

POWER

There is no major power Generation in the Union Territory of Puducherry. The power requirement of Union Territory is being met by availing share of power from the Central Generating Stations and purchasing power from neighbouring State Electricity Boards. However, the State owned Pondicherry Power Corporation Limited has established 32.50 MW Combined Cycle Gas Power Plant at Karaikal and power thus generated is being utilized to meet a part of the power demand of Karaikal region. The present power requirement of the UT of Puducherry is 446 Mega watts against the total power allocation of 500 Mega watts, which shows that the UT of Puducherry is enjoying with sufficient quantum of power to meet the growing power demand of this UT at present without resorting to any power cut. It is anticipated that the present power demand may goes upto 688 Mega watts by the end of Twelfth Five Year Plan. Additional allocation of power has been sought for from various Central Generating Stations. On allocation of which, the entire power requirement of the UT of Puducherry by the end of the Twelfth Five Year Plan will be met with. In addition to the above, the Pondicherry Power Corporation Limited has also proposed to expand the existing Gas Power Plant by 100 MW during the Twelfth Five Year Plan period and is waiting for the firm allocation of gas from the Gas Authority of India Limited to proceed further with the expansion programme. In order to maintain reliable and stable power supply, it has been proposed to provide improved power distribution network of high reliability with least Transmission and Distribution losses. To cater to the load requirement and to maintain high degree of Reliability of supply, it has been proposed to establish a 230 /110 KV Sub-station at Polagam and a 110 / 11 KV Sub-station at Kottucherry in Karaikal region and four number of EHV Sub-stations one each at Vengatta Nagar, Lawspet, Thavalakuppam and P.S.Palaym at Puducherry region during the Twelfth Five Year Plan. In addition to the establishment of new EHV Sub-stations, it has also been proposed to augment the existing transformation capacity of five EHV Sub-stations in the U.T of Puducherry.

ACHIEVEMENTS DURING 2007-11

- For the establishment of 230/110 KV Auto Sub-station at Thondamanatham and associated lines, construction of Control room is under progress, all the 196 Nos. of Towers and equipment foundations were completed under 230 KV side and under 110 KV side, out of 217 Nos. of Towers, 208 Nos. of Towers were completed, 1500 Mtr of earth mat were laid, 91 LAP joints, 43 Nos. of T joints, were also completed. Two Nos. of Power Transformers were erected in plinths and major materials were arrived at site. 14.570 Kms of 230 KV LILO lines from 400/230 KV Ramanadhapuram Sub-station to Villianur and Bahour 230/110 Auto Sub-stations were energised on 20.9.2010.
- Renovation and Modernisation of 110/22 KV Kurumbapet Sub-station was completed and commissioned in August 2008.
- Augmentation of 132/11 KV Sub-station by erecting an additional 16 MVA, 132/33 KV Power Transformer was completed and commissioned on August 2008.
- Regarding Renovation and Modernisation works at Villianur 110/22 KV Sub-station, 10 Nos of Tower foundation works and 29 Nos. of Equipment foundation works on 110 KV side and 9 Nos of Tower foundation works on 22 KV side were completed, construction of control room is under progress and major materials were also received at site.
- Erection of 110 KV lines: LILO of 2.190 Kms of 110 KV Sederapet-Kurumbapet line works were completed. Similarly, LILO of 6.470 Kms of 110 KV Thethampakkam 110 KV line works were almost completed and is anticipated to be completed by the end of March 2012.
- Establishment of 110/11 KV Vengatta nagar Sub-station: The erection work has been entrusted with work has been awarded to M/S Power Grid Corporation of India Limited (A Government of India Enterprise). Preliminary works are under progress.
- Providing of back up relays for Tie-up of 110 KV Transmission networks were completed.
- Under Sub-transmission schemes, the following achievements have been made:

