

**Boost to Energy Production
from non-Conventional Sources**

*213. DR. G S. RAJHANS : Will the Minister of ENERGY be pleased to state :

(a) the proposals made up-to-date to provide a boost to the production of energy from non-conventional and renewable sources in the country; and

(b) to what extent the problem of steep energy crisis in the country is being met through these sources ?

THE MINISTER OF ENERGY (SHRI VASANT SATHE) : (a) and (b). A statement is given below.

Statement

The Government of India is taking a number of steps to boost the production of energy from non-conventional and renewable sources in the country. In addition to supporting research and development activities, Government is also implementing extension programmes for production of energy through non-conventional energy technologies which have become viable, e.g., under the National Programme for Biogas Development, family based biogas plants are being installed on an increasing scale throughout the country. Improved Chulhas with thermal efficiency of more than 20% are being propagated, especially in rural areas. A Solar Thermal Extension Programme has been initiated on the basis of low and medium temperature technology developed under the Solar Thermal Research and Development programme such solar devices are now being used both for domestic and industrial purposes. A plant for generation of electricity through incineration of city garbage has been set up in Delhi. Electrification of remote and inaccessible areas is being taken up through Solar Photovoltaic systems. A programme for decentralised integrated village level rural energy projects (Urja Grams) based on a combination of non-conventional energy systems and devices is being implemented. The projects are conceived in terms of a mix of energy producing devices and systems to meet the bulk of energy requirements of selected areas.

2. Government is also providing a number of financial and fiscal incentives both to users and manufacturers, for greater exploitation of these sources. These include financial assistance in the form of subsidy, turn-key job fee etc. The fiscal incentives include enhanced depreciation allowance on plants and machineries, exemption from custom duty on the import of certain equipments and exemption from Central Excise Duty in many cases. A number of State Governments have also provided exemption under the State Sales Tax. Financial assistance to the industry and user is also available on soft-term basis from financial institutions. As a result of these measures the use of-conventional energy sources has been given a marked boost during the recent few years.

3. With a view to giving further boost to the alternate sources of energy the Government has also de-licensed from the scope of Industrial Development and Regulation Act, 1951, a number of items for the manufacture of these systems. There is a proposal under the consideration of the Government to set up an autonomous agency to finance viable projects in this area on a wider scale. This will help in strengthening the industrial infrastructure in the country.

4. The utilisation of non-conventional energy sources is helping to mitigate energy shortages. The various non-conventional energy systems installed already have the energy production/saving potential of about 238.80 crores per year equivalent. Greater boost can be given if greater financial allocations are made for non-conventional energy sources.

5. There is at present about 9.6% shortage in the availability of power to meet the requirements. The steps taken by the Government to meet this and other energy shortage include, interalia, expediting commissioning of new capacity in the different energy sectors, implementing short gestation projects, reducing transmission and distribution losses, implementation of energy conservation and demand management and arranging transfer of energy from surplus to deficit States.

DR. G. S. RAJHANS : Sir, despite my best efforts I could not understand what the Minister exactly means by items 4 and 5. My IQ is very poor. I will request the hon. Minister to explain in detail about items 4 and 5.

SHRI VASANT SATHE : Item 4 deals with utilization of non-conventional energy sources. With the non-conventional energy sources, we fulfil two types of needs. One is heat substitute. Basically in the rural areas what is needed by our people is fuel for cooking medium and that is what we supply through biogas and other methods. That is most important. Another need in the rural areas which can be met by the non-conventional energy sources is of electricity for lighting and for irrigation pumps etc. The three mediums which we are using are solar, wind and gasifiers. Biogas which comes from gobar gas mainly is a fuel substitute and meets the heat requirement. That is what we have done. Uptil now, we have invested Rs. 230 crores in the last three years on our non-conventional energy sources and per year we get substitute in terms of heat and also fertilizers to the extent of about Rs. 238 crores. That is how useful the non-conventional energy sources are. But as the House knows, the total investment made in the field of non-conventional energy sources has been very limited as against the conventional sources, where we have installed 47000 megawatts of capacity with Rs. 50000 crores of investments. Here, the main thrust was given about four years ago and the entire investment is Rs. 240 crores. Much more needs to be done. We have six lakhs biogas plants and improved chuhlas to the extent of 26 lakhs. We have yet to do a substantial amount of work, but it will depend on the resource mobilization. That is what I have explained.

DR. G. S. RAJHANS : Is the hon. Minister aware of the energy generated by the Sulabh Shauchalaya method? If so, can the same be experimented in the neighbourhood of Delhi?

