New National Policy on Electronics (NPE)

Ministry of Electronics and Information Technology

12th February, 2018
• National Policy on Electronics (NPE-2012) was Notified on 19th November, 2012.

• Vision of NPE 2012: To create a globally competitive ESDM industry to meet the country's needs and serve the international market.

• Under the aegis of NPE-2012, several schemes have been formulated and initiatives taken to promote entire value chain in ESDM.
Constraints and Challenges

- India is a signatory to the Information Technology Agreement (ITA-1) of WTO - Electronics is the first sector to face zero duty regime

  - BCD on the specified 217 tariff lines is zero%

  - Main categories covered: computers and peripherals, telecom products, electronic components, semiconductors, semiconductor manufacturing equipment and scientific instruments

  - India has not signed ITA-2

- Further, India has entered into Free Trade Agreements (FTA) with Thailand, ASEAN, Korea, Japan, etc., wherein import of electronic hardware from these countries is at preferential duty, lower than normal tariff rate
Constraints and Challenges (Cont…)

• Domestic electronics hardware manufacturing industry faces several disability factors:
  • high cost of power, finance and freight
  • inadequate infrastructure
  • lack of supply chain
  • high transaction cost
  • inverted tariff structure, etc.

These render the indigenous manufacturing uncompetitive.
<table>
<thead>
<tr>
<th>INFRASTRUCTURE</th>
<th>MARKET</th>
<th>INNOVATION</th>
<th>HR INITIATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Modified Special Incentive Package</td>
<td>• Preference to DMEPs in Government procurement</td>
<td>• Electronics Development Fund</td>
<td>• Skill Development</td>
</tr>
<tr>
<td>• Electronics Manufacturing Clusters &amp; Common Facility Centres</td>
<td>• Rationalization of Tariff Structure</td>
<td>• Technology Incubation and Development of Entrepreneurs (TIDE)</td>
<td>• SMDP - C2SD</td>
</tr>
<tr>
<td>• Semiconductor FABs</td>
<td>• Export Promotion</td>
<td>• Multiplier Grant Scheme (MGS)</td>
<td>• PhD Scheme</td>
</tr>
<tr>
<td>• Centres of Excellence</td>
<td>• Safety Standards</td>
<td>• Product Specific Initiatives - India Microprocessor, IndianCAS, NavIC, LINAC, and other R&amp;D initiatives</td>
<td>• Electronics &amp; ICT Academies</td>
</tr>
<tr>
<td>• Incubators</td>
<td>• PMP for promotion of mobile and its component manufacturing ecosystem</td>
<td>• IPR initiatives</td>
<td>• Sector Skill Councils</td>
</tr>
</tbody>
</table>

**Measures Taken – NPE 2012**

**HR INITIATIVES**

- Skill Development
- SMDP - C2SD
- PhD Scheme
- Electronics & ICT Academies
- Sector Skill Councils
Promotion of Robust Cellular mobile handsets
Manufacturing Eco-system in India

• Differential Excise Duty of 11.5% in 2015-16 and Phased Manufacturing Programme (PMP) gave impetus to manufacturing of cellular mobile phones and its components/accessories.

• Differential duty substituted with Basic Customs Duty after GST vide Department of Revenue notification dated 30.06.2017

• 115 new mobile phone manufacturing units and mobile components/ accessory manufacturing units started during the last two years, resulting in employment for more than 4 lakh persons

• Production Growth:
  • 2014-15 : 6 crore units valued at Rs.18,900 crore
  • 2015-16 : 11 crore units valued at Rs.54,000 crore
  • 2016-17 : 17.5 crore units valued at Rs.90,000 crore

Aiming for 50 crore units valued at Rs. 300,000 crore by 2019-20.
## Promotion of Robust Cellular mobile handsets Manufacturing Eco-system in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Sub-Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>(i) Charger/ Adapter, (ii) Battery Pack, (iii) Wired Headset</td>
</tr>
<tr>
<td></td>
<td><em>(Implemented)</em></td>
</tr>
<tr>
<td>2017-18</td>
<td>(iv) Mechanics, (v) Die Cut Parts, (vi) Microphone and Receiver,</td>
</tr>
<tr>
<td></td>
<td>(vii) Key Pad, (viii) USB Cable <em>( Implemented)</em></td>
</tr>
<tr>
<td>2018-19</td>
<td>(ix) Printed Circuit Board Assembly (PCBA), (x) Camera Module, (xi) Connectors</td>
</tr>
</tbody>
</table>
### Demand, Production, Import & Export in Electronics