Sl No	Description	Unit	Target during 2007-11	Achievements during 2007-11
1	New Transformer energised	Nos	310	269
2	Transformer enhanced	Nos	263	195
3	HT line	Kms	72.000	78.892
4	LT line	Kms	230.000	292.237
5	Strengthening of HT line	Kms	18.000	30.582
6	Strengthening of LT line	Kms	102.000	117.140
7	HT Industrial service	Nos	40	46
8	LT Industrial service	Nos	440	447
9	Agricultural service	Nos	140	200
10	Domestic service	Nos	33000	41668
11	Commercial service	Nos	4400	4590
12	OHOB service – OC	Nos	1740	956
	SC	Nos	910	569
	Total	Nos	2650	1525
13	Street lights - OC	Nos	4340	2911
	SC	Nos	800	355
	Total	Nos	5140	3266
14	Conversion of St. lights	Nos	500	1031
15	UG cable laid	Kms	15.400	8.521
16	UG cable laid	Kms	126.000	107.594
17	Conversion of OH services	Nos	6400	3268
18	Conversion of OH St. lights	Nos	500	421
19	Pillar Box	Nos	75	101
20	Switch gear	Nos	40	43
21	Erection of 11 KV Transformers	Nos	10	5
22	Enhancement of 11 KV Transformers	Nos	10	5

- 124 staff were given internal training and 14 numbers of Engineers and 20 numbers of staff were also given external training under Human resources development scheme.
- Spot billing systems were introduced in parts of Villianur, Kalapet, Thiruvandar Koil, Vadhanur, Thavalakuppam, Vadamangalam, Kariamanikkam,

Karikalampakkam, Karayambuthur, and Bahour, Sub-urban collection centres were computerised, existing network and computer systems were upgraded, additional computer systems like personal computers with CD drive, Dot Matrix, Line Matrix, and Laser printers, UPS units, hand held devices for billing system, Multi function printers, Digital duplicator, Data processing forms and computer consumables were procured.

- Scientific instruments and Trivector meters were tested and calibrated, periodical testing were conducted in all equipments and panels in EHV sub-stations, HT/LT Trivector meters were tested at site, electro mechanical meters were converted into static meters in all HT and in major LT industrial services and datas were down loaded from the energy meters in HT industries for analysis.

LIKELY ACHIEVEMENTS DURING 2011-12

- Establishment of 230/110 KV Thondamanatham Sub-station is anticipated to be commissioned by the end of March 2012.
- Strengthening of 12.500 Kms of 110 Villianur-Bahour line is anticipated to be commissioned by the end of March 2012.
- LILO of 6.470 Kms of 110 KV Thethampakkam-Thirubuanai lines is anticipated to be commissioned by the end of March 2012.
- To energize 40 numbers of new distribution transformers of various capacities and to enhance 30 numbers of existing distribution transformers to higher capacities.
- To erect and commission 12.000 Kms of new HT lines and 25.000 Kms of new LT lines and to strengthen 3.000 Kms of existing HT lines and 15.000 Kms of existing LT lines.
- To energize 10 numbers of new HT industrial services and 100 numbers of new LT industrial services
- To effect 8500 numbers of new domestic services, 1000 numbers of new commercial Services, 25 numbers of new agricultural services and 100 numbers of new OHOB services.
- It is also proposed to energize 400 numbers of new Street Lights.
- In addition, it is also proposed to lay 5.000 Kms of new HT cables and 30.000 Kms of new LT cables to convert 650 numbers of OH services and 75 numbers of OH street lights into UG cable system. Further it is anticipated to erect 5 Nos of

11 KV distribution transformers and to enhance 2 Nos of distribution transformers into higher capacities under UG cable system.

- It is also proposed to procure additional computer systems and printers for the development of Intra departmental Intranet pages within the department, introduction of the spot billing systems in parts of Kirumampakkam, Bahour and Karayambuthur.
- It is also proposed to computerize sub-urban collection centres, establishment of Call centre for attending Fuse off call complaints round the clock under R-APDRP scheme, implementation of R-APDRP project in the urban areas of all the four regions of the UT of Puducherry.
- It is proposed to impart internal training to 50 Nos of Officers and 55 Nos of staff.
- Renovation of Stores buildings at Electricity Main Office in Puducherry, Construction of Staff quarters and O&M Office buildings in Puducherry, Modification of the existing room into a record room in the second floor of the division office at Kirambu Thottam Street, Karaikal, Construction of compound wall around the quarters providing cement flooring in front of the quarters building and providing grill gate, Special repairs and improvements to 6 Nos of Type "E" and 4 Nos of Type "F" quarters at 110 KV Sub-station at Palloor, Mahe, Construction of additional building to accommodate Bill Collection centre at the office of the Assistant Engineer O&M, Yanam

PROPOSED TARGETS FOR 2012-13

- Establishment of 110/22 KV Sub-station at Thondamanatham.
- Augmentation of 110/22 KV Sub-station at Thethampakkam with 2X16 MVA Power Transformers.
- Augmentation of 110/22 KV Sub-station at Villianur with 3X16 MVA Power Transformers.
- Providing of additional Capacitor banks at Kurumbapet and Marapalam EHV Sub-stations.
- Renovation and Modernisation works are to be carried out in Villianur and Sorakudi EHV Sub-stations.
- Establishment of 110/22 KV Sub-station at Lawspet with 2X25 MVA Power Transformers.

