

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

STARRED QUESTION NO:445

ANSWERED ON:10.12.2010

COST OF POWER GENERATION

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Will the Minister of POWER be pleased to state:

- (a) the per capita availability and consumption of power in the country during the last three years and the current year, State-wise;
- (b) the steps taken by the Government to increase the per capita availability of power and minimize the power consumption;
- (c) whether the Government has made any assessment of the per megawatt power generation cost of the public and the private sector power projects;
- (d) if so, the details thereof;
- (e) whether steps have been taken to reduce generation cost of power; and
- (f) if so, the details and the outcome thereof?

Answer

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE)

(a) to (f) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) OF STARRED QUESTION NO. 445 TO BE ANSWERED IN THE LOK SABHA ON 10.12.2010 REGARDING COST OF POWER GENERATION.

- (a): The latest available figures of state-wise per capita consumption/availability of power in the country during the last three years (2006-07 to 2008-09) are given at Annex.
- (b): The steps taken by the Government to increase availability of power in the country which will in turn lead to enhancement in per-capita availability of power include :
 - (i) Quantum jump in capacity addition during the 11th Plan: As compared to 21,180 MW power generation capacity added during the 10th Plan, projects aggregating 62,374 MW from Conventional Energy Sources are targeted for commissioning during the 11th Plan. Generation projects aggregating approximately 29,361 MW capacity have been commissioned during the 11th Plan (up to 15th November, 2010).
 - (ii) Power generation capacity of about 14,000 MW is planned to be added from renewable energy sources.
 - (iii) Harnessing surplus captive power into the grid. A capacity of 12,000 MW of captive power is likely to be added to the system during 11th Plan.
 - (iv) Renovation, Modernization & Life Extension of old and inefficient generation units.
 - (v) Development of an extensive network of high voltage transmission commensurate with the capacity addition programme and new inter- regional transmission capacities through the development of a National Grid for transfer of power from surplus to deficit regions.
 - (vi) A number of Joint Ventures have been / are being set up in the country for manufacture of super critical steam generators and turbine generators. Total manufacturing capacity of about 11,000 MW per year for steam generators and 12,000 MW per year for turbine generators is envisaged through these Joint Ventures.

Several initiatives have been taken by the Government for energy conservation and efficiency, particularly demand side management. It is estimated that these initiatives will result in an avoided capacity of 10,000 MW in the 11th Plan. Against this target an avoided capacity of 4,995 MW has been achieved upto 31st March, 2010. The ongoing/proposed schemes include :

- (i) Bachat Lamp Yojana to promote energy efficient and high quality CFLs as replacement for incandescent bulbs in households.

(ii) Standard and Labeling (S&L) Scheme targets high energy end use equipments and appliances to lay down minimum energy performance standards.

(iii) Energy Conservation Building Code (ECBC) that sets minimum energy performance standards for new commercial buildings.

(iv) Agricultural and Municipal DSM targeting replacement of inefficient pump sets, street lighting, etc in the agricultural and municipal areas.

(v) Energy efficiency in Small and Medium Enterprises targeting 25 high energy consuming clusters to promote energy efficiency.

(vi) State Energy Conservation Fund (SECF) to ensure sustainability of energy efficiency implementation at the state level.

(vii) Awareness campaign on Energy Conservation to create awareness among the general public on the efficiency and virtues of adopting habit for energy conservation.

(c) & (d) : Per Megawatt cost of power projects depends on a number of factors such as category of plant (thermal/hydro/nuclear), type of plant (pit-head/load centre thermal plant, run-of-the-river/storage hydro plant), fuel used (domestic coal/imported coal/gas), size of the plant, technology, source of supply of major power plant equipment, geographical site conditions, etc. Based on information available with CEA, the present estimated per megawatt cost of coal based, hydro and nuclear power projects is of the order of ` 5.5 – 6.0 crore per megawatt, ` 7 – 7.5 crore per megawatt and approximately ` 7 – 8 crore per megawatt respectively.

(e) & (f) : The steps taken by the Government to reduce generation cost of power mainly include procurement of power on competitive bidding basis, implementation of Ultra Mega Power Projects and bulk ordering of units to reap benefits of economies of scale, income tax holidays for first ten (10) years from the date of commercial operation of the project, custom duty exemption under mega power policy, renovation, modernization, life extension and upgradation of old and inefficient generating units.