



भारत सरकार
विद्युत मंत्रालय
केन्द्रीय विद्युत प्राधिकरण
ई टी एंड आई प्रभाग

To,

All Stakeholders

(IEEMA / PSUs/Utilities/Manufactures and user industries)

Subject: Invitation for Comments/Suggestions on prioritization of identified Critical Imported Items and Support required for their Indigenous Development of such critical items- Reg.

The Central Electricity Authority (CEA) has prepared a draft list of critical items that are presently being imported, along with support required by manufacturers for the indigenization of these items. The list has been prepared in consultation with few stakeholders, including the Indian Electrical & Electronics Manufacturers' Association (IEEMA).

In this context, comments/suggestions/inputs are invited from all stakeholders, including the users in PSUs and other industries to decide on prioritization of items mentioned in the **enclosed list** (Annexure) of identified critical items or any **additional items which stakeholders consider as critical & support required for their indigenous development.**

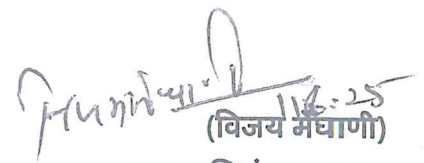
The comments/suggestions/inputs may also mention cost, volume required and percentage contribution of critical identified item in the total cost of the product/items. The purpose is to prioritize items which are more critical. It would be a great help, if any agency/stakeholder can share data about total quantity and/or value of import of this item during past three years.

Also, it would be better if desired support level can be clearly quantified in terms of percentage/ forms of financial incentives (interest subvention/grant) and subsidies so the total financial implication may be quantified and comprehensive proposal can be prepared based on criticality of item.

The inputs may be furnished at ce-rndcea@nic.in latest by **20th June 2025**.

यह के.वि. प्रा. के सक्षम अधिकारी अनुमोदन से प्रेषित है।

संलग्नक: यथोपरि।


(विजय मेघाणी)
मुख्य अभियंता (ET&I)

प्रतिलिपि:

- i. अध्यक्ष, के.वि. प्रा. के विशेष सहायक ।
- ii. सदस्य (योजना) के विशेष सहायक ।
- iii. CEA website

Annexure**List of critical items and support required for indigenous development of these items/components**

S. no	Name of the Critical items	support required by the manufacturers to promote local manufacturing	Country/ countries from where these items are primarily imported.	Key reasons for importing these items
1	Pipes for Gas Insulated Bus Ducts and Bus Bars (ID >300 mm)	Financial incentives/subsidies	China	a. Lack of domestic manufacturers, b. Product & Manufacturing Design, c. Machinery not available
2	Hollow Core Insulators for Gas-Air Bushings (For > 245 kV)	Financial incentives/subsidies	China	a. Lack of domestic manufacturers, b. Product & Manufacturing Design, Machinery not available
3	Insulating Spacers / Gas Partitions	Financial incentives/subsidies	Taiwan	a. Lack of domestic manufacturer b. Technology unavailability c. Manufacturing Specifications are unique and customized for each Manufacturer's technical specifications.
4	Voltage Transformers	Financial incentives/subsidies	China	a. Lack of domestic manufacturers b. Technology unavailability c. Know-How and Critical manufacturing process not available
5	Electronic components, Semiconductor devices such as IGBT, MOSFET, Thyristors,	a. Technology transfer from international partners b. Financial incentives/subs	China	a. Lack of domestic manufacturers b. Raw material/component shortage Cost competitiveness

	Magnetic cores, DC Capacitors etc.	idies - partially yes in the beginning and leave it free thereafter c. Policy and regulatory reforms not so much and no anti-dumping as it helps traders only d. Development of testing and certification facilities required in a very liberal manner.		c. Technology unavailability/ Other : Electronic components specially SMD, Different magnetics like Ferrite, Amorphous, Sandust types etc.
6	Up to 36 SS (Stainless Steel) tank for GIS.	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and certification facilities	China, Germany, Korea, Turkey, Spain and France	Raw material/component shortage, Cost competitiveness & Quality standards
7	Aluminium Zinc Sheet for fabrication. Up to 36 kV SF6 free Ring Main Unit (RMU) and GIS.	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and certification facilities	China, Germany, Korea, Turkey, Spain and France	Raw material/component, shortage & Quality standards
8	Oxygen Free Copper rods, bars, strips and sheets with a Vacuum interrupter minimum purity	a. Technology transfer from international partners b. Financial incentives/subsidies	China, Germany, Korea, Turkey, Spain and France	Technology unavailability

	of 99.995% and a maximum oxygen content of 5 ppm.	c. Policy and regulatory reforms d. Development of testing and certification facilities		
9	Shielded solid insulated Switchgear core components such as tank and bus bars.	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms Development of testing and certification facilities	China, Germany, Korea, Turkey, Spain and France	Technology unavailability
10	Super Capacitor	a. Technology transfer from international partners b. Financial incentives/Subsidies c. Policy and regulatory reforms	Korea, China	Lack of domestic manufacturers.
11	ELCAP (Electrolytic Capacitors)	a. Technology transfer from international partners b. Financial incentives/Subsidies c. Policy and regulatory reforms	Japan, Indonesia	Lack of domestic manufacturers.
12	Modules	a. Technology transfer from international partners b. Financial incentives/subsidies	Singapore	a. Lack of domestic manufacturers b. raw material c. component shortage Cost competitiveness d. Quality standards
13	PCB	a. Technology transfer from international partners b. Financial incentives/sub	Taiwan, China, Korea	a. Lack of domestic manufacturers b. raw material c. component shortage Cost competitiveness d. Quality standards

