

MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES**DEMAND NO. 64****Ministry of Non-Conventional Energy Sources**

A. The Budget allocations, net of recoveries, are given below:

(In crores of Rupees)

Major Head	Budget 2003-2004			Revised 2003-2004			Budget 2004-2005			
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
Revenue	499.76	5.35	505.11	307.96	5.74	313.70	503.76	5.47	509.23	
Capital	125.04	...	125.04	82.04	...	82.04	96.04	...	96.04	
Total	624.80	5.35	630.15	390.00	5.74	395.74	599.80	5.47	605.27	
1. Secretariat-Economic Services	3451	6.40	5.35	11.75	6.40	5.74	12.14	6.91	5.47	12.38
Non-Conventional Energy Sources										
2. Solar Energy Programme	2810	177.11	...	177.11	73.05	...	73.05	107.76	...	107.76
	3601	0.03	...	0.03	0.03	...	0.03
	3602	4.92	...	4.92	2.01	...	2.01	1.42	...	1.42
	4810	0.04	...	0.04	0.04	...	0.04	0.04	...	0.04
	<i>Total</i>	<i>182.10</i>	...	<i>182.10</i>	<i>75.10</i>	...	<i>75.10</i>	<i>109.25</i>	...	<i>109.25</i>
3. Biogas Programme & NBB	2810	34.90	...	34.90	31.96	...	31.96	15.96	...	15.96
	3601	15.10	...	15.10	12.10	...	12.10	8.01	...	8.01
	<i>Total</i>	<i>50.00</i>	...	<i>50.00</i>	<i>44.06</i>	...	<i>44.06</i>	<i>23.97</i>	...	<i>23.97</i>
4. Wind Energy Programme	2810	19.18	...	19.18	15.50	...	15.50	26.35	...	26.35
5. Bio-mass Programme	2810	21.65	...	21.65	18.70	...	18.70	25.54	...	25.54
6. Integrated Rural Energy Programme	2501	0.15	...	0.15	0.15	...	0.15	1.60	...	1.60
	3601	3.91	...	3.91	3.30	...	3.30	6.39	...	6.39
	3602	0.05	...	0.05	0.05	...	0.05	1.00	...	1.00
	<i>Total</i>	<i>4.11</i>	...	<i>4.11</i>	<i>3.50</i>	...	<i>3.50</i>	<i>8.99</i>	...	<i>8.99</i>
7. Other Sources of Energy	2810	54.90	...	54.90	26.40	...	26.40	38.90	...	38.90
	3601	1.50	...	1.50	1.00	...	1.00	1.00	...	1.00
	3602	0.10	...	0.10	0.10	...	0.10	0.10	...	0.10
	<i>Total</i>	<i>56.50</i>	...	<i>56.50</i>	<i>27.50</i>	...	<i>27.50</i>	<i>40.00</i>	...	<i>40.00</i>
8. Improved Chulhas	2810	0.30	...	0.30	0.30	...	0.30	0.08	...	0.08
	3601	0.19	...	0.19	0.03	...	0.03	0.16	...	0.16
	3602	0.01	...	0.01	0.01	...	0.01	0.01	...	0.01
	<i>Total</i>	<i>0.50</i>	...	<i>0.50</i>	<i>0.34</i>	...	<i>0.34</i>	<i>0.25</i>	...	<i>0.25</i>
9. Energy from Urban and Agricultural Wastes	2810	13.50	...	13.50	4.50	...	4.50	14.40	...	14.40
10. Investment in Public Enterprises	4810	40.00	...	40.00	40.00	...	40.00	50.00	...	50.00
	6810	85.00	...	85.00	42.00	...	42.00	46.00	...	46.00
	<i>Total</i>	<i>125.00</i>	...	<i>125.00</i>	<i>82.00</i>	...	<i>82.00</i>	<i>96.00</i>	...	<i>96.00</i>
11. National Institute of Renewable Energy	2810	3.00	...	3.00	3.00	...	3.00	6.00	...	6.00
12. Other Items	2810	88.86	...	88.86	70.40	...	70.40	182.14	...	182.14
13. Lumpsum provision for N.E.Region & Sikkim	2552	54.00	...	54.00	39.00	...	39.00	60.00	...	60.00
Grand Total		624.80	5.35	630.15	390.00	5.74	395.74	599.80	5.47	605.27
B. Investment in Public enterprises	Head of Dev	Budget Support	I.E.B.R	Total	Budget Support	I.E.B.R	Total	Budget Support	I.E.B.R	Total
10.01 Indian Renewable Energy Development Agency	12810	125.00	458.14	583.14	82.00	437.52	519.52	96.00	487.45	583.45
	<i>Total</i>	<i>125.00</i>	<i>458.14</i>	<i>583.14</i>	<i>82.00</i>	<i>437.52</i>	<i>519.52</i>	<i>96.00</i>	<i>487.45</i>	<i>583.45</i>
C. Plan Outlay*										
1. Non Conventional Sources of Energy	12810	624.85	458.14	1082.99	389.87	437.52	827.39	598.40	487.45	1085.85
2. Special Programmes for Rural Development	12501	0.15	...	0.15	0.15	...	0.15	1.60	...	1.60
Total		625.00	458.14	1083.14	390.02	437.52	827.54	600.00	487.45	1087.45

* Inclusive of works outlay provided in the Demands of Ministry of Urban Development and Poverty Alleviation.

