CHAPTER 10

ENERGY

10.1 Energy is one of the critical infrastructures for broad based inclusive growth of the economy. It is a crucial input for both economic development as well as overall well-being of the people. Over the years, there has been a steady increase in consumption of energy, both domestic and commercial. Generation and supply of power at affordable price has always remained a challenge before the Government. Increase in power generation has cascading effects on all sectors leading to increased growth, particularly in industry, agriculture, trade, business and other allied activities. Therefore, the objective of the Government is to achieve self-sufficiency in the energy sector on a sustainable basis taking care of steady growth in the demand for energy. In keeping with this objective, State Government have been making substantial investments in the energy sector in the successive Plans by embarking on ambitious programmes and specifically, have introduced reform process in this Sector since 1995 to ensure a competitive environment in each of the sub-sector, namely, generation, transmission and distribution, under an independent and transparent regulatory regime. The State Government have also been attaching considerable importance to tapping energy from non-conventional sources that are renewable and environment-friendly.

CONVENTIONAL SOURCES OF ENERGY- PRESENT POSITION OF DEMAND & SUPPLY

10.2 The present demand for power in the State consists of peak system demand of 3,200 MW and average system demand of 2,700 MW. This demand for energy is met from the following sources:

<table>
<thead>
<tr>
<th>Installed Capacity (MW)</th>
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<tbody>
<tr>
<td>(a) Hydro power generation (Odisha Hydro Power Corporation)</td>
</tr>
<tr>
<td>(b) Small Hydel Generation units</td>
</tr>
<tr>
<td>(c) Thermal Power Stations</td>
</tr>
<tr>
<td>(i) Ib Thermal Power Station (Odisha Power Generation Corporation)</td>
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<tr>
<td>(ii) Talcher Thermal Power Station (National Thermal Power Corporation)</td>
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<tr>
<td>(d) Central Allocation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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Power Sector Reforms

10.3 Odisha was the first State in the country for ushering in sweeping reforms in the power sector. The main objective of the power sector reforms is to provide consumers with reasonably cheap, reliable and assured supply of power. To achieve this end, the Odisha Electricity Reforms Act, 1995 was enacted in 1996. Under the reform process, three distinct functions of generation, transmission and distribution have been separated. All existing Hydro Power Stations at Hirakud, Balimela, Rengali, Kolab and Upper Indravati have been entrusted to a newly created entity, the Odisha Hydro Power Corporation (OHPC). Transmission and distribution activities have been entrusted to the Odisha Power Transmission Corporation Ltd (OPTCL) and Grid Corporation of Odisha (GRIDCO) respectively. Subsequently the distribution business has been handed over from 01.04.1999 to privately managed companies WESCO, NESCO, SOUTHCO and from 1.9.1999 to CESCO, which has been renamed as CESU recently. Odisha Power Generation Corporation was grounded in the year 1984 to look after the thermal power projects in the State.

10.4 The main objectives of the power sector restructuring process are:

(i) to relieve Government from the burden of providing financial support to the power sector,
(ii) to encourage private sector participation, and
(iii) to introduce efficiency and cost effectiveness in the newly created corporate entities such as GRIDCO and OHPC.

10.5 In order to achieve the desired objectives of the reforms under the Odisha Electricity Reforms Act, the Odisha Electricity Regulatory Commission (OERC) has been created. The Regulatory Commission is entrusted with the responsibility of promoting efficiency and economy as well as protecting interests of consumers. The Regulatory Commission determines the rates at which electricity shall be sold within the State. The tariff is determined on the basis of a public hearing.

10.6 As a part of the ongoing reform process, Government of Odisha have disinvested 49% of its share in OPGC and realized Rs.603.00 crore through such disinvestment. Further, in consonance with the Electricity Act, 2003 enacted by Govt. of India, the State Govt have entrusted the trading work to the existing GRIDCO and have set up the Odisha Power Transmission Corporation Ltd.(OPTCL) on 9th June 2005 to undertake transmission of power.