		sidies c. Policy and regulatory reforms		e. Technology unavailability
14	Epoxy raw material (Resin, Hardener), Liquid Silicone rubber, Bus bar insulation shrink tubing of high dielectric strength and insulation properties.	a. Encourage global OEMs to set-up facilities in India via PLI & export world wide b. Make testing / validation laboratories available in India by next 1 year meeting international IEC ISO standards at competitive rates & adequate capacity	Germany, Poland	a. Inadequate local capacity. b. Lack of Technology unavailability locally since some of these products are launched by our (ABB India Limited, Electrification Distribution solutions division, Nashik 422007) principles in Europe few year back in joint collaboration with such global suppliers present in Europe having their own IP.
15	Modular type Ethernet Switches (automatic data processing / communication switches) suitable for IEC communication protocol ex IEC61850, PLC Controllers (FRTU) with digital inputs and digital outputs	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and certification facilities	Canada, Germany	a. Lack of domestic manufacturers b. Technology unavailability
16	Aluminum Zinc coated steel sheets of non-skin passed, non-oiled, non-chromatid grade, 2 mm thickness	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and e. Certification facilities.	South Korea, China	a. Lack of domestic manufacturers b. Lack of cost competitiveness c. Technology unavailability
17	Permanent Magnet (NdFeB)	a. Technology transfer from	China	Lack of domestic manufacturers

	for actuators	b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.		
18	Electronics / Printed Circuit Boards Assembly	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.	Poland, Malaysia, Taiwan	a. Lack of domestic manufacturers b. Technology unavailability
19	Solid insulated / screened touch proof bus bars, adaptors of high die electric strength and insulation properties	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.	China	a. Lack of domestic manufacturers b. Technology unavailability
20	Ring Main Unit (RMU) motors with geared Mechanism with miniature gear train	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.	China, Thailand	a. Lack of domestic manufacturers b. Technology unavailability

21	Motors and VCB (Vacuum Circuit Breakers) mechanisms assembly with miniature gear train.	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.	China	a. Lack of domestic manufacturers b. Technology unavailability
22	Oxygen Free High Conductivity Copper Rods of very high precision, of flatness, ppm level < 5, Various diameters (Diameter 25 to 45 mm)	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and Certification facilities.	Thailand, Germany	a. Inadequate local capacity b. Technology unavailability locally since some of these products are launched by our (ABB India Limited, Electrification Distribution solutions division, Nashik 422007) principles in Europe few year back in joint collaboration with such global suppliers c. Supplier need high value capex to set-up consistent precise processes & long validation time due to critical technical specification from end application such as Vacuum Interrupters
23	Sulphur Hexafluoride gas SF6.	Lack of advanced technology High capital investment requirements	Norway, China	a. Lack of domestic manufacturers b. Technology unavailability
24	Magnet, Silver Alloys Contacts, Shunt	Technology transfer from international partners.	China	a. raw material b. component shortage c. Cost competitiveness d. Quality standards.
25	Automation for bobbin winding, testing & inspection assembly	a. Financial incentives/subsidies b. Policy and regulatory	CHINA: for automation UK: For Technical know-how /	a. Lack of domestic manufacturers b. raw material c. component shortage d. Cost competitiveness

	Assembly, line automation for latching relay assembly (for high volume). Ferrite magnet for rotary arm (part of latching relay) Electron Beam welded Cu + C151 Copper.	reforms: Protection of dumping by Chinese manufacturers at very low prices c. Development of testing and certification facilities: for testing related to IS15884 / UC2/UC3 testing & related costs	Patent	d. Quality standards e. Technology for automation unavailability.
26	Specialized magnetic core materials (e.g., H-class ferrite cores), High-precision injection molding tools, High-reliability contact materials (e.g., AgSnO2 sourced from Europe/Asia), Coil winding and automation machinery, Relay calibration and high-speed testing systems.	a. Financial incentives/subsidies (e.g., PLI scheme inclusion) b. Policy and regulatory reforms (e.g., anti-circumvention enforcement) c. Development of testing and certification facilities cost efficient.	China (both directly and indirectly via Vietnam and Indonesia)	It was imported from China due to not enough manufacturer available in India
27	Triple-layer extruder lines for 550 kV Drum Twisters 91 X 630 standing machines Poly-al applicator Corrugation aluminum line Aluminum extrusion line TR-XLPE (above 66 kV) (Dow - US)	a. Technology transfer from international partners b. Financial incentives/subsidies c. Policy and regulatory reforms d. Development of testing and certification facilities/ R&D set-up	Finland, England, Poland, France, Germany, China and the US.	a. Lack of domestic manufacturers b. raw material c. component shortage d. Quality standards e. Technology unavailability
28	XLPE from 66 kV to 220 kV SEMICON from 66 kV to 220 kV	a. Technology transfer from international partners	DOW (USA) BOREALIS (ABU)	a. Lack of domestic manufacturers, Only 1 approved make available in INDIA

		b. Financial incentives/subsidies/ Policy and regulatory reforms c. Development of testing and certification facilities.	DHABI) HANWHA (South Korea) LG (South Korea)	b. raw material/component shortage Cost competitiveness c. Quality standards d. Technology unavailability.
29	Total 128 Numbers of Rotor shaft required for HE Projects having unit size greater than 200 MW till 2031-32. For this the support required for indigenous development may be furnished.			
