

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2475
TO BE ANSWERED ON 16.03.2017**

SOURCES OF POWER GENERATION

†2475. SHRI ANANTKUMAR HEGDE:

**Will the Minister of POWER
be pleased to state:**

- (a) whether approximately six sources are utilised to generate power in the country;**
- (b) if so, the facts in this regard and the sources currently being used in the country to generate power;**
- (c) whether the Government has taken any estimate of the annual average quantum of electricity generated from each source;**
- (d) if so, the quantum of electricity generated from each source during the year 2016; and**
- (e) the average cost of generation of electricity from each source during the years 2014, 2015 and 2016?**

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL, NEW & RENEWABLE ENERGY AND MINES**

(SHRI PIYUSH GOYAL)

(a) & (b) : Approximately six sources are utilized to generate power in the country through Conventional sources and five sources of energy are being used for Renewable energy generation. The sources currently being used in the country to generate power from conventional resources are coal, water, natural gas, nuclear, lignite and diesel and sources for renewables are wind, solar, biomass, bagasse and waste to energy (Municipal and Industrial waste).

(c) & (d) : The estimate of the annual average quantum of electricity generated and the quantum of actual generation from each Conventional source during the years 2015-16 and 2016-17 (up to Feb.'17) are given at Annex-I. The quantum of electricity actually generated from each Renewable source during the years 2015-16 and 2016-17 (up to Jan.'17) are given at Annex-II.

(e) : The estimated value of weighted average cost of generation (rate of sale of power) from the year 2013-14 to 2015-16 is given at Annex-III.

ANNEX-I

ANNEX REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO.2475 TO BE ANSWERED IN THE LOK SABHA ON 16.03.2017.

The source-wise figures of generation in Billion Units (BU) from Conventional Sources in the country during the year 2015-16 and the period April, 2016 – February, 2017 are given as under:

Source	Estimate during 2015-16 (BU)	Actual Gen. during 2015-16 (BU)	Estimate (Program) during 2016-17 (upto-Feb. 17)* (BU)	Actual Gen. during 2016-17 (upto-Feb. 17)* (BU)
COAL	888.175	862.015	839.127	826.911
HYDRO	132.800	126.620	129.784	119.915
NATURAL GAS	40.832	47.122	36.701	44.919
NUCLEAR	38.000	37.413	36.427	34.136
LIGNITE	36.722	34.244	34.182	31.618
DIESEL	0.971	0.405	0.215	0.244
Grand Total	1137.500	1107.822	1076.436	1057.745

* Tentative

NOTE :- 1. Generation includes generation from plants 25 MW & above capacity from conventional sources (thermal, hydro and nuclear) only.

2. Generation does not include Renewable Energy Sources (RES) generation.

ANNEX-II

ANNEX REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO.2475 TO BE ANSWERED IN THE LOK SABHA ON 16.03.2017.

The source-wise figures of generation in Billion Units (BU) from Renewable Sources in the country during the year 2015-16 and the period April, 2016 – January, 2017 are given as under:

Renewable Source	Generation during 2015-16 (BU)	Generation during April,2016-January,2017 (BU)
Wind	33.03	41.16
Solar	7.45	10.56
Biomass	3.73	3.44
Bagasse	12.95	7.43
Small Hydro Power*	8.35	7.20
Waste to Energy (Municipal and Industrial waste)	0.27	0.34
Total :	65.78	70.13

* Station capacity upto 25 MW

ANNEX-III

ANNEX REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 2475 TO BE ANSWERED IN THE LOK SABHA ON 16.03.2017.

The estimated value of weighted average cost of generation (rate of sale of power) as per CEA from the year 2013-14 to 2015-16 is as under:

MODE OF GENERATION	Weighted Average Rate of Sale of Power in paise/kWh		
	2013-14	2014-15	2015-16
ALL INDIA HYDRO	232.98	242.09	279.27
ALL INDIA THERMAL	336.43	340.43	339.17
ALL INDIA NUCLEAR	279.21	275.91	NA*
ALL INDIA (ALL CATEGORY)	321.72	327.85	332.51

* Not available.
