a faster transition to super energy-efficient technologies.

These suggestions would result in the improvisation of the PLI scheme for ACs and act as the key to avail the scheme’s maximum benefit at an ecosystem level and bringing in systemic changes.

## **WAY FORWARD**


Although the scheme is still at a nascent stage, it does seem to have all the ingredients required to boost manufacturing, increase investment, generate employment, and promote capacity building and innovation to make India *Atmanirbhar* as far as ACs are concerned. However, presently it lacks elements to boost the manufacturing of super energy efficient ACs. The PLI scheme presents a unique opportunity to incentivize the manufacturing of super energy-efficient ACs, which can help realize economies of scale in the production of 5-star rated ACs. This, in turn, can help optimize the production cost of 5-star rated ACs in India, thereby passing the benefits to consumers.




Authors have written this policy review document based on the information provided in the notification F. No. P-29014/101/2020-LEI. released on 16th April 2021 by the Department for Promotion of Industry and Internal Trade (DPIIT) on the PLI scheme for white goods (Air Conditioners and LED Lights) manufacturers in India.



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