

**Energy Department
Demand No. 14**

Policy Note on

**Tamil Nadu Electricity Board
Electrical Inspectorate, Tamil Nadu Energy Development Agency and
Tamil Nadu Power Finance and Infrastructure Development Corporation
2006 - 2007**

TAMIL NADU ELECTRICITY BOARD

The Tamil Nadu Electricity Board is a statutory body formed on 01.07.1957 under the Electricity Supply Act, 1948. The main objective of Tamil Nadu Electricity Board is to perform electricity generation, transmission and distribution functions in an effective manner and supply quality power to its consumers.

The total generating capacity of Tamil Nadu Electricity Board as on 31.03.2006 is 10,011 Mega Watts. This comprises 5531 MW of TNEB's own generating stations, 1,101 MW of Private Sector Power Plants, 2,841 MW as Share from Central Sector generating stations, External assistance of 360 MW and others (Captive Power Plants) of 178 MW. Apart from this, a total capacity of 2,879 MW is available from Wind Mills in the Private Sector and 19 MW of power from the Wind Mills of TNEB. Besides this, a total capacity of 296.6 MW is available from Co-generation plants and 40.35 MW from Bio-mass plants

The maximum peak demand so far reached is 8,544 MW (on 11.05.2006). The growth of energy consumption is expected to be of the order of 8% per annum. Energy consumption during 2005-06 is 56,055 Million Units (MU). On 5.4.2006 the maximum daily consumption was 173.06 MU.

As on 31.03.2006 there are 1,110 substations, 1.47 lakh Kms. of Extra High Tension / High Tension (EHT/HT) lines, 4.87 lakh Kms. of Low Tension (LT) lines, 1.67 lakh distribution transformers and 178.03 lakh service connections.

I. CAPACITY ADDITION IN GENERATION:

To meet the increase in demand, TNEB has planned to augment its generating capacity by 2,408.8 MW and correspondingly to expand the transmission and distribution system during the X Plan period (2002-07).

During the year 2005-06, under the Central Sector, the fourth 500 MW unit was commissioned at Talcher Super Thermal Power Station, Stage-II, by National Thermal Power Corporation (NTPC), from which TNEB is availing a share of 136 MW. Under Private Sector M/s. Aban Power Company Ltd., have commissioned a gas based project with a capacity of 113 MW in Karuppur in Thanjavur District. Under State Sector the Pykara Ultimate Stage Hydro Electric Project with a capacity of 150 MW was commissioned in Nilgiris District.

During the year 2006-07, the increase in generating capacity from State, Central and Private Sector will be 749.3 MW (State Sector- 130.3 MW, Share from Central Sector – 566 MW and Private sector - 53 MW). The above addition includes the following:

In the State Sector, Valuthur Gas Turbine Power Project (Additional) with a capacity of 95 MW at a cost of Rs.385 crores will be commissioned in Ramanathapuram District and Bhavani Kattalai Barrage-I Hydro Electric Project with a capacity of 30 MW will be commissioned in Erode District at a cost of Rs.195 Crores.

In the Private Sector, 53 MW gas based project by M/s. Arkay Energy Limited will be commissioned at Valantharavi in Ramanathapuram District.

Under Central Sector, the first unit of 1000 MW capacity of Kudangulam Atomic Power Project will be commissioned during 2006-07 and a share of 463 MW is entitled for Tamil Nadu. Also, the Kaiga Atomic Power Project, Stage-II with a capacity of 2x220 MW will be commissioned during 2006-07 and a share of 103 MW is allocated to Tamil Nadu.

II. POWER SUPPLY POSITION IN 2006-07

The power position in the State is being efficiently handled without any power cut/load shedding. This is made possible by maximizing thermal generation, purchasing additional power from Kayankulam Gas based Station and Eastern Region Power Stations and from Independent Power Projects on Merit Order Dispatch basis and by judicious utilization of precious hydel storage by effective load management.

The performance of Thermal Stations in Tamil Nadu continues to be good and during the past four years the Thermal Plants at Tuticorin, Mettur and North Chennai, have bagged

the Gold / Silver medals from the Government of India. The above thermal stations have become eligible for Gold / Silver Medals for the year 2005-06 also.

