

RENEWABLE ENERGY PROGRAMME

The objective of the programme under this sector is to prepare and implement area based renewable energy programmes through which the optimum mix of all type of energy sources is utilised for meeting the minimum energy requirements through conventional sources has been limited due to fast depletion and higher rates. The only way to approach this problem is popularizing the uses of new and renewable energy sources like, solar, wind, biomass, small hydro, hydrogen, ocean, and geothermal energy sources. As the conventional fuel cost is increasing day by day, it is necessary to go for alternative source of energy, which is commercially viable environmental friendly in a big way. The Renewable Energy devices like, solar water heaters, solar cookers, solar street lights, solar home lighting systems, solar water pumps, biomass based gasifier for thermal and electrical applications are to be used to a greater extent.

During the Eleventh Five Year Plan, it is proposed that adequate emphasis will be given to implement Energy Conservation Act. Seminars / Workshop will be organized for industrialists, Panchayat level, Self Help groups and for students. Young Energy Guards will be formed in the schools / colleges, Energy Conservation Week will be celebrated with the assistance from the Bureau of Energy Efficiency. 30,000 improved chulhas and 5000 improved cook stoves will be distributed at subsidized rates. 10 nos. of improved brick kiln / potter kiln at 50% subsidized rates, 100 Nos. of Community chulhas will be constructed in school, private hotels and restaurants. 10000 Nos. of Compact Fluorescent Lamps will be distributed at subsidized rate. Municipal solid waste to coal projects will be taken up in 6 places. Biomass gasifiers will be distributed at 30% subsidized rates for lighting and cooking purpose. 50000 LPD Solar water heating system, 500 solar lanterns, 200 solar street lights, 50 solar home lights, 10 solar water pumps will be installed. Solar panels will be distributed at 50% subsidized rates. 300 Nos. of High mast solar streetlights will be installed. One bio diesel pump will be installed in addition to giving training to youths and Self help groups on bio diesel extraction process.

During the Annual Plan 2007-08, it is proposed to establish a Young Energy Guards (YEG) in various schools to implement Energy Conservation measures. To create awareness and to promote the concept of renewable energy, it is proposed to conduct seminar / workshop / exhibitions on renewable energy sources. 6000 Nos. of improved chulhas, 3000 Nos. of compact fluorescent lamps, 1000 Nos. of improved cook stoves, 10 nos. of bio gas plant, 20 nos. of community chulhas will be given at subsidized rate. 50% subsidy will be given for improved brick kiln / potters kiln. 50% subsidy will be granted to 1KW biomass gasifier. Municipal solid waste into coal project will be installed at free of cost. 10,000 LPD solar water-heating systems will be installed. 100 Nos. of solar lanterns, 10 nos. of solar cookers will be distributed at subsidized rate. 30 Nos. of solar street lights, 10 nos. of solar home lighting systems and 50 nos. of high mast solar street lights will be installed in various places. 1 No. of bio diesel extraction unit will be purchased. State Level Energy Education Park will be completed and it will be run by engaging handicapped men and women.

OUTLAY AT A GLANCE

Sector : RENEWABLE ENERGY PROGRAMME

No. of Schemes : 5

Department : RENEWABLE ENERGY AGENCY OF PONDICHERRY(REAP)

(Rs. in lakh)

Tenth Plan 2002-07 Approved Outlay	:	40.00
Annual Plan 2002-05 Actual Expenditure	:	12.50
Annual Plan 2005-06 Actual Expenditure	:	51.36
Annual Plan 2006-07 Approved Outlay	:	60.00
Annual Plan 2006-07 Revised Outlay	:	60.00
Eleventh Five Year Plan 2007-12 Proposed Outlay	:	650.00
Annual Plan 2007-08 Proposed Outlay	:	123.30

(Rs. in lakh)

Sl. No.	Name of Scheme	Annual Plan 2005-06	Annual Plan 2006-07		Eleventh Plan 2007-12	Annual Plan 2007-08
		Actual Expdr.	Approved Outlay	Revised Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Strengthening of Renewable Energy Wing	17.88	27.99	28.09	180.00	30.00
2.	Subsidy for various energy conserving devices	12.42	12.00	12.00	110.00	30.00
3.	New Sources of Energy	18.06	0.01	0.01	250.00	15.00
4.	Promotion of Bio-Energy Plantation and Bio fuel extraction	3.00	5.00	5.00	50.00	8.30
5.	State Level Energy Education Park	--	15.00	14.90	60.00	40.00
Total		51.36	60.00	60.00	650.00	123.30

Scheme No. 1Sector : RENEWABLE ENERGY
PROGRAMMEImplementing: RENEWABLE ENERGY
Department AGENCY OF PUDUCHERRY1. **Name of the scheme** : Strengthening of Renewable Energy Wing.2. **Objective of the Scheme** :

To promote and to create awareness on the concept of renewable energy sources and the usage of renewable energy devices. Planning and implementation of Renewable Energy programme so as to ensure regular and planned flow of energy inputs for meeting the requirements of various end users in the Union Territory. To meet the expenditure towards strengthening of Renewable Energy Wing.

