

CHAPTER - 13

ENERGY

13.1 About 60 percent area of the state is desert/semi desert characterized by low population density, long transmission and distribution lines with lesser load. The state is deficient in water resources and conventional resources of power generation like coal, oil and gas for undertaking new hydro power/thermal power generation schemes. However, there is vast potential for power generation from non-conventional energy sources like wind, solar and biomass, therefore, emphasis on renewable energy will supplement the electricity requirement of the State. The gross annual per capita consumption of electricity during 2007-08 of Rajasthan was 560.80 kwh as compared to all India average of 704.20 kwh.

13.2 State Government accords highest priority to power generation to become self-sufficient in power and minimize the gap between demand and supply. The installed capacity available to state is targeted to reach 10,000 MW. Efforts would be made to encourage public private partnership in power generation. The State Government is facilitating efforts to reduce the T & D losses to 20% within next five years. All villages and habitations would be covered by electrification and priority would be given to SC/ST colonies.

13.3 Efforts would be made to provide regular and continuous electricity to the farmers @ 8 hours per day on economical rates. Efforts would also be made to provide 24 hours domestic electricity in all villages as being provided in urban areas. Electricity connection to the BPL families of urban areas would be given only on Rs. 2,500/-. Under the Kutir Jyoti Yojna, free electric connection would be given to rural BPL families.

13.4 The Rajasthan Power Sector Reforms Act unbundled RSEB into one generation, one transmission and three distribution companies at Jaipur, Jodhpur and Ajmer. It also established the Rajasthan Electricity Regulatory Commission. The state is one of India's most advanced states in terms of metering and collections (more than 95% electricity is metered & sustained rate is also about 95%). Strengthening of power network is high priority area of the State Government.

13.5 Rajasthan, historically a power deficit state, has made significant strides in the power sector. These are:

- While states like Maharashtra & Delhi were reeling under power cuts, Rajasthan had a satisfactory power supply situation.
- The state already has an installed capacity of 6,702 MW (as on 31.01.2009) of power and will add around 5,698 MW by 2011-12 through state sector projects of 2,805 MW, 13.65 MW from shared projects, 1,800 MW of allocation from Central Sector projects and

1,080 MW from private sector projects. In addition to this around 1,381 MW is likely to be added from non-conventional projects.

- Besides setting up new state sector power projects, the State Government is also promoting private investment in power generation.
- Rajasthan is on course to become self sufficient in power.
- There are attractive opportunities for participation in the non-conventional energy sector. Rajasthan is fortunate to be blessed with abundant resources for non-conventional energy.
- Non-conventional energy units come under the 'Clean Development Mechanisms' under the Convention of Climate Change and investors stand to gain carbon credits, making it an attractive proposition.
 - Over 723 MW of non-conventional power is already being generated by private and public units in the State.
 - T & D losses are being brought down. By 2008-09, all 8,475 rural feeders will be covered, to reduce T & D losses by 25%.
 - 24 hours of domestic single phase supply is being assured.

13.6 Despite growth in connectivity, there are issues like unconnected households and low consumption of electricity that need to be improved. Agriculture accounts for about 41 percent and industry for over 31 percent of total consumption of electricity in the state. Though almost 75% of electricity consumers are domestic but they account for only 20 percent of the total consumption. Only 55 percent households have access to electricity. About 91 percent villages are connected but electrification has not penetrated adequately at the household level, therefore, 56 percent rural households are still unconnected. The number of customers is around 38.50 lakhs.

Strengths, Weaknesses, Opportunities & Threats Analysis

Strengths:

13.7 Generating company is handling 3,149.35 MW generation capacity most of which is at a very high level of efficiency (more than 90%).

- Track record of completing the generation projects ahead of the schedule.
- Strong commitment for additional generation capacity & conducive policy for captive generations.
- Low level of power & fuel purchase creditors
- Transmission system is very robust, higher revenue collection efficiency.