SHRI VASANT SATHE : As far as using the waste in the city, which includes the human waste also, we are having plants in Delhi also. We are setting up plants to

generate energy from the waste in various cities in the country. That proposal is there, but I do not know the exact amount in terms of money.

PROF N.G. RANGA : In view of the fact that agricultural workers, and especially their women and adolescent children collect the cowdung anywhere and everywhere in the villages where it is available, will the Government consider the feasibility of helping them to form cooperatives among themselves, among the backward classes, depressed classes and help them to establish much smaller gobar gas plants than what has been so far thought of, so that they would be able to get some income by the sale of manure as also the gas which would be utilized either by themselves or other people?

SHRI VASANT SATHE : This is a very good idea and suggestion and we are already working on that. For these poor people who collect cowdung, who do not have sufficient cowdung to have a biogas plant of their own, we are having a scheme of community biogas plant, where all of them can collect the cowdung, and we supply to these homes the gas that is manufactured out of this. This we have found very useful in tribal areas and backward areas.

MR. SPEAKER : The one that was started in my village is not completed for the last three years?

SHRI VASANT SATHE : Is it not functioning Sir?

MR. SPEAKER : No. It was not even completed.

SHRI K. P. SINGH DEO : India lives in the villages and her population is 750 millions. I would like to know whether any steps have been taken to explore the possibility of using the human manure as bio-mass conversion gas, as in China.

SHRI VASANT SATHE : Yes Sir. We are doing that.

SHRI ANANDA GAJAPATHI RAJU : Investment in non-conventional energy is small and it is only to the tune of Rs. 200

crores and the converted megawatts is also a very small figure. Will it be increased? In this connection, I would like to propose this. Why does not the Union Government consider utilising the Coastal Andhra for starting wind mills and all that, so that there could be more energy generated to meet our requirements? Because it a vast sea coast, would the Government consider this proposal?

SHRI VASANT SATHE : We already have one windmill farm which we have set up on that coast. We have set up windmill farms practically on all sides from Gujarat down and this side as well. There is a good potential for windmill energy in this country. We want to utilise it fully. Again, as I said, resource is the main thing and it is for the Parliament to give more resources. As we get more resources, we will have more windmills.

SHRI H. M. PATEL : Mr. Speaker Sir, the hon. Minister says that the allotment for non-conventional energy is very small. What prevents the Government from allocating larger sums when it is realised that the thermal energy and other sources of regular and conventional forms of energy are wasting? It is not time now that you do allot greater sums of money and see to it that there is greater decentralisation of energy generation, which is only possible if you take recourse to non-conventional sources of energy? Rs. 40 crores was all that was provided last year. Why cannot Rs. 400 crores be provided?

MR. SPEAKER : The Finance Ministry comes in the way.

SHRI VASANT SATHE : I agree with the hon. Member. When he was the Finance Minister, hardly anything was allocated for non-convention sources of energy?

(Interruptions)

SHRI NARAYAN CHOUBEY : Is it relevant?

SHRI VASANT SATHE : We will definitely benefit by his wisdom.

PROF. K. K. TEWARY : Non-conventional wisdom.

SHRI H.M. PATEL : It is easy for the hon. Minister to say that I failed in providing more. Why does not he become wise now and provide more?

SHRI VASANT SATHE : I say Sir, now that the wisdom is flowing, we will try to utilise it. We are already doing...

(Interruptions)

[Translation]

MR. SPEAKER : Better late than never.

SHRI VASANT SATHE : Yes Sir.

[English]

MR. SPEAKER : Next question. Shri Jaya Mohan. Is he absent? Shri Gurudas Kamat. No? How many absentees are there today? Absentes galore.

[Translations]

Exploration of Oil and Gas in Rajasthan

*216. SHRI VIRDHI CHANDER JAIN : Will the Minister of PETROLEUM AND NATURAL GAS be please to state :

(a) whether the pace of exploration of oil and gas in border and desert areas of Rajasthan by the Oil and Natural Gas Commission and the Oil India Limited is very slow ;

(b) whether the Oil India Limited has not started its drilling work so far and the Oil and Natural Gas Commission is using only one drilling machine and is not increasing the number of machines;

(c) if so, the reasons therefore; and

(d) the steps taken/proposed to accelerate the pace of exploration in Rajasthan ?

[English]

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHMA DUTT) : (a) to (b). Exploration in Rajasthan