The storage position as on 01.04.2006 including Mettur is 1,366.740 MU which was 1,095.535 MU on the same day last year. The Hydro generation during 2005-06 was 6,141 MU. This high hydel generation was achieved because of the heavy rain during the year. It is proposed to generate 4,250 MU from Hydel units in 2006-07.

The anticipated demand during 2006-07 will be around 9,200 MW. Average daily consumption is expected to be 162 Million Units. The increased demand will be met from the existing generating capacity and from the above proposed capacity additions.

The outlay for the X Plan period (2002-07) is Rs.8,000 Crores. The proposed Capital Outlay for 2006-07 is Rs.1,797.65 Crores. The break up under various heads is as follows:

(Rs. in Crores)

S. No	Description	X Plan Outlay (2002-07)	Outlay for 2006-07
1.	Generation	1,212	189.50
2.	Renovation & Modernisation	364	45.15
3.	Transmission & Distribution	5,914	1,205.40
4.	Rural Electrification	490	100.50
5.	Survey & Investigation	20	2.50
6.	Interest During Construction		254.60
	TOTAL	8,000	1,797.65

Under Transmission & Distribution network, it is programmed to add 60 new substations of various voltage categories and around 800 Circuit Kms. of EHT lines during the year 2006-07. During the X Plan period, (2002-07) it is programmed to establish 315 new substations and erect 4,000 Circuit Kms. of EHT lines.

III. TRANSMISSION AND DISTRIBUTION IMPROVEMENTS

1. ACCELERATED POWER DEVELOPMENT AND REFORMS PROGRAMME (APDRP)

The Ministry of Power, Government of India have sanctioned schemes for 16 district headquarters towns for Rs.18.91 Crores. The MOU has to be signed for implementation of the above schemes. The Government of Tamil Nadu has requested Ministry of Power, Government of India to relax certain conditions (namely Franchising, Turnkey, etc.) in the MOU for which the reply is awaited from Ministry of Power, Government of India.

2. NATIONAL AGRICULTURAL BANK FOR RURAL DEVELOPMENT (NABARD) SCHEMES

Under Rural Infrastructure Development Fund IX, NABARD has sanctioned loan assistance to the tune of Rs.63.48 Crores covering 5 Districts viz., Dharmapuri, Tirunelveli, Kanyakumari, Tuticorin and Karur with the scheme period completion by 2005-06. Against this the expenditure upto 31.03.2006 is Rs. 49.61 Crores. The balance amount of Rs.13.87 Crores will be spent by 31.03.2007 for which extension of 1 year has been requested with NABARD.

3. RURAL ELECTRIFICATION CORPORATION ASSISTED SCHEMES

Rural Electrification Corporation provides loan assistance for line loss reduction schemes under a five year implementation period from 2003-04 onwards. Schemes for line loss reduction have been sanctioned in respect of following Districts:

	Cost of the Scheme (Rs. in Crores)
1. Coimbatore (North)	87.86
2. Trichy (North)	138.92
3. Dindigul	109.35
4. Madurai	75.64
Total	411.77

Against this, an expenditure of Rs. 99.19 Crores has been incurred up to 31.03.2006.

4. POWER FINANCE CORPORATION ASSISTED SCHEMES

21 Schemes covering 19 Districts have been sanctioned by Power Finance Corporation (PFC) at a total cost of Rs.260.94 Crores, out of the estimated cost of Rs.327.57 Crores. Documents have been executed for 8 schemes for a total amount of Rs.166.42 Crores and works are under progress. Apart from this, schemes for establishing 18 new substations and enhancing power transformer capacity in 23 substations for a total amount of Rs.79.05 Crores have been sanctioned by PFC.

5. RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA (RGGVY) SCHEMES

RGGVY Scheme (Rajiv Gandhi Grameen Vidyutikaran Yojana) was launched by the Ministry of Power, Government of India with the objective to create Rural Electricity Infrastructure for Electrification of all the rural households by 2012.

The Detailed Project Reports for all the 29 Districts of Tamil Nadu (Chennai District not covered) have been sent to Rural Electrification Corporation and sanction for the same is awaited.