PLAN SCHEMES

10.7 A sum of Rs 2,53,015.00 lakh has been proposed in the Annual Plan: 2011-12 for implementation of various schemes under the conventional sources of energy sector. This includes a sum of Rs.53015.00 lakh for Government Schemes and Rs.2,00,000.00 lakh for schemes of Public Sector Undertakings, namely, Odisha Hydro Power Corporation(OHPC), Odisha Power Generation Corporation(OPGC) and Odisha Power Transmission Corporation Ltd. (OPTCL). The scheme-wise details are as follows.
STATE PLAN

Government Sector Schemes

Energy Conservation (Energy Department) (Rs.1,500.00 lakh)

10.8 Government of India is giving maximum thrust on Energy Conservation in the State through Bureau of Energy Efficiency (BEE), New Delhi for which matching grant will be provided by the State. A 19-point programme has been stipulated by BEE for execution of Energy Conservation scheme in Odisha. Accordingly, the State will have to undertake activities like creation of independent Internet platform for Energy Conservation, collection of data of designated consumers, accredited Energy Auditors, Survey & Monitoring of Energy Consumption, periodical meetings and training courses. Besides, with slight modification in Government Buildings, 30 % saving in electricity can be achieved with pay-back period of 2-3 years. A sum of Rs. 1,500.00 lakh is proposed in the Annual Plan: 2012-13 for this scheme.

Standard Testing Laboratory (Energy Department) (Rs.150.00 lakh)

10.9 The Standard Testing Laboratory, Bhubaneswar functioning under Energy Department, Government of Odisha is a prestigious Laboratory in the field of testing and calibration of electrical equipments and materials. It acts as an arbitration laboratory in case of dispute in the field of electricity. It also renders services to the neighbouring States like Jharkhand and Chhatisgarh. This laboratory was commissioned in 1998 and all its vital equipments need replacement due to advancement in technology and some more need to be procured. It is proposed to procure materials for equipping the Standard Testing Laboratory with upgraded technology. A sum of Rs.150.00 lakh is proposed in the Annual Plan: 2012-13 for this scheme which includes Rs.125.00 lakh for construction of Standard Testing Laboratory and Rs.25.00 lakh for construction of Record Rooms in the premises of EIC, Electricity-cum-PCI, Odisha, Bhubaneswar.

Accelerated Power Development and Reform Programme (APDRP) (Energy Department) (Rs.16.00 lakh)

10.10 Government of Odisha have signed a MoU with Government of India on 01.06.2001 for execution / modernization/ renovation of Power Projects and T&D systems in accelerated manner under “Accelerated Power Development Programme (APDP)”, which was launched in the country in 1999-2000 for giving financial assistance to the State for adopting reform process in Power Sector. This programme has subsequently been renamed as Accelerated Power Development & Reform Programme (APDRP) from 01.04.02 and its scope was modified. The private Distribution Companies are the implementing agencies for APDRP in the State. The objectives of APDRP are improvements of financial viability through loss reduction, improved consumer service, reliable and quality supply of power. It envisages metering
of feeder, distribution of transformers and energy auditing and accounting. Seven projects with estimated cost of Rs.592.22 crore have been approved by Government of India for implementation of APDRP Scheme in the State through DISTCOS. As per the APDRP guidelines, 50% of the project cost will be provided by Government of India in equal proportion of loan and grant, and the remaining 50% to be met by the implementing agencies either from their own resources or availing loan from any financial institution. A provision of Rs.16.00 lakh has been kept in the Annual Plan: 2012-13 under this programme.

**Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)** (Rs.3,920.00 lakh)  
*(Energy Department)*

10.11 Government of India has launched a scheme called “Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)” in April, 2005 in district sector under National Common Minimum Programme (NCMP) for providing electricity to households in 5 years. The scheme envisages 90% capital subsidy and the remaining 10% is deemed to be loan to State Government. The scheme will be executed by NTPC, NHPC and PGCIL. Under the scheme, 17,895 villages, 40,706 habitations and 31.8 lakh BPL houses are to be electrified at an estimated cost of Rs.3,594.00 crore. Funds amounting Rs.2,527.00 crore has been released by Government of India through the REC to NTPC, NHPC & PGCIL as on 15.10.2010.

