LOK SABHA
STARRED QUESTION NO. *463
TO BE ANSWERED ON 03rd APRIL 2025

CLEAN ENERGY FOR ECONOMIC GROWTH

***463. SHRI SHRIRANG APPA CHANDU BARNE:**
SMT. BHARTI PARDHI:

पेट्रोलियम और प्राकृतिक गैस मंत्री

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether clean energy is projected to be a key factor in India's economic development and in addressing the needs of its population, if so, the details thereof;
(b) whether the Government has been pitching for clean energy cooking fuel innovations and extended open invitation to the entrepreneurs for the said purpose;
(c) if so, the details thereof;
(d) the details of the existing gas-based economy of the country as on date along with the details of targets, if any, fixed by the Government for its future expansion;
(e) the details of corrective steps taken/being taken by the Government for developing nation wide gas grid and other infrastructure required for achieving such targets; and
(f) the details of expenditure likely to be incurred for developing such national assets along with the details of funds allocated and released so far by the Government in this regard?

ANSWER

पेट्रोलियम और प्राकृतिक गैस मंत्री

(श्री हरदीप सिंह पुरी)

MINISTER OF PETROLEUM AND NATURAL GAS
(SHRI HARDEEP SINGH PURI)

(a) to (f) A statement is laid on the Table of the House

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) IN RESPECT OF LOK SABHA STARRED QUESTION NO. *463 TO BE ANSWERED ON 03.04.2025 REGARDING "CLEAN ENERGY FOR ECONOMIC GROWTH" ASKED BY SHRI SHRIRANG APPA CHANDU BARNE AND SMT BHARTI PARDHI

(a) Yes, Clean energy occupies a pivotal place in Government's efforts for meeting increasing energy demand. As per Energy Institute's Statistical Review of World Energy 2024, India currently consumes about 6.3% of World Primary Energy (2023) which would reach 12.5% of the World's Primary Energy by 2050. Further, as per BP Energy Outlook, 2023, Renewable energy consumption will grow at an average of 4-6% a year in India and it will become the major source of primary energy for India in 2050.

India's energy demand is increasing continuously due to sustained economic growth over the last many years. India currently has an average GDP growth rate of 6.5% with a USD 4 trillion economy. As per the IEA's World Energy Outlook, 2024, India will have the highest increase in energy demand than any other country over the next decade mainly because of its size and the scale of rising demand from all sectors. Industrialisation, urbanisation, enhanced transportation needs, high capital expenditure for creation of infrastructure and improvements in standard of living are contributing to the rapid increase in energy demand.

At the 26th session of Conference of the Parties (COP 26), Glasgow, in November 2021, Hon'ble Prime Minister presented five nectar elements (Panchamrit) of India's climate action which *inter-alia* included achieving 500GW of Non-fossil energy capacity by 2030, 50 per cent of its energy requirements from renewable energy by 2030 and achieving the target of net zero emissions by 2070. India is the first G20 country to meet its Paris commitments. As on 28.02.2025, a total of 222.86 GW non-fossil power capacity has been installed against a target of 500 GW in the country which includes 102.57 GW solar power, 48.59 GW wind power, 11.45 GW bio-power, 52.07 GW hydro power and 8.18 GW nuclear power. Further, the share of non-fossil power in the total installed electricity capacity in the country has increased from 31.53% in 2014 to 47.37% as of now.

India's strong commitment to clean energy is also being propelled by Ethanol Blending Petrol Programme, Pradhan Mantri JI-VAN scheme, Compressed Bio Gas (CBG) ecosystem, National Hydrogen Mission, etc.

As a green fuel, Ethanol supports the environmental sustainability efforts of the Government. Government have been promoting blending of ethanol in petrol under the Ethanol Blended Petrol (EBP) Programme to reduce import dependence on crude oil while saving foreign exchange and promote domestic agriculture sector. National Policy on Biofuels – 2018, as amended in 2022, inter-alia, advanced the target of 20% blending of ethanol in petrol to ESY 2025-26 from 2030. Interventions by the Government have led to increased ethanol blending with petrol from 38 crore litres in ESY 2013-14 to 707 crore litres in ESY 2023-24. In February 2025, ethanol blending of 19.68% has already been achieved.