(Rs. in lakh)

3. Tenth Plan 2002-07

(a) 2002-05 (Actual Expenditure)	:	75.00
(b) 2005-06 (Actual Expenditure)	:	17.88
(c) 2006-07 (Approved Outlay)	:	27.99
(d) 2006-07 (Revised Outlay)	:	28.09
(e) Actual Physical achievement (2002-05)	:	

Training and extension including publicity on Renewable Energy Programme. Workshop on Solar Passive Architecture.

(f) **Actual physical achievement (2005-06)** :

Conduct of seminar on Solar Passive Architecture. Celebration of Renewable Energy Day. Conducting of District Advisory Committee meeting for Renewable Energy.

(g) **Anticipated physical achievement 2006-07** :

Conduct of exhibition on Renewable Energy in Puducherry and Mahe regions. Celebration of Renewable Energy Day. Conducting drawing, essay competitions at school and college level. Floating of tabulo in Republic Day 2007. Conducting DAC meeting for Renewable Energy.

(Rs. in lakh)

4. **Proposed Outlay for the Eleventh Plan (2007-12)** : 180.00**Proposed Outlay for the Annual Plan (2007-08)** : 30.005. **Programme envisaged for the Eleventh Plan (2007-12)** :

Implementing Renewable Energy Programme effectively in rural and urban areas. Conducting seminar / workshop to the Chairman, Village Panchayats and Self Help Groups

on the usage of renewable energy sources and energy saving / energy conserving applications. Formation of Young Energy Guards in school / college level. Celebration of Energy Conservation Week in association with Bureau of Energy Efficiency, New Delhi. Conducting energy audit for the institutions, like, hospitals, industries, educational institutions, Government Departments, etc.

6. Programme envisaged for the Annual Plan (2007-08) :

Conducting seminar / workshop to the Chairman, Village Panchayats and Self Help Groups on the usage of renewable energy sources and energy saving / energy conserving applications. Formation of Young Energy Guards in school / college level. Celebration of Energy Conservation Week in association with Bureau of Energy Efficiency, New Delhi. Conducting energy audit for the institutions, like, hospitals, industries, educational institutions, Government Departments, etc.

Creation of Posts :

Project Director	-	1 No.
Assistant Engineer	-	1 No.
Junior Engineers	-	3 Nos.
Technical Assistants	-	4 Nos.
Junior Accounts Officer	-	1 No.
Superintendent	-	1 No.
Stenographer Gr.II	-	1 No.
Data Entry Operator	-	1 No.
UDC	-	2 Nos.
LDC	-	3 Nos.
Drivers	-	3 Nos.
Cleaner	-	1 No.
Attender	-	2 Nos.
Peon	-	2 Nos.
Sanitary Assistant	-	1 No.
Purchase of two wheeler	-	2 Nos.

7. Remarks : Continuing Scheme

The nomenclature of the scheme is changed from Maintenance of Rural Energy Cell to Strengthening of Renewable Energy Wing.

Scheme No. 2

Sector : RENEWABLE ENERGY PROGRAMME
 Implementing: RENEWABLE ENERGY Department AGENCY OF PUDUCHERRY

1. Name of the scheme : Subsidy for various Energy Conserving Devices.

2. Objective of the Scheme :

To distribute various energy conserving devices at subsidized rate for fulfilling energy needs and energy saving. To convert all bio degradable municipal solid waste into coal, a new project is proposed by engaging the Self Help Groups in selected Communes.

