Joint Electricity Regulatory Commission

For the State of Goa and Union Territories

Petition No.20/2010

In the matter of Aggregate Revenue Requirement (ARR) and Retail Tariff for the Union Territory of Chandigarh for the Financial Year 2011-12

Date of Order 16th July, 2011

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LIST OF ABBREVIATIONS

1	A&G	Administration and General
2	Act	Electricity Act, 2003
3	ARR	Aggregate Revenue Requirement
4	BBMB	Bhakhra Beas Management Board
5	CAGR	Compounded Annualized Growth Rate
6	CAPEX	Capital Expenditure
7	CEA	Central Electricity Authority
8	CERC	Central Electricity Regulatory Commission
9	CGS	Central Generating Station
10	Ckt. Km.	Circuit Kilometer
11	CPSU	Central Public Sector Undertaking
12	D/C	Double Circuit
13	FC	Fixed Charges
14	FY	Financial Year
15	GFA	Gross Fixed Assets
16	HP	Horse Power
17	HT	High Tension
18	JERC	Joint Electricity Regulatory Commission for Goa and UTs.
19	kVA	Kilo Volt Ampere
20	kVAh	Kilo Volt Ampere Hour
21	kWh	Kilo Watt Hour
22	LT	Low Tension
23	MOP	Ministry of Power
24	MU	Million Units
25	MVA	Mega Volt Ampere
26	MW	Mega Watt
27	MYT	Multi-Year Tariff
28	NAPS	Narora Atomic Power Station
29	NHPC	National Hydro Power Corporation
30	NPCIL	Nuclear Corporation of India Limited
31	NSPCL	NTPC-SAIL Joint Power Corporation Limited
32	NTPC	National Thermal Power Corporation
33	O&M	Operation and Maintenance
34	O/H	Over head
35	PGCIL	Power Grid Corporation of India Limited
36	PPCA	Power Purchase Cost Adjustment
37	R&M	Repairs and Maintenance
38	RAPP	Rajasthan Atomic Power Project

39	RE	Revised Estimates
40	REA	Regional Energy Accounting
41	RLDC	Regional Load Despatch Centre
42	RoE	Return on Equity
43	S/C	Single circuit
44	SBI CAPS	SBI Capital Market Limited
45	SBI PLR	SBI Prime Lending Rate
46	SJVNL	Satluj Jamuna Vidyut Nigam Limited
47	SS	Sub-station
48	U/G	Under ground
49	UI	Unscheduled Interchange
50	VC	Variable charges

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Before the

Joint Electricity Regulatory Commission for the State of Goa and Union Territories Gurgaon – 122 016

CORAM

Dr. V. K. Garg (Chairperson)
Shri R. K. Sharma FIE (Member)

Petition No.-20/2010

In the matter of

Aggregate Revenue Requirement (ARR) and Retail Tariff for the Union Territory of Chandigarh for the Financial Year 2011-12

And in the matter of

Electricity Wing of Engineering Department, UT Chandigarh Petitioner

ORDER

Date: 16.07.2011

1. 1 Introduction

In exercise of the powers conferred by the Electricity Act, 2003 the Central Government constituted a Joint Electricity Regulatory Commission for all Union Territories except Delhi to be known as "Joint Electricity Regulatory Commission for Union Territories "as notified on 2nd May 2005. Later with the joining of the State of Goa, the Commission came to be known as "Joint Electricity Regulatory Commission for the State of Goa and Union Territories" as notified on 30th May 2008.

The Commission is a two member body designated to function as an autonomous authority responsible for regulation of the power sector in the State of Goa and Union Territories of Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry. The powers and the functions of the Commission are as prescribed in the Electricity Act, 2003. The head office of the Commission is presently located in the district town of Gurgaon, Haryana and falls in the National Capital Region.

The Joint Electricity Regulatory Commission for the State of Goa and the Union Territories started to function with effect from August 2008 with the objectives and purposes for which the Commission has been established.