Weaknesses

- Staff strength is decreasing continuously due to retirement, as staff strength was frozen in 1981.
- Investment on Transmission & Distribution System is quite higher due to large geographical area.
- Weak financial position of distribution companies due to highly subsidised tariff for agriculture & domestic consumers and revenue from sale of electricity is not enough to cover the cost of the supply.

Opportunities

- Outsourcing of certain process may lead to improvement in overall efficiency.
- Joint Ventures, PPP, franchise models may enhance mobilisation of additional resources.
- Changing global market will lead to competition and enhance service standard.
- Captive generation through open access & use of sprinkler, drip irrigation, efficient pumps may reduce the demand supply gap.

Threats

- More than 50 percent consumers are getting electricity on subsidised rates. As per FRP, rationalization of tariff is required. If timely rationalisation of tariff is not done then sustained high T&D losses may adversely affect the economic viability of distribution companies.

13.8 The company-wise details of the outlays kept in the Eleventh Five Year Plan 2007-12, anticipated expenditure to be incurred in the Annual Plan 2008-09 and outlay proposed for these companies in the Annual Plan 2009-10 are as follows:-

Table No. 13.1

(Rs. in crores)

Company		Eleventh Plan Outlay	Actual Exp. 2007-08	Anticipated Exp. 2008-09	Proposed Outlay 2009-10
1	Raj. Vidyut Utpadan Nigam Ltd.	11443.00	2559.75	2930.00	3949.00
2	Raj. Vidyut Prasaran Nigam Ltd.	6600.00	623.94	825.00	1233.00
3	Jaipur Vidyut Vitran Nigam Ltd.	2680.00	766.02	1047.00	910.00
4	Ajmer Vidyut Vitran Nigam Ltd.	2432.00	914.80	881.00	734.00
5	Jodhpur Vidyut Vitran Nigam Ltd.	2435.00	729.72	776.00	657.00
Total		25590.00	5594.23	6459.00	7483.00

13.9 The outlays proposed in the Eleventh Five Year Plan 2007-12 for the different activities of the power companies, are as follows:-

Table No. 13.2

(Rs. in crores)

Particulars	RVUN	RVPN	JVVN	AVVN	JDVVN	Total
1. Generation	11443.00	80.00	-	-	-	11523.00
2. Transmission	-	3895.00	-	-	-	3895.00
3. Sub-Transmission	-	-	680.00	730.00	815.00	2225.00
4. WB Funded Works	-	625.00	740.00	775.00	360.00	2500.00
5. Normal RE	-	-	882.00	495.00	900.00	2277.00
6. Feeder Renovation Programme	-	-	50.00	180.00	80.00	310.00
7. RGGVY/AREP	-	-	328.00	252.00	280.00	860.00
8. Cash Support for FRP	-	2000.00	-	-	-	2000.00
Total	11443.00	6600.00	2680.00	2432.00	2435.00	25590.00

13.10 The outlays proposed in the Annual Plan 2009-10 for the different activities of the power companies, are as follows:-

Table No. 13.3

(Rs. in crores)

Particulars	RVUN	RVPN	JVVN	AVVN	JDVVN	Total
1. Generation	3949.00	20.00	-	-	-	3969.00
2. Transmission	-	1213.00	-	-	-	1213.00
3. Sub-Transmission	-	-	150.00	340.00	210.00	700.00
4. Normal RE	-	-	226.00	100.00	225.00	551.00
5. Feeder Renovation Programme	-	-	160.00	40.00	-	200.00
6. RGGVY/AREP	-	-	130.00	10.00	10.00	150.00
7. For promoting power efficient pump sets	-	-	100.00	100.00	100.00	300.00
8. Cash Support for FRP	-	-	144.00	144.00	112.00	400.00
Total	3949.00	1233.00	910.00	734.00	657.00	7483.00

RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LTD.