IV. GENERAL

1. LT BILLING AND COLLECTION – COMPUTERISATION PROJECT.

For easy payment of electricity bills by the low tension supply consumers, Project BEST (Billing of Energy Services by TNEB) has become operational by computerization in 615 Urban sections at a cost of Rs.51.23 Crores. In the balance 1,805 rural sections (at a total cost of Rs.163.5 Crores), it will be completed in 2006-07.

2. COMPUTER BASED POWER FAILURE REDRESSAL CENTRES

Computer based power failure redressal centre which has been successfully implemented in Chennai has been extended to Corporations of Coimbatore, Madurai and Trichy at a cost of Rs.73 lakhs. It has also been programmed to extend this facility to the District Headquarters at Salem, Tirunelveli, Erode, Nagercoil and Vellore.

ELECTRICAL INSPECTORATE DEPARTMENT

INTRODUCTION & ADMINISTRATION

Electricity is a subject included in the concurrent list of Constitution of India and Electricity Act, 2003 (Act 36 of 2003) has been made repealing the enactments of Indian Electricity Act, 1910, Electricity Distribution Act, 1948, the Electricity Regulatory Commission Act, 1998. The said Electricity Act, 2003, has come into force with effect from 10th June 2003.

From September 1961, the Electrical Inspectorate Department with Chief Electrical Inspector to Government, as Head was created as a separate Department. After the formation of Energy Department at Secretariat on 1.8.93, the Electrical Inspectorate has come under the administrative control of the Energy Department.

FUNCTIONS

The Electrical Inspectorate Department is entrusted with the following duties and functions:-

1. Carrying out inspections and other services under Indian Electricity Rules, 1956, till regulations are made under the Electricity Act, 2003 (Act 36 of 2003).

2. Tamil Nadu Lift Act, 1997 and Tamil Nadu Lift Rules, 1997.
3. Duties specified in Tamil Nadu Cinema (Regulation) Rules, 1957, in respect of Electrical Installation of Cinema Houses.
4. Functioning as Member of Technical Committee Bureau of Indian Standards, which makes Indian Standards Specifications in Electro Technical Field.
5. The Chief Electrical Inspector to Government has to function as Ex-Officio President of the Tamil Nadu Electrical Licensing Board constituted under Rule 45 of the Indian Electricity Rules, 1956.
6. The Chief Electrical Inspector to Government has to function as the Ex-Officio President of the Government Board of Examiners for Cinema Operators constituted under Tamil Nadu Cinema (Regulation) Rules, 1957.
7. This department is notified as the “Designated Agency” in G.O.Ms.No.37, Energy (C2) Department, dated. 10.5.05, to co-ordinate, regulate and enforce the provisions of the Energy Conservation Act, 2001 (Central Act 62/2001).

FUNCTIONS UNDER THE INDIAN ELECTRICITY RULES, 1956:

1. Approval and periodical inspections of High and Extra-High Voltage electrical installations of Generating Companies , Tamil Nadu Electricity Board and High Tension consumers under Rule 46 of Indian Electricity Rules, 1956.
2. Periodical inspection of High Tension installation of High Tension Consumers under Rule 46 of Indian Electricity Rules, 1956.
3. Periodical inspection of supplier's High and Extra High Voltage Installations, under Rule 46 of Indian Electricity Rules, 1956.
4. Receipt of intimation of all electrical accidents under Rule 44A of Indian Electricity Rules, 1956, in connection with the generation, transmission, supply or use of energy, inspection of the accident spot and preparation of report.

TAMIL NADU TAX ON CONSUMPTION OR SALE OF ELECTRICITY ACT & RULES, 2003

This Act has come into force on and from 16.6.2003, repealing the existing Tamil Nadu Electricity (Taxation on Consumption) Act, 1962 and Tamil Nadu Electricity Duty Act, 1939.

Tax rates under this Act:

- a) Self generated consumption of electrical energy is ten paise per unit.
- b) On sale of energy by Tamil Nadu Electricity Board or any other licensee 5% on the net energy charges.
- c) Following categories of consumers are exempted from the levy of the above tax.
 - i) For consumption by any Governments
 - ii) Railway Administration
 - iii) Any Local Authority
 - iv) Energy sold by Tamil Nadu Electricity Board or any other licensees for the use of domestic, huts and agricultural purposes.
 - v) Energy sold for the consumption of developers of Special Economic Zones, Industrial Units and other establishments within Special Economic Zones.
 - vi) Energy sold for the consumption of first new Industrial units set up in Tamil Nadu for a period of 3 or 4 or 5 years, depending upon the amount invested in eligible fixed assets from the date of first invoice.