(values in Billion USD)

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>% growth (YoY)</th>
<th>2016-17</th>
<th>% growth (YoY)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>29.2</td>
<td>37.4</td>
<td>28</td>
<td>49.5</td>
<td>32</td>
</tr>
<tr>
<td><strong>Import</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>37.5</td>
<td>40.9</td>
<td>9</td>
<td>42.8</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Export</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>6.2</td>
<td>5.9</td>
<td>-</td>
<td>5.9</td>
<td>-</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>60.5</td>
<td>72.4</td>
<td>19.6</td>
<td>86.4</td>
<td>19</td>
</tr>
</tbody>
</table>

Projected Demand of Electronics (Source : IESA- EY Report)
- USD 171 - 228 Billion by 2020
- USD 400 Billion by 2023-2024
Focus Areas identified for NPE 2018

1. Promote indigenous manufacturing in the entire value-chain of ESDM
2. Improve Ease-of-doing-business for Indian ESDM enterprises
3. Encourage Industry-led R&D and Innovation in all sub-sectors of Electronics
4. Support a comprehensive Start-up ecosystem in emerging technology areas
5. Enhance significantly availability of skilled manpower
6. Provide support for export-led growth
7. Develop core competencies in identified sub-sectors of Electronics sector
8. Take lead in the Electronics Manufacturing Services (EMS) segment
9. Provide support for highly capital intensive projects
9. Drive indigenization in the microchips (strategic & critical infrastructure sectors)
10. Encourage the State Governments to adopt the PMA policy
11. Promote research, innovation and industry for safe disposal of e-Waste
Participation of States – NPE 2018
1. Proactive participation from States

2. State level incentives for promotion of Electronics Manufacturing - Many States have already come up with their respective Policies

3. At least one flagship Technology Park in each State

4. Each State to identify Single Point of Contact for Investment Promotion in Electronics
States Partnership and way forward

1. Since it is proposed to do away with Capex Subsidy being provided under M-SIPS, suggestions are sought regarding other incentive mechanisms such as interest subsidy, credit default guarantee, etc., to encourage new units and expansion of existing units.

2. State Governments are requested to adopt the Public Procurement (Preference to Make in India) Order 2017, issued by DIPP, in procurement of electronic goods.

3. Encourage domestic manufacturing of electronic products and their inputs for significantly increasing value addition

Suggestions are invited from Participants.
States Partnership and way forward

4. Provide support for infrastructure development through formulation of a new scheme or suitable modifications in the existing Electronics Manufacturing Clusters (EMC) scheme, for both Greenfield and Brownfield manufacturing clusters.

5. Promote Eco-park in each State for processing e-Waste in environmental friendly manner in PPP mode to integrate formal and informal operators.

6. Development of an index for indicating status and growth of electronics manufacturing industry in the States and bring out a periodic report indicating ranking of States.

Suggestions are invited from Participants.
Salient Features – NPE 2018
1. Creating **eco-system** for globally competitive ESDM sector by incentivizing domestic manufacturing and compensating disabilities:

   i. Encourage domestic manufacturing of electronic products and their inputs for significantly increasing value addition by building a comprehensive ecosystem, covering the entire supply chain, through suitable **Phased Manufacturing Programme (PMP)** and/or fiscal interventions.

   ii. Devise suitable methods for **promotion of manufacturing of electronic goods** covered under the Information Technology Agreement (**ITA-1**) of WTO.

   iii. Provide support to Industry through **incentive mechanisms** such as **interest subsidy, credit default guarantee**, etc., in order to encourage new units and expansion of existing units.
iii. **Exempt the import duty on capital equipment**, to reduce capital expenditure for setting up/ expansion of existing units and address disabilities to a certain extent.

