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 Annual Plan 2007-08, Renewable Energy Exhibitions will be conducted in Puducherry and Karaikal regions. Energy Conservation Week will be celebrated by way of conducting seminars to the Village Panchayats, Self Help Groups and for school children. 6000 nos. of smokeless chulhas, 2000 nos. of compact fluorescent lamps will be distributed to the public at subsidized rate. 10 Nos. of family size biogas plants and 15 nos. of community chulha will be constructed. 10,000 LPD solar water heating systems will be installed at subsidized rate. 50 nos. of solar lanterns will be distributed at subsidized rate. 5 Nos. of battery operated vehicles will be given subsidy. 10,000 bio fuel seedlings will be planted in poramboke lands. State Level Energy Education Park will be maintained by engaging suitable persons.

During the Annual Plan 2008-09, 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, 5000 Nos. of compact fluorescent lamps, 1000 Nos. of LED bulbs, 50 nos. of bio gas plant, 20 nos. of community chulhas will be given at subsidized rate. 20% subsidy will be given for improved brick kiln / potters kiln on the cost of the machinery. 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 10 nos. of solar panel will be supplied at 50% cost. 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 suitable persons. Subsidy amount of Rs.5,000/- & Rs.2,000/- for Registered and Un-Registered Battery Operated two wheelers respectively and Rs.40,000/for Battery Operated four wheelers and Rs.20,000/- for BOV (Three wheelers) will be granted. Energy Conservation Fund is proposed to be created under State Plan. This fund will be utilized for promotion of programmes relating to renewable energy sources and energy conservation technologies. Creation of awareness on renewable energy and energy efficiency among the students, self help groups and village panchayats.

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OUTLAY AT A GLANCE

Sector : RENEWABLE ENERGY PROGRAMME No. of Schemes : 6 Department : RENEWABLE ENERGY AGENCY OF PONDICHERRY(REAP)

| | | (Rs. in lakh) |
|---|---|---------------|
| Tenth Five Year Plan 2002-07 Actual Expenditure | : | 139.86 |
| Annual Plan 2006-07 Actual Expenditure | : | 76.00 |
| Eleventh Five Year Plan 2007-12 Approved Outlay | : | 701.16 |
| Annual Plan 2007-08 Approved Outlay | : | 60.00 |
| Annual Plan 2007-08 Revised Outlay | : | 60.00 |
| Annual Plan 2008-09 Proposed Outlay | : | 110.00 |

(Rs. in lakh)

| Sl. | Name of Scheme | Annual Plan 2006-07 | | Annual Plan 2007-08 | |
|-----|--|---------------------------|--------------------|------------------------|--------------------|
| No. | | Actual Expdr. | Approved Outlay | Revised Outlay | Proposed Outlay |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | Strengthening of Renewable Energy Wing | 26.41 | 20.00 | 9.98 | 25.00 |
| 2. | Subsidy for various energy conserving devices | 11.00 | 6.00 | 6.00 | 12.00 |
| 3. | New Sources of Energy | 15.59 | 1.00 | 0.01 | 14.00 |
| 4. | Promotion of Bio-Energy Plantation and Bio fuel extraction | 3.00 | 3.00 | 0.01 | 10.00 |
| 5. | State level Energy Education Park | 20.00 | 30.00 | 44.00 | 30.00 |
| 6. | Energy Conservation Fund * | | | | 19.00 |
| | Total | 76.00 | 60.00 | 60.00 | 110.00 |

*New Scheme

| Sec | tor : RENEWABLE ENERGY PROGRAMME | Implementing:RENEWABLE ENERGYDepartmentAGENCY OF PUDUCHERRY |
|-----|-------------------------------------|---|
| 1. | 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.

3.(a) Actual physical Achievement 2006-07

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

:

Anticipated Physical Achievement 2007 - 08 **(b)** :

Conduct of exhibition on Renewable Energy in Puducherry and Karaikal regions. Celebration of Renewable Energy Day. Conducting drawing, essay competitions at school and college level. Floating of tabulo in Republic Day 2008. Conducting DAC meeting for Renewable Energy.

Programme envisaged for Annual Plan 2008-09 : (c)

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.

4. **Remarks** :

Continuing scheme



| Sector | r : RENEWABLE ENERGY PROGRAMME | - | 0 | RENEWABLE ENERGY AGENCY OF PUDUCHERRY |
|--------|-----------------------------------|---|--------------------|--|
| 1. | Name of the scheme | | ubsidy Devices. | for various Energy Conserving |
| 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.

| 3. (a) | Actual physical Achievement 2006-07 | : | | |
|---------------|---|-------------|-----------------------------------|--|
| | Smokeless Chulha CFL (18W) Community Chulha | : : : | 7,000 2750 6 | |
| (b) | b) Anticipated Physical Achievement 2007 - 08 | | | |
| | Improved Chulha CFL (18 W) Biogas plant Community Chulha LED bulb | : | 6,000 5,000 10 15 200 | |

Programme envisaged for Annual Plan 2008-09 : (c)

| Improved Chulha | : | 6,000 |
|------------------|---|-------|
| CFL (18W) | : | 5,000 |
| LED bulb | | 1000 |
| Biogas Plant | : | 50 |
| Community Chulha | : | 20 |
| e | • | |

:

4. 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;. 50% subsidy for CFL and Rs.15/- for LED bulb. 20% subsidy on the cost of machinery for improved Brick Kiln will be granted.

