

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 1839
TO BE ANSWERED ON 13.12.2023

ELECTRONIC MANUFACTURING CLUSTERS

1839: SHRI RAJIV PRATAP RUDY:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) the number of Electronic Manufacturing Clusters that have been set up in India, State/UT-wise including Bihar;
- (b) the number of MNCs and Indian startups that have set up their units in the existing EMCs and the number of people they are employing currently;
- (c) whether it is a fact that the electronic manufacturing sector in India has undergone tremendous growth in the recent years;
- (d) if so, the details of the revenue generated by the industry during the last five years along with the potential for growth during the next five years;
- (e) the details share of the country in the total global electronics exports during the last five years along with State-wise exports; and
- (f) the recent steps taken by the Government to transform India into a hub of Electronics Manufacturing by 2030?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI RAJEEV CHANDRASEKHAR)

(a) to (f): Government of India's goal is to broaden and deepen the country's electronic manufacturing ecosystem as well as increase India's participation in electronics Global Value Chains (GVCs). Government has taken several measures to boost electronics manufacturing including semiconductors in the country and incentivize large investments in the electronic goods and appliances as well as to promote exports. As a result of this production of electronics goods, export has grown significantly. To boost the electronic manufacturing, Ministry of Electronics and Information Technology (MeitY) notified Electronics Manufacturing Clusters (EMC) Scheme in October, 2012 to provide support for creation of world class infrastructure for attracting investment in Electronics System Design and Manufacturing (ESDM) Sector. Under the scheme, 19 Greenfield EMCs and 3 Common Facility Centres (CFCs) over an area of 3,464 acres with project cost of INR 3,499 crore including central Grant-in-aid of INR 1,470 crore accorded approval in fifteen (15) states across the country. Ministry of Electronics and Information Technology introduced Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme on 1st April, 2020 wherein any State Government or State Implementing Agency (SIA) etc. or joint venture of such agencies with Anchor Unit(s) or any other industrial estate / industrial park developer can submit its application. The Scheme is open for receipt of application for a period upto March, 2024 and further period upto March, 2028 is available for disbursement of the funds to the approved projects. Under the EMC 2.0 scheme, 5 Electronics Manufacturing Clusters over an area of 1,695 acres with project cost of INR 2,219 crore including central Grant-in-aid of INR 1,036 crore have been approved in 5 states across the country. Under the scheme, no application is received from the state of Bihar so far. In the approved EMCs, 392 companies have taken manufacturing space with projected investment of INR 58, 895 crore and having potential of generating employment for 2.63 lakh people. Out of these, 104 companies are already in production with investment of INR 14,948 crore and provided employment to 67,231 people. Another, 130 companies are in construction stage. More than 1 crore mandays has been generated for infrastructure development in EMC. The domestic production of electronic

items has increased significantly from INR 1.80 lakh crore (29.8 Billion USD) in 2013-14 to INR 8.22 lakh crore in 2022-23 (102 Billion USD) at a Compound Annual Growth Rate (CAGR) of 18.4%, which further expected to grow upto INR 23,95,195 crores (USD 300 Billion) by 2026. Export of electronic goods has also increased from INR 47,557 crore (USD 7.86 Bn) in FY 2013-14 to INR 1,89,934 crore in FY 2022-23 (USD 23.5 Bn), exhibiting Compound Annual Growth Rate (CAGR) of 16.7% (*as per industry estimates*). In 2022-23, the India's electronics exports was approximately USD 23.5 Billion. The steps taken by the Government to transform India as global electronics manufacturing hub is placed at **Annexure**.

Government of India's goal is to broaden and deepen the country's electronic manufacturing ecosystem. In order to boost electronics manufacturing including semiconductors, and position India as a global hub for Electronics System Design and Manufacturing (ESDM) and compete globally, following steps are taken by the Government:

1. **National Policy on Electronics 2019:** The National Policy on Electronics 2019 (NPE 2019) has been notified on 25.02.2019. The vision of NPE 2019 is to position India as a global hub for Electronics System Design and Manufacturing (ESDM) by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally.

To attract and incentivize large investments in the electronics value chain and promote exports, following three Schemes have been notified under the aegis of NPE 2019:

(i) **Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing** was notified on April 01, 2020 to provide an incentive of 4% to 6% to eligible companies on incremental sales (over base year) involved in mobile phone manufacturing and manufacturing of specified electronic components, including Assembly, Testing, Marking and Packaging (ATMP) units.