13.11 At present, Rajasthan Vidyut Utpadan Nigam owns & operates the following Thermal/ Gas Hydel power stations in the state sector. The capacity includes units commissioned up to December 2008.

Table No. 13.4

S. No.	Power Stations	Installed Capacity (MW)
1.	Suratgarh Thermal Power Station	1250
2.	Kota Thermal Power Station	1045
3.	Ramgarh Gas Power Plant	110.5
4.	Mahi Hydel Power Plant	140
5.	Mini Micro Hydel Schemes	23.85

S. No.	Power Stations	Installed Capacity (MW)
6.	Giral Lignite Thermal Power Plant Stage-I,Unit-I	125
7.	Dholpur Combined Cycle Gas Project (GT-I >-II & ST)	330
8.	Giral Lignite Thermal Power Plant Stage-I,Unit-II	125
	Total	3149.35

13.12 In addition to this, RVUN is managing and operating following two power stations, which are owned by RVPN:

1. Rana Pratap Sagar Hydel Power Stations	172 MW
2. Jawahar Sagar Hydel Power Stations	99 MW
Total	271 MW

13.13 Installation work of following power projects is under process.

Table No. 13.5

S. No.	Power Station	Capacity (MW)	Commissioning Schedule
1.	Chhabra Thermal Power Project Stage-I, Phase-I, Unit 1&2 (2x250 MW)	500	Mar.,09 & Sept., 09
2.	Kota Thermal Power Station Unit-7	195	Apr.,09
3.	Suratgarh Thermal Power Station Unit-6	250	Mar.,09
4.	Kalisindh Thermal Power Station, Jhalawar (2x600 MW)	1200	2011-12
5.	Chhabra Thermal Power Project Stage-I, Phase-II, Unit 3&4 (2x250 MW)	500	2011-12
	Total	2645 MW	

13.14 Funding sources for the activities of the Rajasthan Vidyut Utpadan Nigam Limited for the Revised Annual Plan 2008-09 and Annual Plan 2009-10 are as follows:-

Table No. 13.6

(Rs. in crores)

	Source	Revised Annual Plan 2008-09	Proposed Annual Plan 2009-10
1	State Equity	706.00	950.00
2	Loan from PFC/Commercial Bank	2224.00	2999.00
	Total	2930.00	3949.00

11.15 The revised outlay proposed for RVUN Ltd in the Annual Plan 2008-09 is Rs. 2,930 crores and the proposed outlays for Annual Plan 2009-10 is Rs. 3,949 crores; this would be utilized on the following projects as under:

Table No. 13.7

(Rs. in crores)

S. No.	Item / Project	Revised Outlay 2008-09	Proposed Outlay 2009-10
1	Dholpur Gas Thermal Power Project	148.00	-
2	Giral Lignite Thermal Power Project Stage-II	200.00	83.00
3	Chhabra Thermal Power Project Stage-I Phase-1	906.00	257.00
4	Kota Thermal Power Project Stage-V Unit-7	396.00	49.00
5	Suratgarh Thermal Power Project Unit-6	545.00	135.00
6	Chhabra Thermal Power Project Stage-I, Phase-2	250.00	750.00
7	Kalisind Thermal Power Project	450.00	1500.00
8	Ramgarh Gas Thermal Power Project Stage III 160 MW	-	250.00
9	Giral Lignite Thermal Power Project Stage-III (unit-3&4) 2x125 MW	-	130.00
10	Chhabra Thermal Power Project Stage-II (Unit-5&6) 2x660 MW	-	390.00
11	Suratgarh Thermal Power Project Stage V (Unit-7&8) 2x660 MW	-	390.00
12	Survey Investigation Schemes & carried over liabilities	35.00	15.00
	Total	2930.00	3949.00

13.16 Scheme-wise details are as follows:

Giral Lignite Thermal Power Project Stage II Unit-2 (1x125 MW)

13.17 Unit-II of the Lignite Based Thermal Power Project is being established at Giral district Barmer. RSMR has confirmed availability of lignite from Soneri mines. Land & water allocated for unit-I is adequate for the Unit-II also. Clearance from Ministry of Environment & Forest has been received. The boiler drum has been placed and further erection work is in progress. The project has been commissioned on 26.12.2008.