- Establishment of 110/22 KV Sub-station at Thavalakuppam with 2X25 MVA Power Transformers.
- Augmentation of 110/22 KV Sub-station at Kurumbapet with 2X25 MVA Power Transformers.
- Erection of Sub-station bay and extension of line at Eripakkam 110/22 KV Sub-station.
- Carrying out of improvement works at Marapalam EHV Sub-station and augmentation with erection of additional 25 MVA Power Transformer.
- Erection of one more 16 MVA Power Transformer at Thirubuanai Sub-station.
- In order to maintain reliable power supply in Puducherry region, it has been envisaged to commission the new 230 KV line I & II between the proposed 400 KV sub-station and the proposed Thondamanatham 230 KV sub-station to facilitate drawal of power from the proposed 400 KV sub-station.
- To meet the power requirement of Puducherry town areas, it is proposed to establish a new 110/11 KV Sub-station at Vengatta Nagar and laying of 110 KV UG cables from Marapalam EHV Sub-station.
- Completion of the Renovation and Modernisation works at Villianur 110/22 KV Sub-station.
- Strengthen the 110 KV Villianur-Bahour line.
- Augmentation of 110/22 KV Kurumbapet Sub-station by erecting an additional 25 MVA Power Transformer.
- Renovation and Modernisation works are to be carried out in Marapalam, Thirubuanai and Sorakudi EHV Sub-stations.
- Acquisition of lands for the establishment of Lawspet and Thavalakuppam EHV Sub-station and additional lands for Kurumbapet EHV Sub-stations.
- Commencement of preliminary works for the erection of 110/22 KV Lawspet and Thavalakuppam EHV Sub-stations.
- Commencement of preliminary works for the erection of 230/110 KV Sub-station with associated 230 KV and 110 KV lines for Polagam Sub-station.
- It is proposed to make payment to PGCIL for the augmentation works at Kurumbapet EHV Sub-station, Renovation and Modernisation works at Villianur, Marapalam, Thirubuanai and Sorakudi EHV Sub-stations, Renovation and Modernisation of Capacitor banks in all EHV Sub-stations, Establishment of 110/22 KV Sub-station at Lawspet and Thavalakuppam, strengthening of 110 KV

Villianur-Marapalam Line, erection of 110 KV line for Polagam Sub-station and for the establishment of 110/11 KV Vengatta nagar Sub-station and Bay extension of the existing Marapalam EHV Sub-station and laying of 110 KV UG cable between the above Sub-stations. It is proposed to make balance payment to PGCIL towards the establishment of 230/110 KV Thondamanatham Sub-station and line works.

- It is proposed to energise 40 numbers of new distribution transformers of various capacities and enhance the capacity of 30 numbers of existing distribution transformers.
- To erect 12.000 Kms of new HT lines and 25.000 Kms of new LT lines and also strengthen 3.000 Kms of existing HT lines and 15.000 Kms of existing LT lines.
- With the completion of the above, it is proposed to connect 8500 numbers of domestic services, 1000 numbers of commercial services, 25 numbers of agricultural services, 10 numbers of HT Industrial services, 75 numbers of LT Industrial Services and 30 numbers of OHOB services.
- It is also proposed to lay and energize 5.000 Kms of new HT cables and 30.000 Kms of new LT cables, to energise 5 Nos. of 11 KV distribution transformers, to enhance 5 Nos. of distribution transformers under 11 KV distribution network. Besides, it is proposed to erect 10 Nos. of 11 KV Switch gears, 20 Nos. of Pillar boxes and to convert 750 numbers of over head services and 100 numbers of over head Street lights into under ground cable system.
- It is proposed to give internal training to 30 officers and 40 staffs and to give external training to 10 officers and 5 staffs respectively.
- Setting up of Standard Laboratory, scientific instruments and Trivector meters are to be tested and calibrated, periodical testing are to be conducted in all equipments and panels in EHV sub-stations, HT/LT Trivector meters are to be tested at site, electro mechanical meters are to be converted into static meters in HT and LT industrial services, datas are to be down loaded from the energy meters in HT industries for analyzation, enhancement of rolling stock static meters and conversion of electromechanical meters into static meters in the LT services.
- It is also proposed to procure additional computer systems, Dot Matrix, Line Matrix, and Laser printers, uninterrupted power supply units, computer consumables and stationary items, development of Intra departmental Intranet pages within the department, introduction of E-Governance as per the guidelines of Government of India, Upgradation of the existing computer systems, payment for annual