STANDARDS LABORATORY AND MOBILE LABORATORIES

There is a Government Electrical Standards Laboratory at Guindy, Chennai. There are mobile Electrical Testing Laboratories in Chennai, Salem, Tirunelveli, Madurai and Trichy.

TAMIL NADU ENERGY DEVELOPMENT AGENCY

Introduction

Tamil Nadu Energy Development Agency (TEDA) was set up in 1985, to develop and promote renewable energy sources in Tamil Nadu. With a view to encourage the public to use alternative sources of energy, the Agency is implementing various schemes with the assistance of Government of Tamil Nadu and Government of India. As a result of various efforts taken, the use of renewable energy has increased considerably in Tamil Nadu. The total installed capacity of power from renewable sources (including Hydro power) as on 31.03.2006 is 3201 MW, which is about 40% of the total installed capacity in the country and is also 22 % of the total grid capacity of TNEB, whereas the All India average is 5.5% only. Thus, Tamil Nadu maintains as No. 1 State in India in power generation from renewable energy sources.

Renewable energy sources of energy :

The important renewable energy sources are as follows :

- (i) Wind energy,
- (ii) Solar energy,
- (iii) Biomass and other forms of bio energy
- (iv) Tidal energy,
- (v) Fuel cell,
- (vi) Ocean - Thermal energy,
- (vii) (vii) Geo-thermal.

Among the above mentioned sources, the first three renewable energy sources, namely, Wind, Solar & Bio energy are being harnessed in a big way in India and in Tamil Nadu, while the other sources have not yet reached a stage of commercial exploitation.

I. WIND ENERGY:

1. 1 Wind Assessment Studies and Demonstration Wind Farms:

Wind Assessment studies were conducted to identify places having wind speed of more than 18 kmph. Based on the study, Demonstration wind farms for a total capacity of 19 MW were set up in Tamil Nadu in stages from among the 41 identified places over a period of time following which starting from the first private sector wind farm in Tamil Nadu during 1990, large numbers are being installed. New Wind Monitoring Stations were sanctioned by Ministry of Non Conventional Energy Sources with 80% cost and the balance cost borne by the State Government, totalling 8 Nos. during 2003-06 which are under installation and study. Further Micro survey of wind resource around select potential stations has been carried out to provide reliable data to wind farm developers for selecting proper locations for wind mills in potential areas. Apart from 19 stations where the study was carried out with MNES funding, the study has been carried out in 5 more stations and 3 Nos. are under study with State funding.

1.2 Growth in Investment from Private sector :

As per the Wind Resource Assessment carried out in 67 sites, 41 stations were declared as suitable for wind power projects out of which, 22 have been developed entirely through private sector investment except for 19 MW, for a total installed capacity of 2898 MW as on 31.03.2006 which is 58% of the installed capacity in the country. TNEB is

purchasing the power generated from the wind mills @ Rs.2.70 per unit and allows wheeling and banking for captive power use by the investors at the concessional rate of 5% each. Further review of Tariff and other related matters will now be considered by Tamil Nadu Electricity Regulatory Commission. The Commission has issued orders in August 2005 allowing third party sale of power in Tamil Nadu subject to certain conditions.

1.3 Small Wind energy systems

Apart from MW scale wind mill generators (grid connected), stand alone type generators up to 30 KW are also available, Wind mills can also be used directly for pumping water for drinking purposes or minor irrigation. MNES subsidy is available for installation of these systems.

2. SOLAR ENERGY:

Solar energy can be harnessed in two ways namely (i) for producing electricity meant for lighting and other electrical applications and (ii) for making hot water or for drying agricultural produce and processing industrial products and for cooking purposes.