13.18 Estimated cost of the project is Rs. 750 crores, out of which Rs. 185 crores will be provided by the State Government as equity. Remaining capital cost will be arranged by resorting to borrowing from PFC. An expenditure of Rs. 200.00 crores is likely to be incurred during 2008-09; provision of Rs. 83.00 crores is proposed in the Annual Plan 2009-10.

Dholpur Gas Thermal Power Project Stage-I (3x110 MW)

13.19 330 MW combined cycle gas based thermal power plant has been established at Dholpur. The project comprises of 2x110 MW Gas Turbine Units & 1x110 MW Steam Turbine Unit. All these units have been commissioned on 29.3.2007, 16.6.2007 and 28.12.2007 respectively. Commercial Operation Date (COD) of the project has been declared on 01.03.2008.

13.20 Gas supply agreement has been signed with ONGC for providing 1.5 mm SCMD gas from the Panna-Mukta Tapti fields. Gas is being transported to site on HBJ pipeline for which agreement has been signed with GAIL. Total cost of the project is Rs. 1155 crores, out of which 30% share i.e. Rs. 347 crores has been provided by the State Government as equity and remaining 70% capital cost has been arranged by resorting to borrowing from PFC. The likely expenditure to be incurred during Annual Plan 2008-09 is Rs. 148.00 crores to meet complete liabilities.

Chhabra Thermal Power Project Stage-I Phase 1, Unit-1&2 (2x250 MW)

13.21 2x250 MW Thermal Power Project Stage-I is being established at Chhabra district Baran. 526 hectare land has been made available for the project. Water Resources Department has agreed to provide 500 mcft water from Baithali dam, Hindloth dam and anicuts on Parvati river. All statutory clearances have been obtained. The boiler drum of unit has been placed and unit-2 on 26.11.07. Further evocation work is in progress. First unit of the project is targeted for commissioning by March, 09 and the second unit by September, 2009.

13.22 Estimated cost of the project is Rs. 2350 crores, out of which 20% of the capital cost i.e. Rs. 470 crores is being arranged as state equity. Balance amount of the capital cost shall be arranged by resorting to borrowing from PFC. An expenditure of Rs. 906.00 crores is likely to be incurred during 2008-09; provision of Rs. 257.00 crores is proposed in the Annual Plan 2009-10.

Kota Thermal Power Station Unit-7 (1x195 MW)

13.23 All statutory clearances have been obtained to establish unit-7 of 195 MW at Kota Thermal Power Station at Kota. Available land & water at KTPs are adequate for Unit-7 also. Orders for main equipment package & composite balance plant package have been placed. The boiler drum of the unit works placed. Other evacuations work is in progress. Commissioning of the project is targeted by April, 2009.

13.24 Estimated cost of the project is Rs. 880 crores, out of which 20% of capital cost i.e. Rs. 176 crores is to be provided by the State Government as equity, balance capital cost is being arranged by resorting to borrowing from PFC/NCR Planning Board. An expenditure of Rs. 396.00 crores is likely to be incurred during 2008-09; provision of Rs. 49.00 crores is proposed in the Annual Plan 2009-10.

Suratgarh Thermal Power Station Unit-6 (1 x 250 MW)

13.25 All statutory clearances for establishing 1 x 250 MW Suratgarh Thermal Power Station Unit-6 has been obtained. Available land and water at STPS are adequate for the unit-6 also. Orders for main equipment package and composite balance of plant package have been placed. The boiler drum of the unit works has been placed and other

erections work is in progress. The foundation work of main boiler and ESP area has been completed and erection work is in progress. Commissioning target of the project is March, 2009.