In 2019, the Government notified the Pradhan Mantri JI-VAN (Jaiv Indhan – Vatavaran Anukool fasal awashesh Nivaran) Yojana 2019, amended in 2024, to provide financial support for setting

up Advanced Biofuels projects in the country using lignocellulosic biomass and other renewable feedstock. Further, towards decarbonizing of the aviation sector, Government has approved 1% Sustainable Aviation Fuel (SAF) indicative blending target in 2027 (initially for International flights).

To promote CBG, Government have initiated various schemes like Sustainable Alternative Towards Affordable Transportation (SATAT), financial assistance for procurement of Biomass Aggregation Machinery (BAM) and scheme for the development of pipeline infrastructure (DPI) for transportation of CBG into the City Gas Distribution (CGD) network. With these initiatives, 94 CBG plants, which include a major share by private entrepreneurs, with production capacity of about 650 TPD (tonnes per day) have already been commissioned and another 75 CBG plants with production capacity of about 550 TPD are in different stages of construction.

The Ministry of New and Renewable Energy is implementing the National Green Hydrogen Mission, with an objective to make India a global hub of production, usage, and export of Green Hydrogen and its derivatives. Government have launched several initiatives under the Mission, including scheme guidelines for incentive schemes for production of Green Hydrogen and electrolyser manufacturing under the Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme.

(b) to (c) Government have promoted the use of LPG and Piped Natural Gas (PNG) for clean domestic cooking fuel. To promote LPG as a clean cooking fuel, Pradhan Mantri Ujjwala Yojana (PMUY) was launched in May 2016, to provide deposit free LPG connection to adult women from poor households. As on 01.03.2025, there are more than 10.33 crore LPG connections released under PMUY scheme and about 33 crore LPG active domestic customers. As a result of various initiatives, LPG coverage in the country has improved from 62% in April 2016 to near saturation as of now. Piped Natural Gas (PNG) is being supplied through pipeline for domestic cooking and as of January 2025, the authorized entities have provided 1.44 crore PNG Domestic (PNG (D)) connections. With an aim to further create environmentally sustainable cooking solutions, OMCs are also working on innovative solutions and encouraging start ups to provide new age solutions like Ethanol and Solar cook stoves.

(d) to (f) The Government have targeted to increase the share of natural gas in the Primary Energy Mix from the current level of 6% to 15% by 2030. Various steps taken by the Government in this direction include expansion of National Gas Grid Pipeline & City Gas Distribution (CGD) network, setting up of Liquefied Natural Gas (LNG) Terminals, allocation of domestic gas to Compressed Natural Gas (Transport) / Piped Natural Gas (Domestic) CNG(T)/PNG(D) as priority sector, allowing marketing and pricing freedom with a ceiling price to gas produced from high pressure/high temperature areas, deep water & ultra-deep water and from coal seams etc.

After completion of 12/12A CGD bidding round Petroleum and Natural Gas Regulatory Board (PNGRB) has authorized entities for the development of CGD network in 307 Geographical Areas (GAs), covering almost 100% of the mainland area for the development of CGD network across the country. As per Minimum Work Programme target, authorized entities have to provide approx. 12.6 crore PNG connections and establish 18,336 CNG stations by 2034. As on January 25, the authorized entities have established 7594 CNG stations.

With the aim to create a National Gas Grid (One Nation, One Gas Grid) and increase the availability of natural gas across the country, Petroleum and Natural Gas Regulatory Board (PNGRB) has authorised approximately 33,475 km natural gas pipeline network across the country out of which 25,124 km of natural gas pipeline including spur lines, tie-in connectivity,

Sub-Transmission Pipelines (STPL) and dedicated pipelines are already operational and a total of 10,676 km length of pipelines are under various stages of construction. These pipelines are constructed by the various project proponents from their own funds keeping in view the technical and commercial feasibility following the various regulatory approvals. Further, Government have also approved (September 2016) Viability Gap Funding of 40% Capital Grant (Rs 5,176 crore) for Jagdishpur-Haldia/Bokaro-Dhamra Natural Gas Pipeline (JHBDPL) project and 60% (Rs 5559 crore) VGF for North East Gas Grid (NEGG) project (January 2020), as the critical constituents of the National Gas Grid.

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