2.1. Solar Photovoltaic system

2.1.1. Solar photovoltaic devices

Solar photovoltaic (PV) devices can be used for meeting the needs of home lighting, office lighting and street lighting and are promoted in the State under scheme for providing subsidy at 50% of the cost from MNES. Local bodies can go in for SPV street lighting and reduce current consumption charges. In Tamil Nadu 1350 Nos. solar Home lights including 429 Nos. for Group houses constructed by Rural Development, Department and 5565 Nos. Solar street lights including 3000 Nos. in village panchayats were installed under the subsidy scheme. For 2005-06, MNES has allotted 1200 Home lights and 400 Nos. Street lights in February / March 06 for installation in rural areas. MNES has also separately allotted solar street lights (500 Nos.), solar control systems for street lights (200 Nos.), Solar illuminated hoardings 55 Nos.) Solar road studs (1000 Nos.), solar blinkers (150 Nos) and solar traffic signals (50 Nos.) for installation in urban areas. These are being installed in six Municipal Corporations and 10 major Municipalities in the State through the Commissioner for Municipal Administration

2.1.2 Electrification of remote habitations

TEDA has taken up electrification of remote and unelectrified hamlets in Tamil Nadu, since grid power could not be extended to them due to remoteness from grid and their location in the midst of forest areas. The entire cost is shared between MNES and State Government. In 2005-06, the State Government sanctioned Rs.366.75 lakhs towards additional subsidy apart from Rs.100.00 lakhs sanctioned in 2003-04 to meet the balance cost over and above the Central assistance from MNES at 90% of cost based on the rates fixed by MNES, since the tender rates were much higher than MNES rates. MNES has released Rs.367.00 lakhs as advance. TEDA has issued work order for the installation of 6637 Nos. of solar home lights and 300 solar street lighting in 150 habitations in 12 districts under Phase -I at a total cost of Rs.1023 lakhs including maintenance for 5 years. The work is expected to be completed by Sep 2006.

The State Government also allotted Rs.50.59 lakhs during 2005-06 towards State share (10% cost on MNES rates) for electrification of 94 hamlets under Phase-II for which MNES has to sanction necessary assistance. The scheme would be taken up for implementation after receipt of sanction from MNES.

2.2. Solar Thermal Energy

2.2.1. Solar water heating system:

The scheme for installation of solar water heating system using solar thermal energy for purposes of bathing in houses, lodges and hospitals and washing utensils / equipment has been implemented in Tamil Nadu, with subsidy from Government of India. There was no MNES assistance after 1993, when the scheme was implemented with State funding. In Tamil Nadu, totally 3522 domestic solar water heating systems and 403 industrial systems were installed under various subsidy schemes of Central and State Governments, upto 31.3.2006. Solar water heaters have also been installed in 59 Government buildings such as hospitals with 100% funding from State Government.

The Government of Tamil Nadu has also issued orders making use of solar water heating systems mandatory in certain type of new buildings in the State in the year 2002. TEDA has worked out detailed guidelines indicating the capacity of solar water heaters required for different types of buildings. It also organized seminar for the Town planners and Municipal officials on enforcement of the above for new buildings.

MNES has also revived the assistance for installation of solar water heating system in 2005-06 by providing soft loan at 2% to domestic users and 3% and 5% for other institution and industrial users through IREDA and public / private sector banks etc. It is also expected that capital subsidy will be provided to the users who are not availing loans by MNES from 2006-07.

2.2.2. Solar air heating system :

The technology for using solar thermal energy for drying grains, tea, fruits, leather, etc was first developed and used in Tamil Nadu which has become viable for certain types of drying and air heating applications. To encourage its use further, the Government of Tamil Nadu sanctioned a total amount of Rs.10.81 lakhs for providing subsidy for drying of various products, for a total capacity of 840 m² during 2003-04 and 2005-06. The total capacity installed in Tamil Nadu with Government assistance is 4300 m². In 2005-06, MNES has started giving assistance to the users of solar airheating system upto 50% cost for institutions and upto 35% cost for commercial / industrial users subject to a maximum limit. In March 2006, MNES has sanctioned Central assistance of Rs.7.80 lakhs for installation of 446 sq.m system for a private Dryer unit at Tirupur. In addition Tamil Nadu Energy Development Agency has sent two proposals to MNES for sanction for a total capacity of 1455 sq.m.

