units have been installed so far in Attappady, Malampuzha, Moovattupuzha areas as well as tribal colonies in Trivandrum and Cannanore districts. An additional units are under installation. The ANERT has proposed the installation of 100 more such lighting units during 1987-88. cost of a solar lighting unit depends on several factors such as the number of hours of operation needed daily, type of battery used, type of lamp used, etc. Typical costs vary from Rs. 9,000 to Rs. 15,000 per system.

# Oll and Gas Finds in the Western Offshore Region

500. SHRI MULLAPPALLY RAMA-CHANDRAN: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state :

- (a) the details of the discovery of oil and gas in the western offshore region;
- (b) how many prospects have been identified and in how many drilling activities have commenced; and
- (c) whether efforts have been made to determine the approximate total quantity of oil gas that is likely to be found in this region and if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHMA DUTT): (a) to (c). Till date, hydrocarbons have been discovered in 38 structures in the Western offshore region as under:

Basin	Oil	Gas
Kutch-Saurashtra	1	
Bombay Offshore	25	12
Total	26	12

prospects have 173 possible identified, of which 91 have been drilled and one is presently under drilling.

As on 1-1-87, a total of 9570 MMt of oil and oil equivalent of gas resources have been prognosticated in this region.

#### Long Term National Power Plan

501. SHRIMATI JAYANTI PAT-NAIK: Will the Minister of ENERGY be pleased to state:

- (a) whether Government have formulated a long term national power plan:
- (b) if so, the period of that long term plan;
- (c) the recommendations or the suggestions made in that national power plan; and

#### (d) the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY ((SHRIMATI SUSHILA ROHTAGI): (a) to (d). A longterm power plan has been prepared by the Central Electricity Authority for the period upto 2000 AD. The plan envisages capacity addition about 48,000 MW and about 62,000 MW during the Eighth and Ninth Five Year Plan periods respectively. It has also been estimated that about Rs. 2,00,000 crores would be required for implementing the above programme alongwith the matching transmission and distribution facilities and including funds for advance action on schemes which will give benefits beyond the Ninth Plan period.

## Setting Up of Wind Power and Photovoltaic Solar Generators

- 502. SHRIMATI JAYANTI PAT-NAIK: Will the Minister of ENERGY be pleased to state:
- (a) whether Government have a proposal to set up wind power plants and photovoltaic solar generators in a big way; and
- (b) If so, the details of the programme worked out for that purpose?

THE MINISTER OF ENERGY (SHRI VASANT SATHE): (a) Yes, Sir.

(b) A Statement is given below.

#### Statement

According to preliminary estimates there is significant potential for wind power generation in the country. The Deptt. of Non-Conventional Energy Sources has started establishing wind farms and so far an aggre-

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gate capacity of 3.63 MW at five locations in the States of Gujarat, Tamil Nadu, Orissa and Maharashtra has been established. Over 85 lakh units of electricity have been fed so far into the respective State grids since the commissioning of these projects in Several more projects are underway 1986. and an installed capacity of 10 MW isexpected to be commissioned by the end of the current financial year. An installed capacity of 25 MW is planned in the Seventh Plan. A larger capacity could be established if sufficient financial resources are made available. Discussions are also in progress for taking up large wind power projects through bilateral assistance.

The Department of Non-Conventional Energy Sources is implementing a nationwide programme of demonstration of various solar photovoltaic systems for water pumping, lighting in streets and homes and at community facilities, Television, charging, etc. The street lighting programme is being implemented mainly through the Rural Electrification Corporation and State Electricity Boards. Over 1000 Un-electrified villages have been provided with PV street lights and other community facilities. Small solar photovoltaic power plants have also been set up in villages in Andhra Pradesh, Goa, Mizoram, Tripura and Uttar Pradesh. Such units provide power not only for street lighting but also for domestic lighting and community television. Two centralised photovoltaic power plants in the range of 20-25 KW peak are likely to be set up by the end of March, 1988. Photovoltaic power systems for rural telephone exchanges in Karnataka and Orissa and for signalling and telecommunication purposes are also being set up. A microwave repeater station in Uttar Pradesh is likely to be powered by a photovoltaic unit. A few Photovoltaic deepwell water pumping systems have been installed in Andhra Pradesh, Maharashtra, Karnataka and Rajasthan. A programme involving these and other applications of photovoltaic is under implementation as part of the Department's Seventh Plan programmes.

Allocation of Rice, Wheat, Edible Oils, Kerosene, etc. to States Affected by Drought

503. SHRIMATI JAYANTI PATNAIK: Will the Minister of FOOD AND CIVIL

SUPPLIES be pleased to state:

- (a) whether Government have increased the allocation of rice, wheat, palmolein, kerosene oil and other essential commodities to the drought affected States out of the Central pool during 1987-88 to meet the drought situation; and
- (b) if so, the details of allocation made to different States?

THE MINISTER OF PARLIAMENTARY AFFAIRS AND MINISTER OF FOOD AND CIVIL SUPPLIES (SHRIH.K.L. BHAGAT): (a) and (b). Statements I to IV indicating allocation of rice, wheat, kerosene oil and edible oils for the period 1987-88 (upto Nov. '87) are given below.

(See columns 199—214).

Involvement of Private Companies in Commercial Production of Electricity

- 504. SHRI R.M. BHOYE: Will the Minister of ENERGY be pleased to state:
- (a) whether there is any proposal to involve the private companies in the commercial production of electricity in the wake of severe shortfall in the hydel production following the failure of the monsoon in most parts of the country; and
  - (b) if so, the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRIMATI SUSHILA ROHTAGI): (a) and (b). policy in respect of private sector participation in power generation is regulated by the Industrial Policy Resolution, 1956. Resolution does not preclude private sector participation in power generation when the national interest so requires. Specific proposals received from private enterprises in this regard are examined on merits, in the context of the additionality of resources proposed to be brought in.

## Conservation of Coking Coal

- 505. SHRI SAIFUDDIN CHOW-DHARY: Will the Minister of ENERGY be pleased to state:
- (a) the steps taken by Government for the conservation of coking coal in India; and