1.2 ED Chandigarh-ARR & Tariff Petition

The Electricity Wing of Engineering Department UT Administration of Chandigarh herein called ED Chandigarh, a deemed licensee under section 14 of the Electricity Act 2003, is carrying on the business of distribution and retail supply of electricity in Chandigarh (UT).

ED Chandigarh had filed its petition for approval of Aggregate Revenue Requirement (ARR) for determination of retail tariff for FY 2011-12 according to the JERC (Conduct of Business) Regulations, 2009. In the petition, ED Chandigarh has estimated ARR of Rs. 838.77 crore and worked out a revenue gap of Rs. 351.66 crore.

1.3 Admission of Petition

ED Chandigarh originally filed ARR and Tariff Petition for the year 2010-11 on 22.12.2010. Vide their letter dated 6-01-11, ED Chandigarh submitted that on account of inordinate delay in filing of the tariff petition for FY 2010-11, they desire to incorporate the ARR for 2011-12 to the tariff petition of 2010-11 already filed by them as mentioned above and accordingly sought an extension of time up to 13th Jan, 2011 to do so.

The petitioner filed ARR & Tariff petition for two years 2010-11 and 2011-12 on 13.1.2011. The Commission admitted the ARR for year 2011-12 only vide petition no. 20/2010, vide order dated 24-1-2011 for the reasons mentioned therein.

The Commission observed that the ARR filed by the petitioner was incomplete and lacking in some critical and vital data / information. The Commission vide their order dated 10-2-2011 directed ED Chandigarh to submit the data for the year 2009-10 & 2010-11(upto 31-12-2010) on actuals by 28-2-2011.

The petitioner submitted the required data / information on 03/03/2011 as directed by the Commission. Subsequently, on 24.03.2011 the Commission directed ED Chandigarh to file a reply by 30.3.2011 for not publishing the ARR/Tariff petition in leading newspapers. The Public Notice of the petition was published on 30/3/2011.

On the same date, ED Chandigarh filed an affidavit that the additional information submitted on 3.3.2011 may be treated as ARR/Tariff Petition for FY 2011-12.. Information on power purchase, which is an essential input for tariff determination was submitted by ED Chandigarh on 24th June, 2011.

1.4 Public Hearing Process

The Commission directed ED Chandigarh to publish the summary of the ARR and Tariff proposal in the abridged form and manner as approved in accordance with section 64 of the Electricity Act 2003 to ensure public participation.

The public notice was published by the Chief Engineer, ED Chandigarh in the following newspapers.

Sr. No.	Name of the newspaper	Language	Date of publication
1	The Tribune	English	30.03.2011
2	Ajit	Punjabi	30.03.2011
3	Amar Ujala	Hindi	30.03.2011

Through the notice dated 30-3-2011, the public were invited to forward their objections and suggestions on the petition on or before 20th April 2011.

The Commission received four written objections / suggestions within the due date on the petition filed by ED Chandigarh. The Commission forwarded them to ED Chandigarh for communicating their reply to the objections raised.

1.5 Notice for Public Hearing

A public notice was published by the Commission in the following leading newspapers of the territory of Chandigarh on 13.04.2011 giving due intimation to stake holders, consumers, objectors and the public at large about the public hearing by the Commission to be held at Institute of Engineers, Chandigarh on 6.5.2011.

Sr. No.	Name of the newspaper	Language	Date of publication
1	The Tribune	English	13.04.2011
2	Ajit	Punjabi	13.04.2011
3	Amar Ujala	Hindi	13.04.2011

1.6 Public Hearing

Public hearing was held as scheduled on 06/05/2011 at Institute of Engineers Chandigarh from 11.00 AM to 5.00 PM. During the public hearing, each objector was provided a time slot for presenting his views on the petition of ED Chandigarh before the Commission. All those present in the hearing, irrespective of whether they had given a written objection or not, were given an equal opportunity to express their views. The main issues raised by the objectors during the public hearing along with the response of ED Chandigarh are briefly given in Chapter -4.