2.2.3. Solar cookers :

Box type solar cooker is meant for cooking for 4 to 5 persons, using solar thermal energy thereby saving conventional fuel like fire wood or gas. It is now promoted through soft loan scheme of Banks. But, dish type cookers for 10 to 15 persons and community solar cooker for cooking indoors for more no. of persons using solar thermal energy have also been developed. MNES, GOI provides subsidy upto 30% of cost subject to maximum limit. Solar steam cooking system can be installed where boilers are used for steam generation and cooking for thousands of persons. MNES subsidy upto 50% cost for non-profit making institutions and 35% for commercial and industrial users are available. In March 2006 MNES have sanctioned 500 Nos. solar dish cookers with a total subsidy of Rs.8.25 lakhs and one solar steam cooking system of 1150 sq.m dish area with an assistance of Rs.55.00 lakhs for an institution in Chennai.

3. BIOMASS AND OTHER BIO ENERGY SYSTEMS:

The scheme for producing gas (producer gas) and electricity from biomass and other bio waste and meet the energy requirements of industries or for export to grid are being implemented in Tamil Nadu. The details are given below:

3.1 Cogeneration

The scheme for producing steam from bagasse high pressure boilers in sugar mills and generating electricity for export of surplus power to TNEB and using the low pressure steam after power generation for process has been successfully implemented in Tamil Nadu. With a total installed capacity of 315 MW as on 31.03.2006, (with exportable surplus of 183-MW) Tamil Nadu is leading in the country.

3.2. Biomass based power generation

Government of Tamil Nadu encourages production of electricity by utilizing fire wood, other agricultural wastes and unused perishables (vegetables). The present installed capacity under biomass power is only 37.5 MW (3 units) as on 31.3.2006. The Government is taking necessary action to promote such projects in various parts of the State and thus promote employment opportunities in rural areas.

3.3. Biomass Gasifiers:

MNES is providing subsidy for installation of biomass gasifier systems to meet thermal and electrical energy required for industries and other institutions. TEDA encourages and helps industries and the other Institutions to install gasifier systems availing the subsidy of 10% for thermal applications and 50% for electrical applications using 100% producer gas engines. The use of gasifier is advocated wherever diesel, furnace oil or LPG are presently used as primary fuel for various thermal applications.

For industrial application MNES has so far sanctioned as on 31.3.2006, 26 gasifiers (thermal) of total capacity of 3050 Kwe and 15 gasifiers (electrical) of total capacity of 1823 Kwe and installed except 5 nos. electrical gasifiers which are under implementation.

TEDA also gave a new thrust to the promotion of renewable energy in rural areas especially for the local bodies. MNES has sanctioned a total 135 Nos. small capacity (9 KWe) gasifiers of which 60 Nos. have been commissioned. State Government also provided additional subsidy over and above the central assistance in respect of weaker local bodies.

3.4. Toilet linked biogas plants :

TEDA is also promoting toilet linked biogas plants for which the State Government provided totally Rs.63.40 lakhs during 2003-05 for installation of 82 Nos. including 39 Nos.

in Integrated Women Sanitation Complexes. The gas generated is used for operating water pumps and provide water supply for the respective complexes and for cooking in a few places.

3.5 Village Energy Security Plan (VESP)

MNES has introduced this new scheme with the objective of meeting the total energy needs of unelectrified and remote hamlets using locally available renewable energy sources. In Tamil Nadu 4 hamlets have been selected for implementation of the test scheme through District Forest Officers for which 90% of cost (Rs.49.54 lakhs) is provided by MNES and the balance 10% is sanctioned by State Government. The scheme will be extended to cover other such remote hamlets after obtaining necessary assistance from MNES.

4. ROLE OF RURAL DEVELOPMENT DEPT IN THE PROMOTION OF RENEWABLE ENERGY

Rural Development Department is actively involved in the promotion and use of renewable energy devices in Tamil Nadu. The following are the schemes which are implemented by TEDA in village panchayats with the active support from the Rural Development Department for the year 2003-04.

No	Scheme	Numbers
1.	SPV street lights	3072
2.	SPV Home lights	429
3.	Biomass Gasifier	60
4.	Toilet linked biogas plants	39

Further Rural Development Department has issued orders authorizing Project Officers / DRDA to act as District Nodal Agencies for renewable energy based on the proposals submitted by TEDA. This will go a long way in extending the reach of renewable energy schemes and involving local bodies in implementing / adopting renewable energy schemes.