13.26 Estimated cost of the project is Rs. 1117.00 crores, out of which 20% i.e. Rs. 225.00 crores is to be made available by the State Government as equity. Remaining capital cost shall be arranged by resorting to borrowing from PFC. An expenditure of Rs. 545.00 crores is likely to be incurred during 2008-09; provision of Rs. 135.00 crores is proposed in the Annual Plan 2009-10.

Chhabra TPP Stage I Phase 2, Unit-3 & 4 (2x250 MW)

13.27 The State Govt. has also accorded 'Administrative & Financial' approval on 31.01.07 for taking up of 2x250 MW coal based thermal Power Station at Chhabra under Stage I phase 2. Land and water allocation for the project are available. Stack height clearances from Air Port Authority of India & Ministry of Defence have been received. MOEF has also granted environment clearance for the project.

13.28 A captive coal block 'Parsa East and Kanta Basan' in Chhatisgarh State has been allotted by Ministry of Coal, GOI for the project. Order has been placed for main package and advanced released. Order has been placed for BOP package and advanced released. The project is targeted for commissioning by 2011-12.

13.29 Estimated cost of the project is Rs. 2200.00 crores, out of which 20% i.e. Rs. 440.00 crores is to be made available by the State Government as equity. Remaining capital cost shall be arranged by resorting to borrowing from PFC. An expenditure of Rs. 250.00 crores is likely to be incurred during 2008-09; provision of Rs. 750.00 crores is proposed in the Annual Plan 2009-10.

Kalisindh Thermal Power project (2x600 MW)

13.30 The State Govt. has accorded 'Administrative & Financial' approval on 06.06.07 for taking up a new coal based thermal Power Station having capacity of 2x600 MW at Kalisindh in Distt. Jhalawar. All statutory clearances have been received except Environmental Clearance. State's Revenue Department has allotted 835 Bigha government land for the project. Acquisition of 1387 Bigha private land has been approved.

13.31 1200 mcft. water allocation has already been confirmed by Irrigation Department from proposed Kalisindh Dam. Power evacuation system has been finalized. A captive coal block 'Parsa East and Kanta Basan' in Chhatisgarh State has been allotted by Ministry of Coal, GOI for the project. The project is targeted for commissioning by 2011-12.

13.32 Estimated cost of the project is Rs. 4600.00 crores, out of which 20% i.e. Rs. 920.00 crores is to be made available by the State Government as equity. Remaining capital cost shall be arranged by

resorting to borrowing from PFC. An expenditure of Rs. 450.00 crores is likely to be incurred during 2008-09; provision of Rs. 1500.00 crores is proposed in the Annual Plan 2009-10.

Ramgarh Gas TPS Stage III (160 MW)

13.33 The State Govt. has also accorded 'Administrative & Financial' approval on 13.08.08 for taking up of 160 MW gas based extension project at Ramgarh, Jaisalmer under Stage III. The project shall comprise of 110 MW capacity of Gas Turbine (GT) and 50 MW capacity of Steam Turbine (ST). Initial activities of arranging statutory clearances have been initiated. The project is targeted for commissioning by 2011-12.

13.34 Estimated cost of the project is Rs. 640.00 crores, out of which 20% i.e. Rs. 128.00 crores is to be made available by the State Government as equity. Remaining capital cost shall be arranged by resorting to borrowing from PFC. A provision of Rs. 250.00 crores is proposed in the Annual Plan 2009-10.

