

performance of the National Fertilizers Limited (NFL) is reviewed by the Government on quarterly basis. Based on the identification of problem areas during these quarterly reviews, appropriate

remedial steps are taken to improve the overall performance of these plants. The details of the loss/profit during the last three years for different plants operated by NFL are given below:

(Rs. crores)

Profit/(Loss)	1990-91	1991-92	1992-93
Vijaipur	36.07	80.55	109.39
Bhatinda	3.53	13.57	12.34
Panipat	7.44	2.15	3.37
Nangal	17.31	12.66	13.63
Overall for the company	29.73	83.61	111.47

The overall capacity utilisation of NFL during 1992-93 was 99.8%.

Renewable Energy Sources

*275. SHRIMATI KRISHNENDRA KAUR (DEEPA): Will the PRIME MINISTER be pleased to state:

(a) the details of the technologies, based on renewable energy sources, so far developed in India on commercial basis;

(b) the success achieved in developing non-conventional energy sources for the rural populace of the country; and

(c) the steps being taken to develop on commercial basis?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND MINISTER OF STATE IN THE

MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) to (c). Among the renewable energy technologies developed so far in India, solar water heating systems, solar cookers, wind power generators, small hydro power units, cogeneration systems, photovoltaic power systems for lighting, battery charging and telecommunication applications have been developed to the stage of commercialisation. Other technologies, such as, biogas plants, improved chulhas, solar dryers, photovoltaic pumping systems, wind pumping system, bio-energy systems etc. have also been successfully developed for use predominantly in rural areas of the country. Steps taken to commercialize technologies include introduction of incentive package consisting of accelerated depreciation, sales tax and excise duty exemption, customs duty concessions, tax holiday, wheeling, banking and purchase of power generated by private entrepreneurs, soft loans, information and publicity, entrepreneurship development campaign, market promotion through involvement of

industry, financial intermediaries and service companies etc. Steps have also been taken to orient the R & D towards specific goals with the involvement of

industry. The progress achieved upto 31.12.93 in the development of non-conventional energy systems and devices is given in the *Statement* attached.

STATEMENT

Cumulative Physical Achievements as on 31.12.93

Sl. No.	Programme	Units	Achievements
1.	Family Size Biogas Plants	Nos.	18,47,472
2.	Community/Institutional/ Night Soil Biogas Plants	Nos.	1,059
3.	Improved Chulhas	Nos.	152,95,827
4.	Solar Thermal Systems (Collector Area)	Sq. Mtr.	2,64,380
5.	Solar Cookers	Nos.	3,10,371
6.	Solar Photovoltaics (Aggregated Capacity)	kWp	3,424
(a)	Photovoltaic Power Units	kWp	477.86
(b)	Photovoltaic Community lights/TV and Community facilities	Nos.	810
(c)	Photovoltaic Domestic lighting Systems/Lanterns	Nos.	16,034
(d)	Photovoltaic Street Lights	Nos.	29,313
7.	Photovoltaic Pumps for Irrigation and Other enduse Applications	Nos.	103*
8.	Wind Pumps	Nos.	3,017
9.	Wind Battery Chargers	Nos.	108
10.	Wind Farms	MW	71
11.	Mini-Micro Hydro	MW	105
12.	Urjagram Energy Surveys	Nos.	1,746
13.	Urjagram Projects	Nos.	203
14.	Biomass based cogeneration of power	MW	6
15.	Biomass Gasifiers	MW	9.5
16.	Battery operated vehicles	Nos.	250
17.	Alcohol operated vehicles	Nos.	52

* Upto Feb' 94