Based on the proposals sent by TEDA as per the guidelines of MNES, Government of India, State Government have issued orders for setting up of 'district level Advisory Committee on renewable energy, under the District Collector. The same has been set up in all 30 Districts including Chennai for which MNES, Government of India has sanctioned Rs.1.50 lakhs each to carryout various activities.

5. OTHER SCHEMES:

5.1. Power generation from Waste:

Schemes for producing gas from tapioca/sago waste water, poultry litter and vegetable wastes and generation of electricity are under implementation in Tamil Nadu as follows:

- (i) 500 KWe capacity Project for producing biogas and electricity from tapioca waste water in Pappireddipatti (Dharmapuri district) has been completed.
- (ii) Scheme for power generation (1.5 MWe) from poultry waste in Namakkal district has been completed. Another project (2.5 MWe) has also been sanctioned in Namakkal which is under implementation.
- (iii) The Govt.of India have sanctioned financial assistance for a 250 KWe project to generate electricity from the vegetable waste available in Koyambedu wholesale vegetable Market, Chennai. The scheme is implemented by CMDA. The scheme has been completed and power generation started.

5.2. Battery Operated Vehicles:

The vehicles running on batteries have been developed and are in use, which help control pollution by reducing of obnoxious emissions from petrol and diesel vehicles. The eligible institutions / organizations using these vehicles are given subsidy upto 33% of the cost of vehicles by MNES, Government of India. These vehicles can be used in wild life sanctuaries, tourist centers, hospitals etc. In Tamil Nadu subsidy has been provided so far to 27 vans and 2 auto rickshaws.

5.3. Publicity and awareness programmes:

TEDA has been organizing seminars and exhibitions to extend the use of renewable energy and promote energy conservation among industries and other institutions besides taking part in programmes organized by other agencies. TEDA has intensified its publicity activities by conducting District level awareness seminars for the benefit of representatives of local bodies, industrialists, NGOs, etc. The State Government has also sanctioned totally Rs.16.25 lakhs towards 50% subsidy for providing 480 Nos. solar educational kits during 2004-06 to Government Higher Secondary Schools in order to create awareness among school students about the various uses of solar energy. MNES has now decided to implement this programme at all India level.

MNES has introduced a new scheme for setting up Renewable Energy clubs to create awareness about new and renewable energy sources its various systems and devices, among the students especially in the Engineering Colleges by providing Rs.25000/- per annum for each College. In March 2006 MNES has sanctioned Rs.22.00 lakhs towards setting up renewable energy clubs in 88 Engineering Colleges in Tamil Nadu.

5.4 Renewable Energy Parks

TEDA encourages setting up of Energy Parks in Universities, engineering Colleges, ITIs etc., for creation of awareness on the uses of renewable energy devices. MNES provides central financial assistance at 75% for first District level park and 50% for second park. MNES has sanctioned 14 Energy Parks which have been completed. 5 more energy parks were sanctioned during 2003-04 and 23 parks during 2005-06 are under implementation. A state level energy Park (SLEP) has also been sanctioned by MNES in March 2006 with a total Central Financial Assistance of Rs.89.00 lakhs towards the cost of equipments / devices. State Government has already sanctioned Rs.35.00 lakhs towards civil works. The SLEP will be set up at the premises belonging to Tamil Nadu Science and Technology Centre, Kotturpuram, Chennai.

5.5 Modified IREP

The Integrated Rural Energy Programme (IREP), which was earlier implemented in 21 blocks only was revamped by MNES and extended to all the Districts. The State Government has in 2005-06 approved implementation in 14 Districts only. The scheme will be extended to cover all the 29 districts in the State from 2006-07. This scheme will help implement schemes on energy security in cluster of villages.

Government has also sanctioned Rs.4.00 lakhs for preparation of detailed project reports for sustainable energy security systems in Salem and Coimbatore districts. The work has been entrusted to Anna University and the reports are awaited.

5.6. Renewable Energy Schemes under WGDP / HADP

The State Government has sanctioned renewable energy schemes such as Biomass gasifier, SPV street light, toilet linked biogas plants, Energy Parks, wind resource assessment study etc., under Western Ghat Development Programme (WGDP) and Hill Area Development Programme (HADP). A total out lay of Rs.93.65 lakhs was sanctioned under WGDP and Rs.111.90 lakhs under HADP for 2 years (2004-06). For 2006-07 also Rs.41.13 lakhs under WGDP and Rs.51.00 lakhs under HADP have been proposed.