10.12 A sum of Rs.3,920.00 lakh has been proposed in the Annual Plan: 2012-13 for repayment of loan under RGGVY as State Share.

**Biju Gram Jyoti Yojana (BGJY)** (Rs.15,000.00 lakh)  
*(Energy Department)*

10.13 Government of Odisha has launched a scheme called “Biju Gram Jyoti Yojana (BGJY)” under district sector in September, 2007 to cover all villages / habitations having population less than 100 following the decision of Government of India not to include those villages / habitations under RGGVY. The District Collectors have been put in charge of execution of the scheme. A new dimension of Biju Gram Jyoti Yojana under which Development Programme for Electrical System Improvement (DESI) has been launched by the Government is meant for rural electrification work. This initiative is taken up with funds flow under various schemes such as BRGF, GGY, Biju KBK Plan, IAP, Biju Kandhamal O Gajapati Yojana, Gopabandhu Gramin Yojana and WODC. A sum of Rs.15,000.00 lakh has been proposed in the Annual Plan: 2012-13 under the scheme.

**Shamuka Beach Project** (Rs.1.00 lakh)  
*(Energy Department)*

10.14 For electrification of Shamuka Beach Project the tentative requirement of OPTCL and CESU is nearly Rs.44.61 crore for construction 132/33 KV sub- station, feeder and up-gradation of 250 KV line, spreading over a period of 4 years. The entire outlay of Rs.330.00 for 2010-11 has been released in favour of Odisha power Transmission Limited as well as Central Electricity Supply Utilities for execution of the
work. A sum of Rs.1.00 lakh is proposed in the Annual Plan 2012-13 to meet the requirement of OPTCL/ CESU under the scheme.

**Electrification of Indian Institute of Technology (IIT) at Bhubaneswar**

(Rs.1.00 lakh)

10.15 Government of India has established one Indian Institute of Technology (IIT) at Bhubaneswar. The proposed place for IIT campus is at Argul in the district of Khurda. For providing power infrastructure like electricity connection, establishing grid sub-station, transformers and other ancillary works in the campus, there is a requirement of funds to the tune of Rs. 2,000.00 lakh covering a period of three years. An outlay of Rs. 1.00 lakh has been proposed in the Annual Plan: 2012-13 for the purpose.

**Biju Saharanachal Vidyutikaran Yojana (BSVY)**

(Rs.2,000.00 lakh)

10.16 After implementation of the Biju Gram Jyoti Yojana for electrification of villages / habitations having population less than 100 as well as BPL household electrification in rural areas, there is now demand from various quarters to extend the scheme to the Municipalities / NACs as similarly located habitations are also available in the Municipal / NACs areas for which Municipalities / NACs have no plan of action to provide electricity. There are some Municipalities / NACs which are almost equivalent to rural growth centres. The Municipalities / NACs are also not self-sufficient to provide electricity to those people. As a result people living in such Municipalities / NACs are deprived of access to electricity. Therefore, in order to fulfill the objective of providing electricity to the poor people living in the urban areas, the Government of Odisha has launched a new scheme “Biju Saharanachal Vidyutikaran Yojana” to take up electrification of habitations / yards within the Municipalities / NACs and provide connection to the BPL Household within these urban areas. Under the scheme, the yards / villages / slums within the limit of urban local bodies inside the State as well as BPL households will be electrified. There are 3 Municipal Corporations, 37 Municipalities and 63 NACs in our State. It has been decided in principle to provide Rs.1.00 crore for each Corporation, Rs.50.00 lakh for each Municipality and Rs.30.00 lakh for each NAC under this Scheme during the Year 2010-11. An amount of Rs.2000.00 lakh has been proposed in the Annual Plan: 2012-13 under the scheme.

