

ally proceedings.

[English]

### **Rural Electrification of Garhwal Region**

2317. SHRI C.M. NEGI: Will the Minister of ENERGY be pleased to state:

(a) whether any proposals are pending with the Central Electricity Authority for the rural electrification of Garhwal region; and

(b) if so, the details thereof?

THE MINISTER OF ENERGY AND MINISTER OF CIVIL AVIATION (SHRI ARIF MOHAMMAD KHAN): (a) and (b). No proposal for rural electrification of Garhwal region is pending with the Central Electricity Authority.

### **Non-Conventional Energy Sources in Garhwal**

2318. SHRI C.M. NEGI: Will the Minister of ENERGY be pleased to state:

(a) whether Government have any plans to develop non-conventional energy sources in Garhwal region of Uttar Pradesh under the Central Energy Development Programmes; and

(b) if so, the details thereof?

THE MINISTER OF ENERGY AND MINISTER OF CIVIL AVIATION (SHRI ARIF MOHAMMAD KHAN): (a) and (b). Several programmes for the development and utilisation of non-conventional energy sources, such as solar energy, wind energy, biomass, bio-gas and micro/mini hydel have been undertaken in Uttar Pradesh, including the Garhwal region, in association with the State Government/Nodal Agency. It is reported that the programmes implemented in

the Garhwal region include about 800 solar photovoltaic street lighting systems and about 470 solar thermal systems of different capacities. A micro hydel plant has been set up, and one Urja Gram project has been implemented while two more Urja Gram projects are under implementation. In addition to other schemes, four mini/micro hydro schemes 125 improved gharats, 6 gasifier systems, about 6,600 improved chulhas and 2 community/institutional biogas plants are proposed to be set up in the Garhwal region during 1990-91.

### **Production of Geo-Thermal Energy**

2319. PROF. P.J. KURIEN: Will the Minister of ENERGY be pleased to state:

(a) whether any research is being done to tap the vast reservoir of heat in the earth's interior to produce geo-thermal energy; and

(b) if so, the details thereof?

THE MINISTER OF ENERGY AND MINISTER OF CIVIL AVIATION (SHRI ARIF MOHAMMAD KHAN): (a) and (b). Yes, Sir, exploratory research has been undertaken on certain applications of geothermal energy, such as heating, refrigeration, chemical extraction, health baths, green house cultivation and power generation.

### **Cut in Indian Airlines operations in South**

2320. PROF. P.J. KURIEN: Will the Minister of CIVIL AVIATION be pleased to state:

(a) whether the Indian Airlines operations in the South have been cut;

(b) if so, the details in this regard; and

(c) the steps being taken to normalise the situations?