5.7. Rashtriya Sam Vikas Yojana

Under this programme State Government has sanctioned setting up of one energy park at Collectorate, Dindigul at a total outlay of Rs.30.00 lakhs. TEDA is providing necessary technical assistance for procurement of the devices for the Energy Park.

5.8. Research and Development activities

The State Government sanctioned Rs.20.00 lakhs during 2005-06 towards its share for undertaking 3 R & D projects in renewable energy sector through Institute for Energy Studies, Anna University would make matching contribution of Rs.20.00 lakhs towards 50% of the cost. The work will be commenced shortly and completed in 2 years.

6. New Schemes under Part II for 2006-2007

The Government has proposed to sanction a total outlay of Rs.345.90 lakhs for the implementation of the following new schemes during 2006-2007.

Sl. No.	Description of the Schemes	Total (Rs. in lakhs)
1	Electrification of Remote Habitations (94 Nos.) under PhaseII State share over and above MNES share. (Additional cost to meet the difference in cost between MNES fixed rates and expected tender rates)	300.00
2	State level Energy Park at Chennai (towards additional cost of civil works)	17.00

3	State share (20%) for setting up of 3 new wind monitoring stations.	6.00
4	Assistance for installing solar water heating systems in Government Hospitals / Hostels / Institutions (Full cost)	10.50
5	Toilet linked biogas plants for local bodies/ institutions 10 cubic metre subsidy @ Rs.0.50 lakhs	10.00
6	Solar dish cookers for Noon meal centres having less than 50 children / students	2.40
	Total	345.90

TAMIL NADU POWER FINANCE AND INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

The Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (Power Finance) was incorporated on 27.6.1991. The Corporation is registered with Reserve Bank of India as a Non Banking Finance Company. The objective of the Corporation is to mobilize funds for the Power Sector in Tamil Nadu, particularly the schemes for generation, transmission and distribution of power by the Tamil Nadu Electricity Board. The authorized share capital of the Corporation is Rs.50 crores and the Paid up Share Capital as on date is Rs.22 crores.

FIXED DEPOSITS:

Concern and care for the customers and consistent profits have considerably expanded the deposit base over the last decade besides leaving an indelible imprint in the minds of the investors. This has resulted in the substantial growth of deposit base from Rs.2.09 crores in 1991-92 to Rs.2027 crores as on 31.3.2006 and the number of deposits from 816 in 1991-92 to 1,79,091 deposits as on 31.3.2006.

FINANCIAL ASSISTANCE:

The funds mobilised by Power Finance are being utilised to finance Tamil Nadu Electricity Board for its generation / transmission / distribution and other activities. The total financial assistance provided to TNEB since inception is Rs.5516 crores and the net loan outstanding from TNEB is Rs.2183.97 crores as on 31.3.2006. In addition to the above, a sum of Rs.38 crores has been provided to other Corporations like Poompuhar Shipping Corporation Limited., Tamil Nadu Industrial Investment Corporation Limited etc.,

MANAGEMENT OF GOVERNMENT SCHEMES:

A sum of Rs.175.46 crores benefiting 1,15,171 children has been received as deposit under the “Girl Child Protection Scheme”.

A sum of Rs.25.40 crores has been received covering 10,158 temples under “Oru kala Pooja” Scheme.

PROFITABILITY & DIVIDEND:

The Corporation has been making profit consistently since its inception. It is also declaring dividend at 20% on its Paid up Share Capital continuously for the past nine years since 1995-96. Up to 2004-05, the Corporation has paid dividend totalling Rs.38.82 crores to Tamil Nadu Government. The Corporation is expected to earn Net Profit after tax of Rs.30.66 crores during 2006-07.

FUTURE PLANS:

1. Mobilise a sum of Rs,180 crores as net deposits from public and institutions in the financial year 2006-07.
2. Provide financial assistance of Rs. 900 crores for power and infrastructure projects to be implemented by Tamil Nadu Electricity Board in the year 2006-07.
3. Provide financial assistance of Rs.50 crores to other institutions during the financial year.

Arcot N. Veeraswami
Minister for Electricity and Rural Industries