**Share Capital Investment in OPTCL**

(Rs.5,000.00 lakh)

10.17 The State Government is to provide budgetary assistance to OPTCL @ Rs.60.00 crore per year for five years beginning from financial Year 2010-11 for taking up new transmission projects for implementation of power supply in the un-served areas of KBK/ Tribal Districts in the State. For implementation of the scheme, viz 25-30 nos. 220/132/33 KV and 132/33 KV Grid Sub- Stations in hilly, tribal...
and economically unviable areas, an amount of Rs.5,000.00 lakh has been proposed in the Annual Plan: 2012-13.

**Underground Cabling system for Grand Road & Puri Temple**  
(Rs.1.00 lakh)  
(Energy Department)

10.18 This is an ongoing scheme with total cost of Rs.1,796.00 lakh out of which Government have to provide Rs.996.00 lakh and CESU to provide Rs.800.00 lakh. State Government have already released Rs.900.00 lakh during 2011-12 under this scheme. An amount of Rs.1.00 lakh has been proposed in the Annual Plan: 2012-13 for implementation of the scheme.

**Construction of OERC Office Building (New)**  
(Rs.300.00 lakh)  
(Energy Department)

10.19 For construction of office building of Orissa Electricity Regulatory Commission, an outlay of Rs.300.00 lakh has been proposed in the Annual Plan: 2012-13.

**System Strengthening for Elephant Corridor (New)**  
(Rs.1.00 lakh)  
(Energy Department)

10.20 To prevent electrocution of elephants, Government have decided to strengthen electrical infrastructure in the elephant corridor area for which an outlay of Rs.1.00 lakh has been proposed in the Annual Plan: 2012-13.

**CAPEX PROGRAMME**  
(Rs.25,125.00 lakh)  
(Energy Department)

10.21 With an objective to improve T & D System, Establishment of reliable system, Reduction of Aggregate Technical and Commercial (AT & C) loss to a sustainable level and improvement of quality power supply to the consumers of the State, it has been approved for investment of Rs.2,400.00 crore in Distribution Sector including 13th Finance Commission Grant. Under the programme, State Government is to provide Rs.1,200.00 crore (including 13th Finance Grant of Rs.500.00 crore) to Distribution Companies as Loan through GRIDCO. The Distribution Companies have to arrange rest Rs.1,200.00 crore as their own share for this programme. During the current Financial Year, Rs.29,500.00 lakh has been provided which includes Rs.12,500.00 lakh of 13th Finance Commission Grants. The investment under the project in different years as decided in the 1st Monitoring Committee of CAPEX Programme is given in the table below.
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(\text{Rs. crore})

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
<th>2013-14</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Government</td>
<td>300.00</td>
<td>400.00</td>
<td>250.00</td>
<td>250.00</td>
<td>1,200.00</td>
</tr>
<tr>
<td>a) FC Grant</td>
<td>-</td>
<td>200.00</td>
<td>150.00</td>
<td>150.00</td>
<td>500.00</td>
</tr>
<tr>
<td>b) SS to FC grant</td>
<td>-</td>
<td>66.67</td>
<td>50.00</td>
<td>50.00</td>
<td>166.67</td>
</tr>
<tr>
<td>c) Loan to GRIDCO for counterpart</td>
<td>-</td>
<td>66.67</td>
<td>50</td>
<td>50.00</td>
<td>166.67</td>
</tr>
<tr>
<td>d) States own contribution</td>
<td>300.00</td>
<td>66.66</td>
<td>-</td>
<td>-</td>
<td>366.66</td>
</tr>
<tr>
<td>DISCOM</td>
<td>-</td>
<td>200.00</td>
<td>400.00</td>
<td>600.00</td>
<td>1,200.00</td>
</tr>
<tr>
<td>a) Counterpart DISCOM share for FC grant</td>
<td>-</td>
<td>66.67</td>
<td>50.00</td>
<td>50.00</td>
<td>166.67</td>
</tr>
<tr>
<td>b) DISCOM contribution</td>
<td>-</td>
<td>133.33</td>
<td>350.00</td>
<td>550.00</td>
<td>1,033.33</td>
</tr>
<tr>
<td><strong>Total Capex</strong></td>
<td>300.00</td>
<td>600.00</td>
<td>650.00</td>
<td>850.00</td>
<td>2,400.00</td>
</tr>
</tbody>
</table>

An outlay of Rs.25,125.00 lakh has been proposed in the Annual Plan: 2012-13 out of which Rs.12,500.00 lakh relates to 13th Finance Commission Grant & Rs.12,625.00 lakh relates to State Government Funds.

