

Investment through non-conventional energy resources

643. SHRIMATI SHOBHANA BHARTIA:
SHRIVIJAY J. DARDA:

Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether his Ministry is considering an attractive investment worth Rs. 12,500 crores every year to add 2500 MW power through non-conventional resources;

(b) whether his Ministry is spearheading drive to attract investment both from India and abroad;

(c) whether his Ministry is also approaching Finance Ministry with the proposal for certain incentives in addition to the existing sops; and

(d) if so, the steps taken by Government to attract more Indian and Foreign Investment in this sector?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI VILAS MUTTEMWAR):

(a) During the first four years of the Tenth Plan (2002-06) 4630 MW of renewable power capacity has been established at an estimated cost of Rs. 18,500 crore at an annual average rate of Rs. 4630 crore.

(b) to (d) With the existing policy the Tenth Plan aim for renewable power of 3075 MW has already been exceeded with the bulk of investment coming from the private sector. Rationalisation of fiscal and other incentives is an ongoing process. Further, 100 per cent Foreign Direct Investment is permissible under the automatic approval route.

Waste-based and wind-based energy projects

644. SHRI BALAVANT ALIAS BALAPTE:
SHRI SHREEGOPAL VYAS:

Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the number of waste-based and wind-based energy projects established in each State with Central assistance as on date, separately;

(b) the quantum of energy generated by these projects, State-wise;

(c) whether some State Governments have forwarded proposals in this regard;

(d) if so, the details thereof and the action taken by Government thereon;

(e) the quantum of assistance provided by Government to each State during the last three years;

(f) whether any external assistance has been received for these projects during the last three years; and

(g) if so, the details thereof, year-wise and State-wise?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI VILAS MUTTEMWAR):

(a) A total of 29 Waste-to-Energy Projects have been set up with Central Financial Assistance under the Waste-to-Energy Programme. Central Financial Assistance (CFA) is provided for setting up of limited number of demonstration wind power projects for opening up of new sites. A total of 36 demonstration projects, aggregating to 70.9 MW installed capacity, have been set up so far in nine States with Central Financial Assistance. State-wise information is given in Statement-I (See below). Moreover, a total wind power capacity of about 5350 MW has been installed in the country so far as commercial projects through private investments.

(b) The State-wise information on the quantum of energy generated by the above projects is given in Statement-II (See below).

(c) and (d) Three proposals from Andhra Pradesh, two from Uttar Pradesh, two from Punjab and one from Maharashtra for recovery of energy from industrial wastes were forwarded by the respective State Governments. The projects aggregating to 7.89 MW capacity have been sanctioned by Ministry of Non-Conventional Energy Sources and are under implementation.

Wind power projects are mostly set up as commercial projects through private investments at potential windy sites and such projects are cleared by the respective State Nodal Agencies/State Electricity Boards.

(e) The State-wise details of Financial Assistance provided by the Ministry during the last three years for setting up of projects for the recovery of energy from urban and industrial wastes and demonstration wind power projects are given in Statement-III (See below).

(0 and (g) External Financial Assistance of Rs. 4.01 crore has been received under United Nations Development Programme (UNDP)/Global Environment Facility (GEF) assisted project on Development of High Rate Biomethanation Processes. Information on State-wise and year-wise support received from UNDP/GEF is given at Statement-IV.

Statement-I

State-wise number of energy projects set up in the country with central financial assistance

(a) Urban and Industrial Wastes to Energy Projects:

| Sl.No. | State | Projects set up (No.) |
|--------|----------------|-----------------------|
| 1. | Andhra Pradesh | 7 |
| 2. | Gujarat | 3 |
| 3. | Karnataka | 2 |
| 4. | Madhya Pradesh | 2 |
| 5. | Maharashtra | 2 |
| 6. | Orissa | 1 |
| 7. | Punjab | 2 |
| 8. | Tamil Nadu | 7 |
| 9. | Uttar Pradesh | 3 |
| TOTAL: | | 29 |

(b) Demonstration Wind Power Projects:

| Sl.No. | State | Projects set up (No.) |
|--------|----------------|-----------------------|
| 1 | Andhra Pradesh | 4 |
| 2 | Gujarat | 7 |
| 3 | Karnataka | 4 |
| 4 | Kerala | 2 |
| 5 | Madhya Pradesh | 1 |
| 6 | Maharashtra | 6 |
| 7 | Rajasthan | 3 |
| 8 | Tamil Nadu | 8 |
| 9 | West Bengal | 1 |
| TOTAL: | | 36 |