iv. Promote a forward looking and **stable tax regime**, including:
   - **Advance intimation** to the Industry to plan their investments in the form of phased manufacturing programmes in various segments of electronics.
   - **Income Tax Holiday** for 10 years in a block of 15 years, including exemption from Minimum Alternate Tax (MAT).
   - **Retention/ refund of** Central Goods and Services Tax (CGST).

v. Provide support for Assembly, Testing, Marking and Packaging (ATMP) lines for identified electronic components/ products.
vi. Impose of Cess on identified electronic goods to be considered to generate resources for promotion of certain critical sub-sectors of electronics manufacturing like Semiconductors/ Display Fabrication units.

vii. Provide support for infrastructure development through formulation of a new scheme or suitable modifications in the existing Electronics Manufacturing Clusters (EMC) scheme, for supporting both Greenfield and Brownfield manufacturing Clusters.

viii. Create institutional mechanism for implementation of various schemes/ programmes under the Policy.
2. Improve ease-of-doing-business by streamlining the processes for ESDM enterprises in the country:

- **Establish Standards setting body in MeitY** to develop standards for Electronics (including Fabless Industry), IT, e-Governance, etc.

- **Create/ upgrade Lab Infrastructure/ Capacity** for testing of electronics and IT goods including Cyber Security.

- Put in place **simplified clearance procedure** for import of goods required for R&D and design activity, including Start-ups and in emerging technology sectors.
3. Encouraging **Industry-led R&D and Innovation** in all sub-sectors of Electronics:

- Promote **path-breaking research**, grass root level innovations and early stage Start-ups in emerging technology areas such as 5G, IoT/ Sensors, Drones, Artificial Intelligence (AI), Machine Learning, Augmented Reality (AR) and Virtual Reality (VR), Gaming and Entertainment, having major economic potential, with a special focus on applying the outcomes, including frugal solutions, to solve real-life problems.

- Provide support for **setting up of Incubation Centres/ Centres of Excellence (CoE)** in the aforesaid areas.

- Provide **support for Start-ups in these emerging areas/ technologies**, from supporting the concept to development/ prototyping of products, including the complete value chain.
4. Provide support for significantly enhancing availability of **skilled manpower** in the ESDM sector:

- Set up a **National Institute of Design and Innovation in Electronics**

- Work closely with Private Sector, Universities and other Institutions of learning and to design programmes to ensure **availability of adequate skilled manpower** to the industry

- Provide support for **skill development for emerging areas** such as 5G, IoT/Sensors, Drones, Artificial Intelligence (AI), Machine Learning, Augmented Reality (AR) and Virtual Reality (VR), Gaming and Entertainment, at the faculty and student levels.
Export Promotion

5. Empower Indian ESDM exporters, by removing regulatory barriers and facilitating global market access and positioning:

• **Improve export incentive** under the Merchandize Export from India Scheme (MEIS) of Foreign Trade Policy.

• **Establish Free Trade Agreements (FTAs)** for electronic goods *with emerging/consumption based economies* that offer promising export markets for Indian electronic goods.

• Provide support for **Brand-building through Market Development Fund** to promote exports of electronic goods.
6. Promote the use of Secure Chips and Systems to reduce Cyber Security risks.

7. Provide special packages for Mega Projects such as Fabrication (FAB) units (Semiconductors, Display, LED, Solar), including infrastructure status for FAB units.

8. Develop core competencies in the sub-sectors of Electronics viz., Fabless Chip Design, Medical Electronics, Automotive Electronics, Power Electronics, Telecommunication Electronics, Surveillance Electronics and Strategic Electronics, etc.

10. Drive **indigenization in the microchips used by strategic and critical infrastructure sectors** viz., Defence, Space, Atomic Energy, Aviation, Power, etc., for design/production of such microchips.

11. Encourage the **State Governments to adopt** the Public Procurement (Preference to Make in India) Order 2017 (PPO 2017), in procurement of electronic goods.
12. Promote research, innovation and support to industry for green processes and sustainable e-waste management, including safe disposal of e-Waste in an environment friendly manner, development of e-waste recycling industry and adoption of best practices in e-waste management.

13. Promote Eco-park in each State for processing e-Waste in environmental friendly manner in PPP mode to integrate formal and informal operators.
13. Facilitate **warehousing of components and raw materials** to reduce the lead time and make them available just-in-time for electronics manufacturing/ fabless chip design units, including Start-ups.