2. Summary of Tariff Petition for Annual Revenue Requirement

2.1 Annual Revenue Requirement

The ED Chandigarh in its petition has submitted the Aggregate Revenue Requirement (ARR) for the year 2011-12 for meeting its expenses, the estimated revenue with the existing tariffs and the revenue gap as shown in Table 2.1 below:

Table 2.1: Aggregate Revenue Requirement and Gap projected by ED Chandigarh for FY 2011-12

(Rs. crore)

Sl.No.	Particulars	FY 2011-12 (Projected)
1.	Cost of power purchase	717.80
2.	Employee costs	57.92
3.	R&M expenses	7.58
4.	Administrative and general expenses	3.07
5.	Depreciation	15.41
6.	Interest charges (including interest on working capital)	28.18
7.	Return on equity	18.51
8.	Provision for bad debts	2.44
9.	**Total revenue requirement**	**850.93**
10.	Less non-tariff income	12.15
11.	**Net revenue requirement (9-10)**	**838.77**
12.	Revenue from tariff	487.11
13.	Revenue gap (11-12)	351.66
14.	Previous year	0.00
15.	Total gap (12+13)	351.66

Source: (Table 26 of Addl. Information ARR March Petition)

The petitioner has submitted a revenue gap of Rs.351.66 crore for the FY 2011-12.

2.2 Prayer:

ED Chandigarh requested the Commission to:

- Consider the additional information and revised information provided in the document for determining the ARR & Tariff petition for FY 2011-12.
- To approve suitable tariff hike and allow Electricity Department Chandigarh to recover the gap for FY 2011-12.
- Pass such order, as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

- Since, this is the first ARR submitted by ED Chandigarh, any delay in submission of ARR may please be condoned by the Hon'ble Commission.

3. Power Position in Chandigarh–An Overview

3.1 Introduction

The Administration of Union Territory of Chandigarh is a deemed licensee under the provisions of Electricity Act, 2003 for distribution of electricity in the Union Territory. It operates in an area of 114 sq.km. The total population of Union Territory is around 10.5 lakhs as per 2011 census.

3.2 Power Allocation

Chandigarh does not have its own generation. The power supply requirement of the Union Territory is met from its share in Central Generating Stations based on the allocation by Ministry of Power, Government of India and other sources. The allocation for FY 2009-10 and FY 2010-11 is furnished in Table 3.1 below:

Table 3.1: Allocation from Central Generating Stations

SI No.	Stations	Allocation for FY 2009-10 (MW)	Allocation for FY 2010-11 (MW)
	NTPC		
1.	Singrauli	16.60	16.10
2.	Rihand-I	22.30	17.99
3.	Rihand-II	16.20	16.08
4.	Unchahar-I	3.11	3.11
5.	Unchahar-II	6.47	6.38
6.	Unchahar-III	3.21	2.67
7.	Anta	9.24	8.37
8.	Auriya	8.82	8.67
9.	Dadri (Gas)	8.30	8.19
10.	Kahalgaon-II	3.75	3.00
	NHPC		
11.	Salal	1.86	1.86
12.	Tanakpur	1.20	1.20
13.	Chamera-I	21.06	21.06
14.	Chemera-II	4.95	4.90
15.	Uri	2.98	2.98
16.	Dhauliganga	3.72	4.27
17.	Dulhasti	4.99	4.97
	NPCIL		
18.	NAPS	8.54	8.45
19.	RAPP (Unit 5 and 6)		4.32
	Other Sources		
20.	Tehri	11.40	11.32
21.	Bhakra (BBMB)	46.38	46.35
22.	SJVNL	16.05	11.47
23.	Sewa II		2.86

Source: Format No.4 of ARR (March Petition)

Note: Bhakra (BBMB) allocation in MW is not furnished in the ARR but the percentage allocation of. 3.50% is provided.