PSUs

\textbf{Odisha Hydro Power Corporation (OHPAC) Schemes} \quad (\text{Rs.9,500.00 lakh})

\text{(Energy Department)}

10.22 The Odisha Hydro Power Corporation was registered under the Companies Act on 21.4.95 and has been functioning with effect from 1.4.96. In pursuance of the Odisha Electricity Reforms Act, 1995, all hydel power projects of the State have been transferred to this Corporation for operation and maintenance. OHPC has also taken up the execution and completion of Upper Indravati Hydel Project and Potteru Small Hydro Electric Project. Besides, it has taken up renovation and modernisation of old Hydel Power Stations at Hirakud, Chiplima, Burla and Upper Indravati and expansion of Balimela Power Station by 2 more units of 75 MW each. A sum of Rs.9,500.00 lakh has been proposed in the Annual Plan: 2012-13 for OHPC projects as detailed below.

\textbf{(i) Renovation and Modernisation of Units I, II, III and Chiplima Power Station, Units V & VI, HHEP, Burla} \quad (\text{Rs.1,850.00 lakh})

10.23 For mobilizing advanced payment to the firm and procurement of Switchyard materials and renovation and modernization of Unit V & VI, HHEP, Burla, a sum of Rs.1,850.00 lakh is proposed in the Annual Plan 2012-13 under the Scheme.

\textbf{(ii) Small HEP Bargarh, Salandi, Kanpur} \quad (\text{Rs.50.00 lakh})

10.24 An amount of Rs.50.00 lakh has been proposed in the Annual Plan: 2012-13 for this scheme.
(iii) **Balijori and other projects, 200 MW** (Rs.600.00 lakh)

10.25 An amount of Rs.600.00 lakh has been proposed in the Annual Plan: 2012-13 for this scheme.

(iv) **Construction of Office Building of OHPC** (Rs.1,000.00 lakh)

10.26 An amount of Rs.1,000.00 lakh has been proposed in the Annual Plan: 2012-13 for construction of office building of Odisha Hydro Power Corporation Ltd.

(v) **Residential Quarters for the staff of OHPC** (Rs.500.00 lakh)

10.27 An amount of Rs.500.00 lakh has been proposed in the Annual Plan: 2012-13 for construction of residential quarters for the staff of OHPC.

(vi) **Investment in Joint Venture** (Rs.5,500.00 lakh)

10.28 OHPC and OMC’s JV Company will take up a new Thermal Power Project, under the umbrella of “OPTCL”. The proposed power plant have 2 units of 1,000 MW each. The estimated cost of the project shall be around Rs.11,00,00,000.00 lakh. The project cost will be shared in the ratio of 50:50 basis between OHPC & OMC. A sum of Rs.3,000.00 lakh has been proposed in the Annual Plan: 2012-13 under the scheme.

10.29 OHPC, Kerala State Electricity Board (KSEB) & Gujarat Power Corporation Ltd. (GPCL) has formed a joint venture company named Baitarani West Coal Company Limited (BWCCCL) having mining capacity of 15 million GTonne per annum. The estimated project cost is Rs.1,32,00,000.00 lakh. A sum of Rs.2,500.00 lakh has been proposed in the Annual Plan: 2012-13.