(ii) **Production Linked Incentive Scheme (PLI) for IT Hardware** was notified on March 03, 2021 to provide an incentive of 4% to 2% / 1% on net incremental sales (over base year) of goods manufactured in India and covered under the target segment, to eligible companies, for a period of four (4) years. The Target Segment under PLI Scheme includes (i) Laptops (ii) Tablets (iii) All-in-One PCs and (iv) Servers.

(iii) **PLI Scheme 2.0 for IT Hardware:** was notified on May 29, 2023 with a budgetary outlay of INR 17,000 crore. The scheme provides increased flexibility and options for applicants, and is tied to incremental sales and investment thresholds to further incentivize growth. Furthermore, semiconductor design, IC manufacturing, and packaging are also included as incentivized components of the PLI Scheme 2.0 for IT Hardware. It will promote large scale manufacturing in Laptops, Tablets, All-in-One PCs, Servers and Ultra Small Form Factor (USFF) devices.

(iv) **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** was notified on April 01, 2020 to provide financial incentive of 25% on capital expenditure for the identified list of electronic goods that comprise downstream value chain of electronic products, i.e., electronic components, semiconductor / display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods. The scheme is open for receipt of applications till 31.03.2024 with disbursement of incentive upto 31.03.2029.

(v) **Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme** was notified on April 01, 2020 to provide support for creation of world class infrastructure along with common facilities and amenities, including Ready Built Factory (RBF) sheds / Plug and Play facilities for attracting major global electronics manufacturers along with their supply chain to set up units in the country. The Scheme provides financial assistance for setting up of both EMC projects and Common Facility Centres (CFCs) across the country. The Scheme is open for receipt of application for a period upto March, 2024 and further period upto March, 2028 is available for disbursement of the funds to the approved projects.

2. **Program for Development of Semiconductors and Display Manufacturing Ecosystem:** To widen and deepen electronics manufacturing, the Union Cabinet on 15.12.2021, approved a comprehensive program with an outlay of INR 76,000 crore for the development of Semiconductors and Display manufacturing ecosystem. With the approval of Cabinet, the programme has further modified on 21.09.2022 in view of the aggressive

incentives offered by countries already having established semiconductor ecosystem and limited number of companies owning the advanced node technologies. The modified programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem. This will serve to pave the way for India's growing presence in the global electronics value chains. The modified programme offers Fiscal Support of 50% of Project Cost uniformly for semiconductor fabs across the technology nodes as well as for compound semiconductors, packaging and other semiconductor facilities.

Following Fiscal incentives are now available to eligible applicants:

- a) **Modified Scheme for setting up of Semiconductor Fabs in India** for attracting large investments for setting up semiconductor wafer fabrication facilities in the country to strengthen the electronics manufacturing ecosystem and help establish a trusted value chain. The Scheme extends a fiscal support of 50% of the project cost on *pari-passu* basis for setting up of Silicon CMOS based Semiconductor Fab in India.
- b) **Modified Scheme for setting up of Display Fabs in India** for attracting large investments for manufacturing TFT LCD or AMOLED based display panels in the country to strengthen the electronics manufacturing ecosystem. Scheme extends fiscal support of up to 50% of Project Cost on *pari-passu* basis for setting up of Display Fabs in India.
- c) **Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab / Discrete Semiconductors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India** shall extend a fiscal support of 50% of the Capital Expenditure on *Pari-passu* basis for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab/ Discrete Semiconductor Fab and Semiconductor ATMP / OSAT facilities in India.
- d) **Semicon India Future Design: Design Linked Incentive (DLI) Scheme** offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design. The scheme provides "Product Design Linked Incentive" of up to 50% of the eligible expenditure subject to a ceiling of INR 15 Crore per application and "Deployment Linked Incentive" of 6% to 4% of net sales turnover over 5 years subject to a ceiling of ₹30 Crore per application.

In addition to the above schemes, Government has also approved modernisation of Semiconductor Laboratory, Mohali as a brownfield Fab.

India Semiconductor Mission ("ISM"), the nodal agency has received three (3) applications under the 'scheme for setting up of semiconductor fabs in India', and two (2) applications under the 'Scheme for setting up of Display Fabs in India'. Appraisal process has been completed. However, none of the applications found suitable for approval. Additionally, ISM has received Six (6) applications under 'Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab / Discrete Semiconductor Fabs and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India'. One (1) application has been approved under this scheme.

3. 100% FDI: As per extant Foreign Direct Investment (FDI) policy, FDI up-to 100% under the automatic route is permitted for electronics manufacturing (except from countries sharing land border with India), subject to applicable laws / regulations; security and other conditions.

