GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3895
TO BE ANSWERED ON: 27.03.2026

INDIGENOUS DEVELOPMENTOF 30 KW WBG-BASED INTEGRATED DRIVE SYSTEM

3895. DR. SIKANDER KUMAR:

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

(a) whether the Ministry has launched an indigenously developed 30 kW Wide Band Gap (WBG) based Integrated Drive System, if so, the key technical advantages over traditional silicon-based EV powertrains;
(b) whether Government plan to leverage ₹40,000 crore allocation for the Electronics Components Manufacturing Scheme (ECMS) in current budget to support the mass production of these integrated drive systems by domestic Micro, Small and Medium Enterprises (MSMEs); and
(c) the measures being taken to extend the ECMS to support MSMEs in Parwanoo and Baddi for the production of WBG-compatible power electronics?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI JITIN PRASADA)

(a) to (c): To promote indigenous development of power electronics technologies, the Government of India has been implementing the National Mission on Power Electronics Technology (NaMPET) programme initiated in 2019.

The key focus areas of the programme include Wide Band Gap (WBG) based power converters, electric vehicle powertrain systems, renewable energy, smart energy infrastructure, high-voltage power converters, and customized systems for strategic sectors such as defence and railways.

The technologies have been developed in these areas and transferred to industries for scaling up indigenous innovations.

Under this programme, MeitY has launched an indigenously developed 30 kW Wide Band Gap (WBG) based Integrated Drive System (IDS) for Electric Vehicles (EVs). The system has been jointly developed by C-DAC, IIT Madras and industry partners.

The key technical advantages of Wide Band Gap (WBG) based Silicon Carbide (SiC) devices over conventional silicon-based EV powertrains include higher efficiency, compact and reduced battery energy consumption, which helps to extend the vehicle driving range.

Electronics Components Manufacturing Scheme (ECMS)
Government launched ECMS to further deepen the supply chain ecosystem and develop robust electronics component ecosystem in the country.

It aims to attract investments across key components such as Printed Circuit Boards (PCBs), passive components, electro-mechanical components, sub-assemblies, camera modules, optical transceivers, and capital goods required for electronics manufacturing.

The scheme provides financial incentives to the industries across the country for production of these components, base material and capital equipments.

The scheme has received overwhelming response from industry so far. Against the investment target of Rs 59,350 crores, investment commitments of Rs 1.15 lakh crores have been received.

Taking cognizance of the strong industry response, in Budget 2026, the Government enhanced the budgetary outlay of the scheme from Rs 22,919 crores to Rs 40,000 crores.

Till date, 46 applications have been approved across 11 states under the ECMS scheme.

These components and sub-assemblies will have cross-sectoral applications such as consumer electronics, telecom, automotive electronics (including EVs), strategic electronics, medical electronics, industrial electronics etc.

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