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| Sector | : RENEWABLE ENERGY PROGRAMME | - | 0 | RENEWABLE ENERGY AGENCY OF PUDUCHERRY |
|--------|---------------------------------|---|--------|--|
| 1. | Name of the scheme | : | New So | ources 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.

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3.(a) Actual physical Achievement 2006-07

| Solar Water heating System | : | 7,000 LPD |
|----------------------------|---|-----------|
| Solar Lantern | : | 68 |
| BOVs | : | 10 |
| Solar Street Lights | : | 110 |

(b) Anticipated Physical Achievement 2007 - 08

| Solar water heating system | : | 10,000 LPD |
|----------------------------------|---|------------|
| Solar Lantern | : | 50 |
| BOVs | : | 10 |
| Solar panels | : | 10 |
| Renewable Energy Educational Kit | : | 10 |

(c) Programme envisaged for Annual Plan 2008-09 :

| Solar water heating system | : | 10,000 LPD |
|----------------------------------|---|------------|
| Solar Lantern | : | 100 |
| BOVs | : | 10 |
| Solar Cooker | : | 10 |
| Solar Street lights | : | 30 |
| Solar Pannel | : | 10 |
| Solar Home Lights | : | 10 |
| Renewable Energy Educational Kit | : | 10 |

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4. Remarks : Continuing scheme

Pattern of Assistance :

Rs.5,000/- for 100 LPD with a maximum of Rs.20,000/- for 500 LPD of Solar Water Heating Systems to the commercial / private institutions. 50% subsidy to solar cooker, 50% subject to a maximum of Rs.1,550/- to solar lantern and 30% subsidy for solar street lights. 50% subsidy for solar panels. It is also proposed to grant subsidy of Rs.5,000/- & Rs.2,000/- for Registered and Un-Registered Battery Operated two wheelers respectively and Rs.40,000/- for Battery Operated four wheelers and Rs.20,000/- for BOV (Three wheelers).

Scheme No. 4

| Sector | : RENEWABLE ENERGY PROGRAMME | - | 0 | RENEWABLE ENERGY AGENCY OF PUDUCHERRY |
|--------|---------------------------------|---|---|---|
| 1. | Name of the scheme | : | | on of Bio-Energy Plantation and l 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.

3.(a) Actual physical Achievement 2006-07

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

:

(b) Anticipated Physical Achievement 2007 - 08 :

Raising 20,000 seedlings will be planted.

(c) Programme envisaged for Annual Plan 2008-09 :

- i) Bio Diesel Extraction Unit 1 No.
- ii) Infrastructure facilities for the unit.
- iii) Engage PALMYRA, Auroville for Bio Diesel extraction and giving training to the Youths.

4. **Remarks** : Continuing scheme



| Sector | : RENEWABLE ENERGY PROGRAMME | - | • | RENEWABLE ENERGY AGENCY OF PUDUCHERRY |
|--------|---------------------------------|---|----------|--|
| 1. | Name of the scheme | : | State Le | evel 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.

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| 3. (a) | Actual physical Achievement 2006 | -07 | : | | Nil | | |
|---------------|---|------------------------|--------|-------|------------------------------------|--|--|
| (b) | Anticipated Physical Achievement 2007 - 08 : | | | | | | |
| | State Level Energy Education Park – 1 No. | | | | | | |
| (c) | Programme envisaged for Annual Plan 2008-09 : | | | | | | |
| | It is proposed to run and maintain the park by engaging suitable persons. | | | | | | |
| 4. | Remarks | : Continuing scheme | | | | | |
| | | | | | | | |
| | | | | | Scheme No. 6 | | |
| Sector | : RENEWABLE ENERGY PROGRAMME | Implement Departmer | 0 | | EWABLE ENERGY NCY OF PUDUCHERRY | | |
| 1. | Name of the scheme | : Ene | ergy (| Conse | rvation Fund | | |

2. Objective of the Scheme :

The objective of the scheme is to promote the efficient use of energy and its conservation within the Union Territory of Puducherry. This fund will be used for meeting expenses incurred for implementing the provisions of the Energy Conservation Act 2001. It is also proposed to collect additional fund by way of "Green Cess" on sale of electricity for commercial and industrial consumers and major consumers of petroleum fuels.

| 3. (a) | Actual physical Achievement 2006-07 | : | Nil |
|---------------|--|---|-----|
| (b) | Anticipated Physical Achievement 2007 - 08 | : | Nil |

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(c) Programme envisaged for Annual Plan 2008-09 :

Promotion of programmes relating to renewable energy sources and energy conservation technologies. Creation of awareness on renewable energy and energy efficiency among the students, self help groups and village panchayats.

4. Remarks : New Scheme

It is proposed to take up this scheme from 2008-2009 onwards with the assistance from the Bureau of Energy Efficiency (BEE), Ministry of Power, New Delhi.