maintenance contract for computer systems and UPS units, introduction of the spot billing systems in parts of Kirumampakkam, Bahour and Karayambuthur. It is also proposed to computerize sub-urban collection centres, establishment of Call centre for attending Fuse off call complaints round the clock under R-APDRP scheme, implementation of R-APDRP project in the urban areas of all the four regions of the UT of Puducherry. Upgradation of existing software for commercial/technical packages and establishment of Management Information Systems.

- Providing of metering arrangements in distribution transformers, street light services and OHOB service connections.
- Procurement of scientific equipments, supply and fixing of Digital Panel Board meters in Sub-stations, testing and calibration of Scientific instruments, at Standard Laboratory, Testing of HT/LT Tri-vector meters at site, down loading of datas from meters of the HT consumers and to analyse the same, modifications to be made in the metering arrangements of HT consumers, periodical testing of all equipments/panels in EHT Sub-stations, enhancement of rolling stock meters, etc.
- Replacement of electro mechanical meters into static meters in the existing services.
- To maintain reliability of the supply and to meet growing demand of power and domestic and commercial consumers in the urban areas of Puducherry, the existing 11 KV Ring Main System has been proposed to be modernized with the installation of Compact Sub-station and replace the existing oil Switch gears with compact VCBs.
- Building: Renovation of Stores buildings at Electricity Main Office in Puducherry, Construction of Staff quarters and O&M Office buildings, Modification of the existing room into a record room in the second floor of the division office at Kirambu Thottam Street, Karaikal, Construction of compound wall around the quarters and providing cement flooring in front of the quarters building and providing grill gate, Special repairs and improvements to 6 Nos of Type "E" and 4 Nos of Type "F" quarters at 110 KV Sub-station at Palloor, Mahe, Construction of additional building to accommodate Bill Collection centre at the office of the Assistant Engineer O&M, Yanam,
- Procurement of vehicles, providing of telephone facilities and creation of posts.

OUTLAY AT A GLANCE

Sector : POWER

No. of Schemes : 11

Department : ELECTRICITY

(₹ in lakh)

Eleventh Five Year Plan 2007-12 Approved Outlay	:	52607.12
Annual Plan 2007-10 Actual Expenditure	:	14717.08
Annual Plan 2010-11 Actual Expenditure	:	4738.63
Annual Plan 2011-12 Approved Outlay	:	15250.00
Annual Plan 2011-12 Revised Outlay	:	7085.00
Twelfth Five Year Plan 2012-17 Tentative Outlay	:	90484.24
Annual Plan 2012-13 Proposed Outlay	:	15850.46

(₹ in lakh)

Sl. No.	Name of the Scheme	Annual Plan 2010-11	Annual Plan 2011-12	Twelfth Plan 2012-17 (Tentative Outlay)	Annual Plan 2012-13
		Actual Expdr.	Approved Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(6)	(7)
1.	Erection of 230/110 KV Sub-station with 2x80 MVA auto transformer at Bahour	86.67	96.50	--	--
2.	Providing additional primary main sub-station & EHT lines in the UT of Pondicherry.	618.68	698.00	--	--
3.	Rationalisation and improvement of distribution in urban areas.	248.03	289.50	--	--
4.	Conversion of HT overhead lines into UG cable system and formation of 11 KV RMS in Pondicherry.	161.99	219.00	--	--

(₹ in lakh)