New Power Projects

13.35 Besides the above projects, the State Govt. has accorded 'in-principle' approval for the following new power projects in the State sector to be executed by RVUN, which shall be commissioned in the 12th Plan :-

S. No.	Name of the Project	Capacity
1.	Chhabra TPP Extension Project Stage II (unit 5 & 6) at Distt. Baran	2x660 MW
2.	Suratgarh TPS Extension Project Stage V (unit 7 & 8) at Distt. SriGanganagar	2x660 MW
3.	Giral Lignite TPP Extension Project Stage III (unit 3 & 4) at Distt. Barmar	2x125 MW

13.36 Initial activities of arranging statutory clearances for these projects have been initiated. Plan provision for the year FY 2009-10 for these projects has been proposed as under:-

S. No.	Name of the Project	(Rs. in Crores)		
		FY 2009-10		
		Equity	Loan	Total
1.	Chhabra TPP Extension Project Stage II (unit 5 & 6)	150	240	390
2.	Suratgarh TPS Extension Project Stage V (unit 7 & 8)	150	240	390
3.	Giral Lignite TPP Extension Project Stage III (unit 3 & 4)	60	70	130

13.37 A plan provision of Rs. 15.00 crores in the year FY 2009-10 has also been kept towards Survey & Investigation (S&I) for the new projects & carried over liabilities, etc.

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13.38 The resources envisaged for financing the outlays of the Rs. 6600.00 crores for the Prasaran Company in the Eleventh Five Year Plan. An expenditure of Rs. 825.00 crores is likely to be incurred in the year 2008-09 and Rs. 1,233.00 crores is proposed in the Annual Plan 2009-10. Break-up of the resources are as follows:-

Table No. 13.8

(Rs. in crores)

	Resources	Eleventh Plan Outlay	Anticipated Exp. 2008-09	Proposed Outlay 2009-10
1	Bonds	450.00	-	-
2	LIC	250.00	50.00	180.00
3	Rural Electrification Corporation	1230.00	306.00	410.00
4	PFC/Commercial Banks	1256.00	304.00	403.00
5	World Bank	500.00	-	-
6	State Equity	914.00	165.00	240.00
7	Transition support for FRP	2000.00	-	-
	Total	6600.00	825.00	1233.00

13.39 These outlays are proposed to be utilized on the following activities:-

Table No. 13.9

(Rs. in crores)

	Resources	Eleventh Plan Outlay	Anticipated Exp. 2008-09	Proposed Outlay 2009-10
1	Generation (Shared Generating Project)	80.00	10.00	20.00
2	Transmission (on going & New works)	4520.00	815.00	1213.00
3	Transition support for FRP	2000.00	-	-
	Total	6600.00	825.00	1233.00

Generation (Shared Generating Projects)

Survey & Investigation of New Projects and Preliminary Expenses

13.40 A provision of Rs.1.00 crore is proposed to be kept during the year 2009-10 for making payment for S&I works and for preliminary expenses for interstate new projects. This provision can be utilized for expenses towards S&I works of new projects and Environment Impact Assessment Studies, and other departmental works as per terms and conditions of

Central Water Commission and WAPCOS respectively for Chambal Development Plan (Phase-II) (commonly known as Rahu Ghat Hydro Electric Project)

Bhakhra Beas Management Board Works

13.41 A total provision of Rs.19 crores is proposed during the year 2009-10 for up rating of Bhakra Left Bank, and for other Capital Works of BBMB. This provision is for the Rajasthan's Share in Modernization works.

Transmission

13.42 A total provision of Rs.1213 crores is proposed for Transmission works during the year 2009-10. At present work on evacuation system of Chhabra TPS (Stage-I, Phase-I), Suratgarh TPS (Unit-6), Rajwest LTPS, Barsingsar TPS & Wind Farm Projects is in full swing. The work on evacuation system of Chhabra TPS (Stage-I, Phase-II) and Kalisindh TPS will be started in 2009-10. The NITs for 400kV lines related to Kalisindh TPS evacuation system have been issued and tenders have been opened. Recently a scheme for upgradation of 132 kV GSS at Puranaghat (Jaipur) to 220 kV GSS has been approved. This scheme has been included in Annual Plan 2009-10 as new start scheme.