**Odisha Power Generation Corporation (OPGC) Schemes (Expansion Plan) (Energy Department)**

10.30 OPGC is contemplating to take up an expansion project with a capacity of 1,320 MW by setting up of two more units of 660 MW each. It will facilitate OPGC to supply 1300 MW of Power to GRIDCO. The project will be executed by OPGC team through the specially defined responsibilities. The project will be executed under turnkey basis by Engineering Procurement and Construction (EPC) contractors selected by OPGC through competitive bidding. The estimated project cost for proposed 2 x 660 MW Units works out to Rs.8,651 crore. The project cost includes all capital costs comprising the cost of additional land and land development, boiler and turbine island balance of plant and systems, civil works, erection, testing and commissioning and other plans and installation associated with the project. A sum of Rs.1,31,100.00 lakh has been proposed in the Annual Plan: 2012-13 for construction of units 3 and 4 of Ib Thermal Power Station (ITPS) at Banharpali.
Odisha Power Transmission Corporation Ltd. (OPTCL) Scheme
(Rs.59,400.00 lakh) (Energy Department)

10.31 Odisha Power Transmission Corporation (OPTC) Ltd. has emerged as a separate entity with effect from June, 2005 for intra-State transmission and to function as the State Load Despatch Centre. It has commissioned many Grid Substations and Transmission lines for quality and reliable power supply in the State. A sum of Rs.59,400.00 lakh is proposed in the Annual Plan: 2012-13 under OPTCL (PSU) Scheme for commissioning new transmission projects and upgradation of distribution system.

NON-CONVENTIONAL SOURCES OF ENERGY

10.32 Renewable sources of energy are of great importance. The thrust for development of renewable sources of Energy has been two folds i.e., fuel substitution and fuel conservation. This form of energy is also environment-friendly and ideal for development of rural, urban, backward and hilly/tribal areas through use of locally available energy sources. Biogas, solar energy, wind energy and biomass are non-conventional sources of energy and are economically efficient means for meeting the energy needs of villages located in remote and inaccessible areas. Government of Odisha has placed continued emphasis on other renewable resources especially on expanding wind power generation and in the emerging area of solar thermal and solar photovoltaic.

PLAN SCHEMES

10.33 An outlay of Rs.830.00 lakh has been proposed in the Annual Plan: 2012-13 for implementation of following schemes under the Non-Conventional Sources of Energy sector.

STATE PLAN

Odisha Renewable Energy Development Agency (OREDA) Administration
(Rs.30.00 lakh) (Science & Technology Department)

10.34 OREDA is promoting, executing, monitoring, planning, coordinating and evaluating various renewable energy sources in the State. To provide financial support to Biju Pattnaik Energy Park, a sum of Rs.30.00 lakh has been proposed for the year 2012-13 under the scheme.

Construction of Green Building at OREDA
(Rs.344.95 lakh) (Science & Technology Department)

10.35 OREDA is poised to attract investments in the renewable energy sector in the State from private firms and also through PPP mode. In the global energy scenario, OREDA fits in with Renewable Poser Obligation (RPO) / Clean Development Mechanism (CDM)/ Rural Electrification Corporation (REC) mechanism and can
transform itself to play bigger role in the national and international level. The campus is required to be provided with optimum supporting infrastructure and associated facilities like library, record room, conference hall, e-governance facilities, internet, fire safety, energy efficiency measures, water conservation, green compliance equipped with latest gadgets. Besides renewable energy option of bio-diesel and SPV power plan, solar passive architecture, integrated building management system etc. are required. For the purpose, an outlay of R.344.95 lakh has been proposed in the Annual Plan: 2012-13.

**National Biogas and Manure Management (NBMMP)**

10.36 The National Project on Biogas Development (NPBD) is a District Sector scheme and has become quite popular. It has been renamed as National Bio-Gas and Manure Management programme by Government of India. Government of India provides subsidy, turnkey fees, training facilities, and service charges for installation of biogas plants. A token provision of Rs.0.01 lakh has been proposed in the Annual Plan: 2012-13.

**Waste Recycling Resources Recovery System (WRRRS)**

10.37 This scheme, initiated by Government of India provides for construction of community biogas plants and institutional biogas plants. A token amount of Rs.0.01 lakh has been proposed in the Annual Plan: 2012-13.