Sl. No.	Name of the Scheme	Annual Plan 2010-11	Annual Plan 2011-12	Twelfth Plan 2012-17 (Tentative Outlay)	Annual Plan 2012-13
		Actual Expdr.	Approved Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(6)	(7)
5.	System improvement for reduction of transmission and distribution losses	610.58	725.00	--	--
6.	Extension and development of power supply to industries	272.63	218.00	--	--
7.	Extension and development of power supply to Agricultural Domestic, Commercial and Services.	636.88	493.00	--	--
8.	Extension and development of power supply to EWS and street lights.	381.31	360.50	--	--
9.	Upgradation of existing primary Main SS and providing new primary main SS and EHT lines in the UT of Pondicherry	881.25	707.30	--	--
10.	Modernization of billing methods development and e-governance initiatives	52.99	50.00	--	--
11.	Providing communication network for the Electricity Department	1.00	2.50	--	--
12.	Establishment of computer based system monitoring centre at Pondicherry.	588.18	605.50	--	--
13.	Research and development - setting up of standard laboratory.	107.74	174.00	--	--

(₹ in lakh)

Sl. No.	Name of the Scheme	Annual Plan 2010-11	Annual Plan 2011-12	Twelfth Plan 2012-17 (Tentative Outlay)	Annual Plan 2012-13
		Actual Expdr.	Approved Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(6)	(7)
14.	Formation of Electrical inspectorate and licensing board for Pondicherry.	0.10	0.10	--	--
15.	Rural Electrification (BNP)	55.00	66.50	--	--
16.	Human Resources and Development	2.78	5.00	--	--
17.	Providing meters for all consumers under 100% metering programme.	32.82	78.00	--	--
18.	Establishment of third 230 KV Sub-station at Pondicherry.	0.00	1061.10	--	--
19.	Erection of 230 KV lines from Villianur 230 KV sub-station to the proposed 230 KV sub-station	0.00	100.10	--	--
20.	Modernization and augmentation of 11 KV Ring Main System in Urban areas of Puducherry	0.00	0.10	--	--
21.	Establishment of 230 KV S.S. at Karaikal	0.00	0.10	--	--
22.	Erection 230 KV lines for the proposed 230 KV SS at Karaikal	0.00	0.10	--	--
23.	Establishment of Gas Power Plant at Yanam	0.00	0.10	--	--
	Negotiated Loan	0.00	9300.00	--	--

(₹ in lakh)

Sl. No.	Name of the Scheme	Annual Plan 2010-11	Annual Plan 2011-12	Twelfth Plan 2012-17 (Tentative Outlay)	Annual Plan 2012-13
		Actual Expdr.	Approved Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(6)	(7)

Schemes for 2012-13 and 2012-17 after Zero Based Budgeting Exercise

1.	Erection/ Establishment / Upgradation / Providing of 230 KV and 110 KV Primary Main Sub-stations and EHT lines in the U.T. of Puducherry	--	--	46847.00	8376.00
2.	Conversion of HT overhead lines into UG cables, modernization and augmentation of existing 11 KV RMS system and rationalization and improvement of distribution in urban areas.	--	--	5564.00	990.00
3.	Providing meters for all consumers under 100% metering programme	--	--	1637.00	357.00
4.	System improvement for reduction of transmission and distribution losses	--	--	3916.00	735.00
5.	Extension and development of power supply to all categories of consumers and street lights	--	--	7916.25	1434.75

(₹ in lakh)

Sl. No.	Name of the Scheme	Annual Plan 2010-11	Annual Plan 2011-12	Twelfth Plan 2012-17 (Tentative Outlay)	Annual Plan 2012-13
		Actual Expdr.	Approved Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(6)	(7)
6.	Modernisation of billing methods and development and E-governance initiatives and improvements of communication methods of the Electricity Department, Puducherry.	--	--	401.00	77.00
7.	Establishment of computer based system monitoring centre at Puducherry	--	--	3927.00	740.00
8.	Research and development – Setting up of standard laboratory	--	--	1027.00	223.00
9.	Formation of Electrical inspectorate and licensing board for Puducherry	--	--	1.00	0.10
10.	Rural Electrification	--	--	475.00	85.25
11.	Human resources development	--	--	25.00	5.00
	Negotiated Loan	--	--	18747.99	2827.36
Total		4738.63	15250.00	90484.24	15850.46

Note : The number of schemes indicates with reference to Draft Annual Plan 2012-13.