(Rs. in lakh)

3. Tenth Plan 2002-07

(a) 2002-05 (Actual Expenditure)	:	25.00
(b) 2005-06 (Actual Expenditure)	:	12.42
(c) 2006-07 (Approved Outlay)	:	12.00
(d) 2006-07 (Revised Outlay)	:	12.00
(e) Actual Physical achievement (2002-05)	:	

Smokeless Chulha	:	15,050
CFL (18W)	:	6,220
Nuton Stove	:	1,600
Family Size Biogas Plant	:	15
Community Chulha	:	20
Mud Pot Cooler	:	70
100 KW Biomass Gasifier	:	1
Night Soil Biogas Plant	:	4
Biomass Crematorium	:	5
Solar Cooker	:	88

(f) Actual physical achievement (2005-06) :

Smokeless Chulha	:	5,000
CFL (18W)	:	500
Nuton Stove	:	1000
Family Size Biogas Plant	:	8
Community Chulha	:	15

(g) Anticipated physical achievement 2006-07 :

Improved Chulha	:	6,000
CFL (18 W)	:	2,000
Improved cook stove	:	1000
Biogas plant	:	10
Community Chulha	:	15

(Rs. in lakh)

4. Proposed Outlay for the Eleventh Plan (2007-12) : 110.00

Proposed Outlay for the Annual Plan (2007-08) : 30.00

5. Programme envisaged for the Eleventh Plan (2007-12) :

Improved Chulha	:	30,000
Improved Cook Stoves	:	5,000
Improved Potter Kiln / Brick Kiln	:	10
Biogas Plant	:	50
Community Chulha	:	100
CFL	:	10,000
Municipal Solid waste to coal project	:	6
Biomass Gasifier for Thermal applications	:	30

6. Programme envisaged for the Annual Plan (2007-08) :

Improved Chulha	:	6,000
CFL (18W)	:	3,000
Improved Cook Stove	:	1,000
Biogas Plant	:	10
Community Chulha	:	20
Improved Potters Kiln / Brick Kiln	:	2
Municipal Solid waste to coal project	:	3
1KW Biomass Gasifier	:	4
Biomass Gasifer for Thermal applications	:	5

7. Remarks : Continuing Scheme

Pattern of Assistance :

Rs.2000 per cu.m. subsidy for biogas plant; 50% subsidy for smokeless Chulha; 30% subsidy for community Chulha; 50% subsidy for improved cook stove; municipal solid waste into coal project will be installed at free of cost. 50% subsidy will be granted for 1KW Biomass gasifier for electrical and thermal applications; 50% subsidy for improved potters kiln / brick kiln. 50% subsidy for CFL / LED.

Scheme No. 3

Sector : RENEWABLE ENERGY
PROGRAMME

Implementing: RENEWABLE ENERGY
Department AGENCY OF PUDUCHERRY

- 1. Name of the scheme :** New Sources of Energy.
- 2. Objective of the Scheme :**

To propagate the use of new and renewable energy devices, it is proposed to take up solar photovoltaic programmes. In order to save electricity, high mast solar street lights will be installed in urban / rural areas. Subsidy assistance will be given to the battery operated vehicles considering its eco friendly nature.

(Rs. in lakh)

3. Tenth Plan 2002-07

(a) 2002-05 (Actual Expenditure)	:	40.00
(b) 2005-06 (Actual Expenditure)	:	18.06
(c) 2006-07 (Approved Outlay)	:	0.01
(d) 2006-07 (Revised Outlay)	:	0.01
(e) Actual Physical achievement (2002-05)	:	

Solar Water heating System	:	13,200 LPD
Solar Lantern	:	125
Solar Street Light	:	191
BOVs	:	10
CFL Street Lights	:	25
Solar Home Lights	:	25

(f) Actual physical achievement (2005-06)	:	
Solar Water heating System	:	9,500 LPD
Solar Lantern	:	25
BOVs	:	10
Solar Street Lights	:	2

(g) Anticipated physical achievement 2006-07 :

Solar Water heating System	:	10,000 LPD
Solar Lantern	:	50
BOVs	:	5

(Rs. in lakh)

4. Proposed Outlay for the Eleventh Plan (2007-12) : 250.00

Proposed Outlay for the Annual Plan (2007-08) : 15.00

5. Programme envisaged for the Eleventh Plan (2007-12) :

Solar Water heating System	:	50,000 LPD
Solar Lantern	:	500
BOVs	:	50
Solar Street Lights	:	200
Solar Water Pumps	:	10
Solar Home Lights	:	50
Solar Pannel	:	50
High mast solar street lights	:	300
Fuel cell based power plant	:	1
Solar Educational Kit	:	50