**Improved Chullah**

10.38 The objective of the scheme is to provide high efficiency wood burning and smokeless improved chullah (both portable and fixed type) to the households for conservation of fire-wood and consequent reduction in deforestation and also for reduction in indoor pollution. A token provision of Rs.0.01 lakh has been proposed in the Annual Plan: 2012-13.

**Solar Photovoltaic (SPV) System**

10.39 The rural areas which are not yet electrified are covered under the scheme. The scheme is being implemented with the objective to promote use of SPV Systems such as street lighting system, home lighting system and solar lanterns as an alternative to the conventional grid for meeting the rural energy requirement. The Government of India provides additional subsidy and service charges under the scheme. An outlay of Rs.100.00 lakh has been proposed in the Annual Plan: 2012-13 for electrification of Tribal Schools and electrification of educational, health and office buildings under the scheme. Flow of funds to TSP is Rs.52.00 lakh.
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Research and Development  
(Rs.0.01 lakh)  
(Science & Technology Department)

10.40 Under this scheme, modifications and innovations are incorporated into existing renewable energy devices and systems with the support of pioneer institutions like Regional Research Laboratory, Bhubaneswar. For continuance of the existing research and developmental activities, a token provision of Rs.0.01 lakh has been proposed in the Annual Plan: 2012-13.

Promotion of Bio-diesel  
(Rs.0.01 lakh)  
(Science & Technology Department)

10.41 Bio-diesel has been accepted as a good-substitute of fuel, and is also eco-friendly and cost-effective. Bio-diesel is methyl or ethyl ester of fatty acids made from virgin or used vegetable oils, both edible and non-edible, as well as animal fats. It has the potential to replace the fossil diesel fully or partly. Karanj, Mahua, Polang, Kusum, Neem, Simarauba, Baigaba etc. have tremendous potential to support bio-diesel production in the State. Its large-scale production will bring about socio-economic upliftment of the farmers and entrepreneurs and would substantially save foreign exchange by reducing the import of fossil fuels. Further, this would also ensure “Energy security” in the country as the country’s fossil fuel reserves are estimated to last for another 21 years only. A token provision of Rs.0.01 lakh has been made in the Annual Plan: 2012-13.

Information Education and Communication (IEC) (New)  
(Rs.100.00 lakh)  
(Science & Technology Department)

10.42 IEC is meant for dissemination of information about various Renewable Energy Technologies and Programmes to all stakeholders. The purpose is to encourage the development and accelerated utilization of renewable energy sources wherever these are technically and economically viable. This would result in balanced rural and urban development as well as development of backward, hilly and tribal areas. An outlay of Rs.100.00 lakh has been proposed in the Annual Plan: 2012-13.

Industrial Park (New)  
(Rs.150.00 lakh)  
(Science & Technology Department)

10.43 The scheme is meant for establishment of Industrial Park in the State. A large number of developers are interested to set up renewable power projects based on solar, wind, biomass etc. in the State. In order to facilitate the developers by providing common infrastructure facilities in locations where the particular renewable energy sources would be available, a scheme for creation of such park is being introduced. An outlay of Rs.150.00 lakh has been proposed in the Annual Plan: 2012-13.
Renewable Energy Resource Assessment (New) (Rs.100.00 lakh) (Science & Technology Department)

10.44 The scheme has been introduced to explore the renewable energy resources of the State and to address the need for both climate change and energy security issues. It is very important to make realistic assessment of the renewable power potential and draw up a detailed plan to harness the same. An outlay of Rs.100.00 lakh has been proposed in the Annual Plan: 2012-13.

Electrification of un-electrified remote villages (New) (Rs.5.00 lakh) (Science & Technology Department)

10.45 Government of Odisha has given emphasis on 100 percent electrification of un-electrified remote census villages and remote un-electrified hamlets of electrified census villages where grid connectivity is either not feasible or not cost effective, through non-conventional energy sources. Government of India have closed the “Remote Village Electrification Programme (RVEP)” under CSP by the end of 11th Five Year Plan. For electrification of left out villages through non-conventional mode under State Plan, an amount of Rs.5.00 lakh has been proposed in the Annual Plan: 2012-13.

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