4. Modified Special Incentive Package Scheme (M-SIPS): The Scheme was notified on 27th July, 2012 to provide financial incentives to offset disability and attract investments

in the electronics manufacturing sector. It was amended in August, 2015 to extend the period of the scheme, enhance scope of the Scheme by including 15 more product verticals, and attract more investment. The scheme was further amended in January, 2017 to expedite the investments. The scheme provides subsidy for capital expenditure - 20% for investments in Special Economic Zones (SEZs) and 25% in non-SEZs. The incentives are available for 44 categories / verticals of electronic products and components covering entire electronics manufacturing value chain. The Scheme was open to receive applications till 31.12.2018 and is in the implementation mode.

5. Electronics Manufacturing Clusters (EMC) Scheme: Electronics Manufacturing Clusters Scheme was notified on 22nd October, 2012 to provide support for creation of world-class infrastructure along with common facilities and amenities for attracting investment.

6. Electronics Development Fund (EDF): Electronics Development Fund (EDF) has been set up as a “Fund of Funds” to participate in professionally managed “Daughter Funds” which in turn will provide risk capital to startups and companies developing new technologies in the area of electronics and Information Technology (IT). This fund is expected to foster R&D and innovation in these technology sector. INR 409 crore has been committed through EDF to 9 Daughter Funds with a targeted corpus of INR 2,626 crore.

7. Phased Manufacturing Programme (PMP) has been notified to promote domestic value addition in mobile phones and their sub-assemblies / parts manufacturing. As a result, India has rapidly started attracting investments into this sector and significant manufacturing capacities have been set up in the country. The manufacturing of mobile phones has been steadily moving from Semi Knocked Down (SKD) to Completely Knocked Down (CKD) level, thereby progressively increasing the domestic value addition.

8. Tariff Structure has been rationalized to promote domestic manufacturing of **electronic** goods, including, *inter-alia*, Cellular mobile phones, Televisions, Electronic components, Set Top Boxes for TV, LED products and Medical electronics equipment.

9. Exemption from Basic Customs Duty on capital goods: Notified capital goods for manufacture of specified electronic goods are permitted for import at “NIL” Basic Customs Duty.

10. Simplified import of used plant and machinery: The import of used plant and machinery having a residual life of at least 5 years for use by the electronics manufacturing industry has been simplified through the amendment of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, vide Ministry of Environment, Forest and Climate Change Notification dated 11.06.2018.

11. Relaxing the ageing restriction: The Department of Revenue vide Notification No.60/2018-Customs dated 11.09.2018 has amended the Notification No.158/95-Customs dated 14.11.1995, relaxing the ageing restriction from 3 years to 7 years for specified electronic goods manufactured in India and re-imported into India for repairs or reconditioning.

12. Public Procurement (Preference to Make in India) Order 2017: To encourage ‘Make in India’ and to promote manufacturing and production of goods and services in India with a view to enhancing income and employment, the Government has issued Public Procurement (Preference to Make in India) Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order dated 15.06.2017 and subsequent revisions vide Orders dated 28.05.2018, 29.05.2019, 04.06.2020 and 16.09.2020. In furtherance of the aforesaid Order, MeitY has notified mechanism for calculating local content for 13 Electronic Products viz., (i) Desktop PCs, (ii) Thin Clients, (iii) Computer Monitors, (iv) Laptop PCs, (v) Tablet PCs, (vi) Dot Matrix Printers, (vii) Contact and Contactless Smart Cards, (viii) LED Products, (ix) Biometric Access Control / Authentication Devices, (x) Biometric Finger

Print Sensors, (xi) Biometric Iris Sensors, (xii) Servers, and (xiii) Cellular Mobile Phones, for procurement to be made from local suppliers.

13. Compulsory Registration Order (CRO): MeitY has notified “Electronics and Information Technology Goods (Requirement of Compulsory Registration) Order, 2012” for mandatory compliance to ensure safety of Indian citizens by curbing import of substandard and unsafe electronic goods into India. 63 Product Categories have been notified under the CRO and the order is applicable on 63 product categories.

14. Establishment of Gallium Nitride (GaN) Ecosystem Enabling Centre and Incubator: The project for “Establishment of Gallium Nitride (GaN) Ecosystem Enabling Centre and Incubator for High Power and High Frequency Electronics” has been approved. The project will be implemented by Society for Innovation and Development (SID), being converted to a Section 8 company titled “Foundation for Science, Innovation and Development” under the auspices of Indian Institute of Science (IISc) at Centre for Nano Science and Engineering (CeNSE), Bengaluru.
