

**Generation of Power through Non-Conventional Sources of Energy**

\*241. SHRI H. M. PATEL : Will the Minister of ENERGY be pleased to state :

(a) whether it is a fact that the total Plan allotment for power has been substantially reduced because of shortage of resources;

(b) if so, the reasons for not making efforts to utilise non-conventional sources of energy to the full extent;

(c) whether Government are aware that a village in Gujarat has been energised through the utilisation of non-conventional energy; and

(d) whether Government propose to examine the possibility of similar generation of power through non-conventional sources of energy so that villages could be energised and agricultural development accelerated ?

THE MINISTER OF ENERGY (SHRI VASANT SATHE) : (a) In view of overall constraint in resources, the Seventh Plan outlay for the Power Sector is Rs. 34,273 crores.

(b) Efforts are already being made to utilize non-conventional sources of energy in the country for a wide variety of applications, with particular emphasis on providing energy in rural areas. Significant progress has been made in large-scale national programmes in the areas of biogas, improved chulhas, solar thermal, solar photovoltaics, biomass and wind energy. Further efforts towards greater utilization will depend upon higher financial allocations.

(c) and (d). Yes, Sir.

SHRI SRIHARI RAO : To what extent have these non-conventional methods minimised the pollution content ?

SHRI VASANT SATHE : To the extent that it does energy conservation and substitution by utilising non-conventional methods. For example, if you take the pollution caused by sugar distilleries, with the new technology of utilising the waste for conversion into energy, there we can convert it into energy as well as save the pollution. This is how it helps in pollution control.

SHRI SRIHARI RAO : Is it a fact that the PP Environment Controls offered a technology which would minimise the pollution of Ganga water without any cost to the Government ? If so, why does the Government not take the technology into consideration ?

SHRI VASANT SATHE : Is the hon. Member referring to pollution caused by distilleries or any other pollutant ? Every Pollutant is not capable of being converted into energy.

SHRI SRIHARI RAO : Is any indigenous technology available ?

SHRI VASANT SATHE : We will welcome any technology from anywhere that can help not only save energy but also prevent pollution.

SHRI H. M. PATEL : Sir, I would like to seek a brief clarification. The so-called resource constraint is not the point. For the conventional energy you are spending something like Rs. 35000 crores whereas for the non-conventional energy you have provided only Rs 400 crores and odd. The task force which you had appointed recommended Rs. 3400 crores. In your reply you admit that so much good work can be done if non-conventional energy is pursued further in the manner it is being pursued which would result in substantial saving of conventional energy which is very costly. So, would it be possible for the Government to reconsider and allot larger funds for non-conventional energy ?

SHRI VASANT SATHE : Sir, frankly speaking my personal view is that... (Interruptions).

I will come to that. Up till now we did not think that non-conventional sources of energy such as solar, wind and biomass can be commercially exploitable to become commercially viable. That is why Government did not allocate substantial resources or divert, if I may say so, resources which we are putting for conventional energy but with new technologies growing both in the field of solar with photo-voltaic and amorphous silicon coming we may be able to have...

**SHRI AMAL DATTA :** What about wind aero-generators ?

**SHRI VASANT SATHE :** That is part of the wind mill system. With these new technologies developing we are already trying them out. For example, we have already set up three wind mill farms with the capacity of 500 KW each at present. In other countries like USA, in California, they have wind mill farm which generates about 1000 MW. That is the level upto which things have gone. Solar energy also can be utilised substantially and we want to encourage electricity generation from non-conventional sources. Already as a heat substitution in rural areas biomass is proving to be highly useful. It provides gas for cooking in rural areas as the substitution for fuel. So, this is where it will be useful and, I think, we will be able to find resources. Our policy is to encourage non-conventional sources of energy.

**SHRI H. M. PATEL :** Sir, the hon. Minister has expressed his personal view. It is quite clear that he has not been successful in getting allocation of more funds from the Planning Commission and the Government in spite of the fact that it means so much saving. For instance, you have mentioned that one windmill can generate 500 KW of power. There is also a project before you, which costs about Rs. 18 crores which will enable you to generate 15 MW. If that is so, obviously it ought to be allocated more funds...