13.43 With this, at present 6 Nos. of 400 kV GSS, 18 nos. of 220kV GSS and 64 Nos. of 132kV GSS approved under various evacuation schemes and for system strengthening are under execution. These schemes are scheduled to be commissioned from 2008-09 to 2010-11. Work on various evacuation schemes are required to be completed matching with commissioning of generating projects. More transmission schemes relating to forthcoming generating stations and for expansion of transmission system are likely to be approved in balance period of 2008-09 and in 2009-10 for execution which will be included in Annual Plans for execution at the time of revision.

13.44 Targets for the Eleventh Five Year Plan 2007-12, actual achievements in the Annual Plan 2007-08, likely achievements of the Annual Plan 2008-09 and proposed targets for Annual Plan 2009-10 are as follows:-

Table No. 13.10

S. No.	Head of Scheme	Unit	Eleventh Plan Target	Actual Ach. 2007-08	Likely Ach. 2008-09	Proposed Target 2009-10
I	400 KV Lines	Km	2445	295	600	500
	400 KV Substations	MAV	2205	-	-	945
	400 KV Substations	No.	7	-	-	3
II	220 KV Lines	Km	2950	433	450	500
	220 KV Substations	MVA	2600	250	500	500
	220 KV Substations	No.	26	3	5	5

S. No.	Head of Scheme	Unit	Eleventh Plan Target	Actual Ach. 2007-08	Likely Ach. 2008-09	Proposed Target 2009-10
III	132 KV Lines	Km.	1750	234	450	350
	132 KV Substations	MVA	1875	300	300	425
	132 KV Substations	No.	75	12	12	15
IV	Augmentation	MVA	5000	521	1100	750

DISTRIBUTION COMPANIES

13.45 The details of resources envisaged for financing the outlays of Rs. 2704.00 crores kept in the Revised Annual Plan 2008-09 are as follows:-

Table No. 13.11

(Rs. in crores)

Resources	Revised Outlay - Annual Plan 2008-09			
	Jaipur	Ajmer	Jodhpur	Total
1. LIC	80.00	70.00	50.00	200.00
2. Normal RE	137.00	97.00	311.00	545.00
3. Feeder Renovation Programme	-	40.00	-	40.00
4. RGGVY/AREP	149.00	100.00	-	249.00
5. State Equity	235.00	120.00	110.00	465.00
6. PFC/Comm. Banks	212.00	220.00	123.00	555.00
7. Transition Cash Support	144.00	144.00	112.00	400.00
8. Additional Power Purchase	90.00	90.00	70.00	250.00
Total	1047.00	881.00	776.00	2704.00

13.46 The details of resources envisaged for financing the outlays of Rs. 2301.17 crores proposed in the Annual Plan 2009-10 for distribution companies are as follows:-

Table No. 13.12

(Rs. in crores)

Resources	Proposed Outlay - Annual Plan 2009-10			
	Jaipur	Ajmer	Jodhpur	Total
1. LIC	65.00	80.00	80.00	225.00
2. Normal RE	206.00	94.00	285.00	585.00
3. Feeder Renovation Programme	-	40.00	-	40.00
4. RGGVY/AREP	150.00	10.00	-	160.00
5. State Equity	140.00	110.00	100.00	350.00
6. PFC and Commercial Banks	205.00	256.00	80.00	541.00
7. Transitional Cash Support	144.00	144.00	112.00	400.00
Total	910.00	734.00	657.00	2301.00

13.47 Proposed outlays for various activities of the Distribution Companies in the Annual Plan 2008-09 are as follows:-

Table No. 13.13

(Rs. in crores)

Schemes	Proposed Outlay - Annual Plan 2008-09			
	Jaipur	Ajmer	Jodhpur	Total
1. Sub Transmission	221.00	407.00	289.00	917.00
2. WB Funded Works	241.00	-	-	-
3. Normal Rural Elect.	200.00	100.00	150.00	491.00
4. Feeder Renovation Programme	200.00	40.00	30.00	270.00
5. RGGVY/AREP	151.00	100.00	125.00	376.00
6. Transitional Cash Support	144.00	144.00	112.00	400.00
7. Additional Power Purchase	90.00	90.00	70.00	250.00
Total	1047.00	881.00	776.00	2704.00