14. Develop an **index for indicating status and growth of electronics manufacturing industry in the States** and bring out a periodic report indicating ranking of States.

15. Develop a **mechanism for National-level Market Research reports** on performance, impact assessment of Policy interventions for their continuation and/or mid-course correction, trends, emerging areas, etc., on a periodic basis, including models for successful innovation for all sub-sectors of Electronics.
Thank You
• PPO 2017 has been issued pursuant to Rule 153 (iii) of the General Financial Rules 2017 by DIPP on 15.06.2017

• The Order 2017 has been issued to encourage ‘Make in India’ and to promote manufacturing and production of goods and services in India

• The Order is applicable for procurement by Ministry/ Department/ attached/ subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act

• In furtherance of the PPO 2017, MeitY has issued Notification for 10 Electronic Products viz., (a) Desktop PCs, (b) Laptop PCs, (c) Tablet PCs, (d) Dot Matrix Printers, (e) Contact and Contactless Smart Cards, (f) LED Products, (g) Biometric Access Control/ Authentication Devices, (h) Biometric Finger Print Sensors, (i) Biometric Iris Sensors and (j) Servers

• Work to include more electronic products under PPO 2017 is underway
Major items where import has reduced

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Commodity</th>
<th>2015-16 (Million USD)</th>
<th>2016-17 (Million USD)</th>
<th>Difference in % (‘2016-17’-’2015-16’)/’2015-16’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobile Phones</td>
<td>5922.51</td>
<td>3739.95</td>
<td>-37%</td>
</tr>
<tr>
<td>2</td>
<td>Set Top Box for TV</td>
<td>642.90</td>
<td>367.37</td>
<td>-43%</td>
</tr>
<tr>
<td>3</td>
<td>Monitors</td>
<td>401.82</td>
<td>281.66</td>
<td>-15%</td>
</tr>
<tr>
<td>4</td>
<td>Personal Computers</td>
<td>2232.19</td>
<td>2148.75</td>
<td>-4%</td>
</tr>
<tr>
<td>5</td>
<td>Electric inverters</td>
<td>206.67</td>
<td>180.57</td>
<td>-13%</td>
</tr>
<tr>
<td>6</td>
<td>Printers and MFDs</td>
<td>83.51</td>
<td>59.13</td>
<td>-13%</td>
</tr>
<tr>
<td>7</td>
<td>Automatic Data Processing Machines</td>
<td>258.23</td>
<td>240.04</td>
<td>-3%</td>
</tr>
<tr>
<td>8</td>
<td>Video game consoles and machines</td>
<td>21.00</td>
<td>15.64</td>
<td>-26%</td>
</tr>
<tr>
<td>9</td>
<td>Audio-frequency electric amplifiers</td>
<td>20.72</td>
<td>16.41</td>
<td>-21%</td>
</tr>
<tr>
<td>10</td>
<td>Microwave ovens</td>
<td>57.28</td>
<td>53.13</td>
<td>-7%</td>
</tr>
</tbody>
</table>
## Major items where import has increased

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Commodity</th>
<th>2015-16 (Million USD)</th>
<th>2016-17 (Million USD)</th>
<th>Difference in % (‘2016-17’-’2015-16’)/’2015-16’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Base Station</td>
<td>303</td>
<td>991</td>
<td>227.06</td>
</tr>
<tr>
<td>2</td>
<td>Routers</td>
<td>268</td>
<td>478</td>
<td>78.36</td>
</tr>
<tr>
<td>3</td>
<td>Parts of telecom equipments</td>
<td>4497</td>
<td>6256</td>
<td>39.11</td>
</tr>
<tr>
<td>4</td>
<td>Solar cell and modules</td>
<td>2344</td>
<td>3196</td>
<td>36.35</td>
</tr>
<tr>
<td>5</td>
<td>Populated PCB</td>
<td>541</td>
<td>1181</td>
<td>118.30</td>
</tr>
<tr>
<td>6</td>
<td>Bare PCB</td>
<td>262</td>
<td>374</td>
<td>42.75</td>
</tr>
</tbody>
</table>