**SHRI VASANT SATHE :** Which project do you have in mind ?

**SHRI H. M. PATEL :** Some project which is very near to Delhi. I want to ask you one thing. You referred to the fact that rural areas would be greatly benefited if this development is pursued with some speed because it means decentralisation of energy in the rural areas. Small hamlets do not get normal thermal power for a long time because of transmissional and other difficulties. Whereas this development, if pursued further, would mean a tremendous benefit to the rural areas. There is the example of Khandya in Gujarat which has been wholly electrified and energised by non-conventional energy and it has resulted in substantial improvement of the well-being of

the village and in fact the benefit has accrued to all the 900 and odd largely tribal people in this small hamlet. I would like to know whether it is true that some 20 other similar experiments are being carried out in this country. If that is so, why should this not be pursued more rapidly ? I do not have the exact figures, but it does not cost much. I would like to know from the hon. Minister as to how much they have spent on each of the projects. Instead of just 20 such units, why cannot you carry out this experiment in 2000 villages in one year, so that you can cover many villages in the Seventh Five Year Plan period ? I request the Minister that more money should be allotted for this development during the Seventh Plan.

**SHRI VASANT SATHE :** I entirely agree. Khandya has set an example of what an integrated energy concept can do to make a small tribale village self-sufficient in energy and it only cost 15 lakhs of rupees. So, if we can have this concept of integrated energy centres, which we want to spread out in the rural areas, it will really help our rural areas in becoming self-sufficient in energy more speedily.

[Translation]

**SHRI PRATAP BHANU SHARMA :** Mr. Speaker, Sir, our Government have done commendable work in the field of development of non-conventional sources of energy and with this end in view, a separate department has also been created. I would like to know from the hon. Minister whether that department has formulated any long-term plan for the development of non-conventional sources of energy ?

Secondly, an amount of Rs. 120 crores was spent under this department during 1985-86, whereas an amount of Rs. 100 crores only has been provided for the year 1986-87. What is the reaction of this department to this reduction in allocation and what steps are being taken in this regard ?

**SHRI VASANT SATHE :** Mr. Speaker, Sir, I feel that more allocation should be made for this sector and it will be my endeavour to put the entire budget allocation to maximum use for the development of this sector. Besides, we have a long-term

plan also for the development of non-conventional sources of energy.

**Fall in production in Cement Factories run by Cement Corporation of India**

\*225. SHRI HARISH RAWAT : Will the Minister of INDUSTRY be pleased to state :

(a) whether cement production has fallen during the last two years in some of the factories run by the Cement Corporation of India; and

(b) if so, the names of such factories and the extent to which this production is less than the estimated production ?

THE MINISTER OF STATE IN THE DEPARTMENT OF INDUSTRIAL DEVELOPMENT (SHRI M. ARUNACHALAM) : (a) and (b). A Statement is given below.

**Statement**

(a) and (b). Out of nine factories run by the Cement Corporation of India, there was relative fall in cement production in respect of two factories during 1983-84 and four factories during 1984-85. The extent to which the production in these factories was less than the estimated production is indicated in Table below :

Units	1983-84		1984-85	
	Estimated production	Actual production	Estimated production	Actual production (In Lakh tonnes)
Kurkunta	1.70	1.87	2.00	1.83
Akaltara	3.20	3.02	3.17	2.80
Yerraguntla	3.15	3.12	3.15	2.75
Charkhi Dadri	1.55	1.59	1.68	1.49

SHRI HARISH RAWAT : Mr. Speaker, Sir, it is clear from the reply given by the hon. Minister that production of cement had declined in two units of the C.C.I. during 1983-84 and during 1984-85, instead of making improvement, the number of such units rose to 4. The hon. Minister, while replying to a question on 26-11-85, had said that C.C.I. had taken some steps to improve the performance of its units and to push up the profit. In this connection, I would like to know from the hon. Minister as to how much improvement has been achieved ever since these steps were taken ? If there has been some improvement in the performance, may I know the quantum of profit earned by the C.C.I. during 1984-85 and 1985-86.

SHRI NARAYAN DUTT TIWARI : With regard to the question asked by the hon. Member about the financial aspects of the C.C.I., I am to state that the figures relating to the year 1984-85 have been given in the statement that has been placed on the Table of the House.

SHRI HARISH RAWAT : I have also asked about the year 1985-86.

SHRI NARAYAN DUTT TIWARI : Besides, in addition to making annual general review of the undertakings, I undertook a special survey of the Cement Corporation of India and have constituted a high level committee under the Chairmanship of Dr. Vishweshwaraiya, an eminent expert in the cement industry in our country and I hope that after the study of the working of the Cement Corporation of India has been completed, the first report of this committee would be submitted to the Government by the last week of March.

Firstly, the Units have been hit due to shortage of power supply, especially, in Karnataka and Rajasthan. The steps taken by the Cement Corporation of India so far in that regard include installation of captive power plants of 16.8 MW in five cement units. The recommendations of the National Productivity Council are being implemented. Efforts are being made to get adequate