6. Programme envisaged for the Annual Plan (2007-08) :

Solar Water heating System	:	10,000 LPD
Solar Lantern	:	100
BOVs	:	10
Solar Cooker	:	10
Solar Water Pumps	:	2
Solar Street lights	:	30
Solar Pannel	:	10
Solar Home Lights	:	10
High mast solar street lights	:	50
Solar Educational Kit	:	10

7. Remarks : Continuing Scheme

Pattern of Assistance

Rs.500/100 LPD with a maximum of Rs.20,000 for 500 LPD of Solar Water Heating Systems to the commercial / private institutions. Rs.15,000 for Battery Operated Vehicles and Rs.5000 additional subsidy for those who purchase the vehicle with battery chargers for operating in rural areas. 50% subsidy to solar cooker, solar lantern and 30% subsidy for solar street lights. 50% subsidy for solar panels. It is also proposed to grant Rs.5000 as subsidy for Battery Operated two wheelers and Rs.20000 for Battery Operated four wheelers. 25% subsidy maximum of Rs.20000 for solar green power pack.

Scheme No. 4Sector : RENEWABLE ENERGY
PROGRAMMEImplementing: RENEWABLE ENERGY
Department AGENCY OF PUDUCHERRY

1. **Name of the scheme** : Promotion of Bio-Energy Plantation and Bio-Fuel extraction.

2. **Objective of the Scheme** :

To promote plantation of oilseed yielding plants / trees in porambokku lands. To train the self help groups / youth groups in the extraction of bio diesel from the seeds by engaging PALMYRA, Auroville. Installation of bio diesel pump for carbon free environment. Motivating the Renewable Energy Clubs in bio diesel demonstration programme.

(Rs. in lakh)

3. Tenth Plan 2002-07

(a) **2002-05 (Actual Expenditure)** : **3.00**

(b) **2005-06 (Actual Expenditure)** : **3.00**

(c) **2006-07 (Approved Outlay)** : **5.00**

(d) **2006-07 (Revised Outlay)** : **5.00**

(e) **Actual Physical achievement (2002-05)** :

Preliminary works were taken up for raising nursery.

(f) **Actual physical achievement (2005-06)** :

50,000 seedlings were raised of and 40,000 seedlings were planted.

(g) **Anticipated physical achievement 2006-07** :

Raising 50,000 seedlings were planted in 50 acres.

(Rs. in lakh)

4. **Proposed Outlay for the Eleventh Plan (2007-12)** : **50.00**

Proposed Outlay for the Annual Plan (2007-08) : **8.30**

5. Programme envisaged for the Eleventh Plan (2007-12) :

Installation of Bio Diesel Pump - 1 No.
Training to Youth and Self Help Group for oil extraction

6. Programme envisaged for the Annual Plan (2007-08) :

Bio Diesel Extraction Unit – 1 No.
Infrastructure facilities for the unit.
Engage PALMYRA, Auroville for Bio Diesel extraction and giving training to the
Youths.

7. Remarks : Continuing Scheme

Scheme No. 5

Sector : RENEWABLE ENERGY PROGRAMME
Implementing: RENEWABLE ENERGY
Department AGENCY OF PUDUCHERRY

1. Name of the scheme : State Level Energy Education Park.

2. Objective of the Scheme :

To create awareness and give publicity among the students, teacher, rural and urban masses to the extent possible about the use and benefits and renewable energy systems and devices.

(Rs. in lakh)

3. Tenth Plan 2002-07

(a) 2002-05 (Actual Expenditure)	:	--
(b) 2005-06 (Actual Expenditure)	:	--
(c) 2006-07 (Approved Outlay)	:	15.00
(d) 2006-07 (Revised Outlay)	:	14.90
(e) Actual Physical achievement (2002-05)	:	--
(f) Actual physical achievement (2005-06)	:	--
(g) Anticipated physical achievement 2006-07	:	

State Level Energy Education Park – 1 No.

(Rs. in lakh)

4. Proposed Outlay for the Eleventh Plan (2007-12) : 60.00

Proposed Outlay for the Annual Plan (2007-08) : 40.00

5. Programme envisaged for the Eleventh Plan (2007-12) :

Maintenance of State Level Energy Education Park – 1 No.
Improvement of Energy Park – 1 No.

6. Programme envisaged for the Annual Plan (2007-08) :

Completion of State Level Energy Education Park – 1 No. It is proposed to run the scheme by engaging handicapped men and women for maintenance.

7. Remarks

: Continuing Scheme. The nomenclature of the Scheme is changed from “Energy Education Park” is changed as “State Level Energy Education Park”.