[31 July, 2006]

RAJYA SABHA

Statement-II

State-wise quantum of power generated from urban and industrial waste to energy and wind power projects

(a) 'Urban and Industrial Wastes to Energy Projects:

| | | Million units of electricity (kWh) |
|--------|----------------|------------------------------------|
| Sl.No. | State | Total |
| 1. | Andhra Pradesh | 263.23 |
| 2. | Gujarat | 65.70 |
| 3. | Karnataka | 26.28 |
| 4. | Madhya Pradesh | 70.95 |
| 5. | Maharashtra | 21.90 |
| 6. | Punjab | 4.38 |
| 7. | Tamil Nadu | 2.19 |
| 8. | Uttar Pradesh | 61.32 |
| TOTAL: | | 515.95 |

(b) #Wind Power Projects:

| | | Million units of electricity (kWh) |
|--------|----------------|------------------------------------|
| Sl.No. | State | Total |
| 1. | Andhra Pradesh | 1739.51 |
| 2. | Gujarat | 1613.04 |
| 3. | Karnataka | 2290.95 |
| 4. | Kerala | 15.86 |
| 5. | Madhya Pradesh | 237.95 |
| 6. | Maharashtra | 3227.34 |
| 7. | Rajasthan | 93.25 |
| 8. | Tamil Nadu | 15381.13 |
| 9. | West Bengal | 1.65 |
| TOTAL: | | 24600.68 |

* = estimated generation

= including demonstration wind power projects

Statement-III

Details of central financial assistance provided by the Ministry to various States during the last three years (2003-04, 2004-05, 2005-06; for setting up projects based on urban and Industrial wastes and wind energy

(a) Urban and Industrial Wastes:

| | | (Rs. in lakhs) |
|--------|----------------|------------------------------|
| Sl.No. | State | Central Financial Assistance |
| 1. | Andhra Pradesh | 168.48 |
| 2. | Gujarat | 2.15 |
| 3. | Delhi | 72.59 |
| 4. | Jharkhand | 8.89 |
| 5. | Maharashtra | 2.75 |
| 6. | Tamil Nadu | 693.70 |
| 7. | Uttar Pradesh | 1.44 |
| 8. | Uttaranchal | 10.00 |
| TOTAL: | | 960.00 |

(b) Demonstration Wind Power Projects:

| | | (Rs. in lakhs) |
|--------|----------------|------------------------------|
| Sl.No. | State | Central Financial Assistance |
| 1. | Andhra Pradesh | 420.00 |
| 2. | Karnataka | 733.00 |
| 3. | Maharashtra | 35.00 |
| 4. | West Bengal | 48.00 |
| TOTAL: | | 1236.00 |

Statement-IV

State-wise and year-wise information on external Financial Assistance received for energy projects based on urban and industrial wastes

| (Rs. in lakhs) | | | | |
|----------------|----------------|--------------------------------------|---------|---------|
| SI. No. | State | 2003-04 | 2004-05 | 2005-06 |
| | | Total Assistance in last three years | | |
| 1. | Andhra Pradesh | 37.93 | 30.34 | — |
| 2. | Gujarat | — | 19.69 | — |
| 3. | Punjab | 212.09 | — | — |
| 4. | Tamil Nadu | — | 100.90 | — |
| TOTAL | | 250.02 | 150.93 | — |

Research projects in the field of renewable energy sources

645. SHRI SANJAY RAUT: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the number and details of research projects submitted in Government's Patent Office particularly in the field of renewable energy sources in the country;

(b) the salient features thereof; and

(c) the steps taken or proposed to be taken by Government for the encouragement to the research projects in the country?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI VILAS MUTTEMWAR): (a) and (b) Research projects are not required to be submitted to the Patent Office as only applications for obtaining patents for innovations are required to be filed. Patent applications have been filed in the areas of solar photovoltaics, solar thermal, biomass production, biomass gasification, sensor-less torque control device of an induction generator of a wind turbine, hydrogen storage and fuel cells.

(c) The Ministry of Non-conventional Energy Sources has been supporting R&D in new and renewable energy technologies in the country.