Demand No.99	12810	0.20	...	0.20	0.02	...	0.02	0.20	...	0.20
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1. **Secretariat** : Provides for secretariat expenditure of the Ministry of Non-Conventional Energy Sources.

2. **Solar Energy Programme**: Includes provision for Solar Thermal Energy Programme and Solar Photovoltaic Energy Programme including research and development, demonstration and extension of solar thermal energy technologies and, inter-alia, envisages support in the form of Soft loans for Solar Thermal Systems and promotional measures for Solar Cookers.

3. **Biogas Programme** : Biogas programme aims at providing clean gas for cooking, lighting and electricity generation and enriched manure from cattle dung and night soil. The Programme includes popularisation of family type plants and also research and development on Biogas Development (NPBD), inter-alia, provides subsidy to farmers for setting up biogas plants and fees for Turnkey job worker and Rural Energy Technicians for quality construction and repair and maintenance service for Biogas Plants for a period of first three years.

4. **Wind Energy Programme** : This includes wind power generation, strengthening of wind data base, research and development, including setting up of Centre for Wind Energy Technology (C-WET), demonstration and field testing of various wind turbines.

5. **Bio-mass/Bio-Energy Programme** : Provision for this programme relates to R&D on biomass production and promotion of conversion and utilisation of various technologies. Biomass Based Co-generation Programme has been taken up for generation of power in sugar Industry. Programme on Biomass Gasification and Biomass Combustion based power has been further strengthened. Under this Programme financial incentives viz capital and interest subsidy are being provided for installation of these projects.

6. **Integrated Rural Energy Programme (IREP)**: The Programme, inter alia aims at to provide for minimum domestic energy needs for cooking, heating, lighting and to meet energy requirements of sustainable agricultural and rural development with due environmental considerations. Under the State sector component, State outlay would be utilized for implementation of micro level IREP projects.

7. (i) **Other Sources of Energy** : Includes provision for research and development and demonstration projects and activities for promoting the use of environmentally clean new energy technologies such as fuel cell technology, hydrogen energy, bio-fuels for surface transport, non-polluting fuels and vehicles for surface transportation, geothermal energy for power generation and direct heat applications and ocean energy for power generation. Subsidy is provided to beneficiaries through the State Governments for battery powered electric vehicles. Projects are taken up at several research, scientific, academic institutions, national laboratories, universities, industry, etc. in the country.

(ii) **Small Hydro Programme**: Small Hydro Project (SHP) programme is aimed at utilisation of the run of rivers and natural falls. Decentralised power generation through such systems either being connected to grid or directly supplied to the local inhabitants in remote and hilly areas. Financial support is also being provided for feasibility studies, detailed project reports preparation and towards interest subsidy for installation of these projects. A project with partial assistance for GEF/UNDP on "Optimising development

of Small Hydel Resources in the Himalayan and Sub-Himalayan Regions" is under implementation.

8. **National Programme on Improved Chulhas** : The programme aims to promote improved chulhas to reduce drudgery and health hazards to women and girl children in collection of fuelwood and exposure to smoke while cooking on traditional chulhas and providing employment opportunities in rural areas.

9. **Energy from Urban and Industrial Wastes** : With a view to recover energy in the forms of fuel and power from urban and Industrial Wastes a "National Programme on Energy Recovery from Urban, Municipal and Industrial wastes" has been launched. The scheme provides fiscal and financial incentives for waste to energy projects. Besides, a UNDP/GEF assisted project on "Development of high Rate Biomethanation Process as Means of Reducing Green House Gas Emission" is under implementation.

10. **Investment in Public Enterprises** : Indian Renewable Energy Development Agency has been set up to support various new and renewable sources of energy projects and schemes. The agency is responsible for financing such projects through internal resources, equity and mobilisation of funds from external agencies.

11. **National Institute of Renewable Energy (NIRE)** : The need for a separate Institute at the National Level was felt as there is no separate institution responsible for conducting state-of-the art research and development activities in all the areas relating to renewable non-conventional energy sources, human resources development at all levels and devoted to conduct of convergent allied, associated and related activities leading to commercialisation of various renewable energy technologies. With this in view, Sardar Swaran Singh National Institute of Renewable Energy has been established and during the current year, various preparatory activities and constructions of the buildings and campus of the Institute have been taken up.

12. **Other Items**: (i) Includes provision for Information & Publicity, International Cooperation, Regional Offices, Technology information Forecasting Assessment and Databank (TIFAD), Human Resource Development & Training, R&D projects and for Special Area Demonstration Project.

(ii) Remote Village Electrification: The Ministry has undertaken the task of electrifying all un-electrified remote villages and hamlets where the extension of grid is not likely, through renewable sources mainly biomass, small hydro, solar, wind, etc. The Ministry has launched a remote village electrification programme under which so far, about 1400 such villages have been electrified. The objective of the programme is to electrify census villages and remote hamlets of electrified census villages through renewable energy sources. The Ministry aims to electrify all such remote census villages by 2007, i.e. end of the 10th Plan and all households by 2012, i.e., end of 11th Plan.

13. **Lumpsum provision for NE Regions & Sikkim**: Includes provision of Central financial assistance for setting up of State Nodal Agencies in the North East States including Sikkim for planning implementing and monitoring the Non-Conventional Energy Programmes in these states and human resource development.