National Policy on Electronics (NPE)

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***Source**: Ministry of electronic & Information Technology*

The Government has recently introduced National Policy on Electronics 2019 (NPE 2019. The Policy envisions **positioning 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.

Background

The implementation of the Schemes/ Programmes under the aegis of the National Policy on Electronics 2012 (NPE 2012) has successfully consolidated the foundations for a competitive Indian ESDM value chain. NPE 2019 proposes to build on that foundation to propel the growth of ESDM industry in the country. The National Policy of Electronics 2019 (NPE 2019) replaces the National Policy of Electronics 2012 (NPE 2012)

Vision

To create a globally competitive electronics design and manufacturing industry to meet the country's needs and serve the international market

Salient Features of NPE 2019

- Create eco-system for globally competitive ESDM sector and to achieve a turnover of about USD 400billion by 2020: Promoting domestic manufacturing and export in the entire value-chain of ESDM.
- Provide incentives and support for manufacturing of core electronic components.

- Provide special package of incentives for mega projects which are extremely high-tech and entail huge investments, such as semiconductor facilities display fabrication, etc.
- Formulate suitable schemes and incentive mechanisms to encourage new units and expansion of existing units.
- Promote Industry-led R&D and innovation in all sub-sectors of electronics, including grass root level innovations and early stage Start-ups in emerging technology areas such as 5G, loT/ Sensors, Artificial Intelligence (Al), Machine Learning, Virtual Reality (VR), Drones, Robotics, Additive Manufacturing, Photonics, Nano-based devices, etc.
- Provide incentives and support for significantly enhancing availability of skilled manpower, including re-skilling. Special thrust on Fabless Chip Design Industry, Medical Electronic Devices Industry, Automotive Electronics Industry andPower Electronics for Mobility and Strategic Electronics Industry.
- Create Sovereign Patent Fund (SPF) to promote the development and acquisition of IPs in ESDM sector.
- Promote trusted electronics value chain initiatives to improve national cyber security profile.

Focus area	Provisions

Development of an eco-system for ESDM	• Fiscal and tax incentives to promote new and existing manufacturing units. • Leverage defence offsets for developing component manufacturing. • Extend Phased Manufacturing Programme (PMP) beyond mobiles. • Promote electronic goods falling under the ITA (I) category. • Electronic Manufacturing Clusters (EMC) scheme to be modified to support both greenfield and brownfield projects. • Import duty to be exempted for capital equipment (not available in India). However, promotion of the domestic capital goods industry in the long run. • Supply electronic units/ systems for national critical infrastructure from domestic industry with indigenous technology.
Promotion of electronics component manufacturing ecosystem	Incentives and manufacturing support for core electronic components (including bare PCBs, chip components, optical fibre, etc.) and components for the clean energy industry, such as lithium ion cells, fuel cells, solar cells, etc.
Industry led R&D and innovation	• Promote R&D in emerging areas, such as 5G, Internet of Things, Artificial Intelligence, augmented reality and machine learning. • Promote design and IPs, and create a sovereign patent fund. • Create and subsidise facilities for testing and prototyping innovations.

Preferential market access	State Governments to be encouraged to adopt the Public Procurement Order, 2017 for the procurement of electronic products
Export promotion	Attractive package of incentives envisaged to promote the export of electronics manufacturing.
Trusted electronics value chain and cyber security	• Promote trusted electronic value chain initiatives to improve national cyber security profile across national defence and critical national infrastructure. • Promote the use of secure chips, secure IT products and develop facilities for testing.
Development of core competencies in subsectors	The policy provides for support in terms of infrastructure, CoEs, export incentives, skill development and R&D to the following sub sectors: • Fabless chip design industry. • Medical electronics devices. • Automotive electronics. • Power electronics for mobility. • Strategic electronics industries such as defence, atomic energy, space, railways, etc.
Promotion of Electronic Manufacturing Services (EMS) Industry	• Promote the following EMS activities to create a requisite component manufacturing ecosystem. • Engineering and design of PCBs. • PCB assembly. Functional testing. • Maintenance services, such as warranty and repair services. • Product and component design

Ease of doing business	Invest India to be strengthened as a one-stop show to handle investor queries and handhold until final set-up
Focus on quality standards	• Standards to be developed based on global benchmarks. An institutional mechanism within MeitY to be set-up to ensure compliance with such standards. • Increase in lab infrastructure for testing, including cyber-security
Mega projects	• Incentivise mega projects, such as semiconductor facilities, photonics, display fabrication, etc., and give "infrastructure" status to these units. • Promote investments in setting up mega facilities abroad.

Implementation strategy and targets

Implementation strategy: The Policy will lead to the formulation of several schemes, initiatives, projects and measures for the development of ESDM sector in the country as per the roadmap envisaged therein.

Targets: Promote domestic manufacturing and export in the entire value-chain of ESDM for economic development to achieve a turnover of USD 400 billion (approximately INR 26,00,000 crore) by 2025. This will include targeted production of 1.0 billion (100 crore) mobile handsets by 2025, valued at USD 190 billion (approximately INR 13,00,000 crore), including 600 million (60 crore) mobile handsets valued at USD 110 billion (approximately INR 7,00,000 crore) for export.

Major Impact

The NPE 2019 when implemented will lead to formulation of several schemes, initiatives, projects, etc., in consultation with the concerned Ministries/ Departments, for the development of ESDM sector in the country. It will enable flow

of investment and technology, leading to higher value addition in the domestically manufactured electronic products, increased electronics hardware manufacturing in the country and their export, while generating substantial employment opportunities.