13.48 Proposed outlays for various activities of the Distribution Companies in the Annual Plan 2009-10 are as follows:-

Table No. 13.14

(Rs. in crores)

Schemes	Proposed Outlay Annual Plan 2009-10			
	Jaipur	Ajmer	Jodhpur	Total
1. Sub Transmission	150.00	340.00	210.00	700.00
2. Normal Rural Elect.	226.00	100.00	225.00	551.00
3. Feeder Renovation Program	160.00	40.00	-	200.00
4. RGGVY/AREP	130.00	10.00	10.00	150.00
5. For promotional Power efficiency pump sets	100.00	100.00	100.00	300.00
6. Transitional Cash Support	144.00	144.00	112.00	400.00
Total	910.00	734.00	657.00	2301.00

Feeder Renovation Programme

13.49 The distribution system suffers from very high losses as well as poor quality of infrastructure. The present distribution losses in the state are as high as 40 percent. A massive Feeder Renovation Programme has been launched for renovation of distribution feeders to bring down T&D losses. Under this programme higher capacity existing 11/0.4 KV transformers on rural feeders are being replaced by 25 KVA with meter inbuilt transformers and the LT Lines will also be replaced by insulated AB Cables. Under FRP length of 11 KV Lines will be increased and for individual agriculture connection separate L.T. Line from distribution transformer is to be drawn upto the maximum length of 270 meter.

13.50 The main objectives of this programme are as follows:

1. Reduce T&D losses & burning rate of transformers
2. Providing reliable power supply to all
3. Reduction of peak demand in agriculture season.

13.51 A provision of Rs. 200.00 crores is proposed in the Annual Plan 2009-10 for Feeder Renovation Programme of all the distribution companies.

Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY)

13.52 The Government of India has launched the scheme of RGGVY in April 2005. As per this scheme, all the villages/hamlets will have to be electrified during the next 5 years and provide access of electricity to rural households including BPL families. Connections to BPL families will be given free of cost. 90% of the cost of the scheme would be released as grant where 10% as loan. Rural Electrification Corporation has been designated as Nodal Agency for implementation of this programme.

13.53 A provision of Rs. 150.00 crores is proposed for all Discoms for this scheme in the Annual Plan 2009-10.

RAJASTHAN RENEWABLE ENERGY CORPORATION

13.54 Rajasthan Energy Development Agency and Rajasthan State Power Corporation Ltd. have been merged in 2002 to form a new Corporation namely Rajasthan Renewable Energy Corporation (RREC) is responsible for development of non-conventional energy sources in the State. The main objective of power sector under RREC during Eleventh Five Year Plan will be to ensure the followings-

- Rural Electrification through SPV domestic Lighting System.
- Remote village electrification
- Reducing the burden on conventional electricity in city/towns.
- Installing the wind energy plant.
- Generating energy through biomass power sector.

13.55 A provision of Rs. 1625.00 lakhs has been kept for the corporation in the Eleventh Five Year Plan 2007-12. A provision of Rs. 97.00 lakhs is proposed for the Corporation in the Annual Plan 2009-10 for rural electrification and grants for establishment expenses.

Rural Electrification

13.56 There are still a large number of un-electrified villages in the state. These villages are located in remote areas and sparsely populated due to which cost of electrification of these villages is very high. Therefore, these villages are economically illuminated through Solar Photo-Voltaic Domestic Lighting System (DLS).

13.57 State Government is providing a subsidy of Rs. 4550/- for installing a DLS. State has achieved targets of installation of 89,000 Nos SPV DLS (Model-II) in the State. It is proposed to provide subsidy of Rs. 1125.00 lakhs for installing 24725 DLS during the Eleventh Five Year Plan and Rs. 97.00 lakhs for 2131 DLS during the Annual Plan 2009-10.