Any shortfall in the supply is met through open market purchase i.e. PTC / Traders etc.

3.3 Demand and Supply Position

The demand of Union Territory of Chandigarh was about 318 MW during the FY 2009-10 and the allocation from various Central Generating Stations was about 147MW leaving a deficit of about 171MW which was met by purchase from other sources.

3.4 Power Supply Position

The power purchase from various Central Generating Stations and others during FY 2009-10 and FY 2010-11 excluding interstate transmission losses of 3.93% for 2009-10 and 3.89% for FY 2010-11 are given in Table 3.2 below:

Table 3.2: Power Supply from Central Generating Stations and other Sources

Sl. No.	Station	FY 2009-10(MU)	FY 2010-11(MU)
	NTPC		
1.	Singrauli	90.35	113.64
2.	Rihand-I	125.59	110.24
3.	Rihand-II	100.94	106.33
4.	Unchahar-I	21.16	16.41
5.	Unchahar-II	40.70	34.10
6.	Unchahar-III	18.33	14.51
7.	Anta	34.61	34.47
8.	Auriya	45.89	37.92
9.	Dadri (Gas)	39.20	38.86
10.	Kahalgaon-II	27.60	13.51
	NHPC		
11.	Salal	7.66	9.04
12.	Tanakpur	4.95	5.50
13.	Chamera-I	76.29	91.94
14.	Chemera-II	21.90	26.45
15.	Uri	16.01	18.11
16.	Dhauliganga	16.20	19.51
17.	Dulhasti	26.36	31.25
	NPCIL		
18.	NAPS	31.55	21.53
19.	RAPP (U-5 & U-6)	-	28.35
20.	**Other Sources**		
21.	Tehri	20.33	32.67
22.	Bhakra (BBMB)	546.35	526.16
23.	SJVNL	70.38	79.24
24.	PTC/Traders	130.89	241.18
25.	UI	60.00	-3.00
	Total	**1553.34**	**1653.11**

Source: Extracted from format 4 of ARR Additional Information (March Petition)

3.5 Transmission and Distribution Network

Chandigarh owns and operates the transmission and distribution network as given in Table 3.3 below:

Table 3.3: Transmission and Distribution Network as on 31st March 2010

Sl.No.	Voltage	Transmission lines (ck.km.)	Substations (Nos.)
1.	66 kV	103	13
2.	33 kV	28	5
3.	11 kV	818	1707
4.	LT	1216	-

Source: para 1.5 of ARR (January petition)

3.6 Transmission and Distribution (T&D) Losses

The transmission and distribution (T&D) losses as reported by ED Chandigarh are as tabulated below:

Year	T & D loss
2008-09	17.89%
2009-10	17.79%
2010-11	18.96%

The technical and commercial losses of the system have not been segregated.

3.7 Consumer Profile and Energy Sales

ED Chandigarh serves about 1,95,300 consumers as on 31.3.2010. The number of consumers category-wise and the energy sales to each category during FY 2009-10 are given in Table 3.4 below:

Table 3.4: Consumer Profile and Energy Sales for FY 2009-10

Sl.No.	Consumer Category	Number of Consumers		Energy Sales (MU)	
1.	Domestic	167208	(85.6%)	489.22	(38.3%)
2.	Commercial	24420	(12.5%)	331.94	(26 %)
3.	Large supply	102	(0.05%)	141.33	(11%)
4.	Medium supply	884	(0.4%)	107.37	(8.4%)
5.	Small power	1409	(0.7%)	19.07	(1.5%)
6.	Agriculture	167	(0.09%)	1.02	(0.1%)
7.	Public lighting	568	(0.29%)	14.50	(1.2%)
8.	Bulk supply	258	(0.13%)	57.71	(4.5%)
9.	Others	266	(0.14%)	114.76	(9%)
	Total	**195282**		**1276.91**	

Source: Extracted from Table 1 and 3 of ARR Additional Information (March Petition)

3.8 Energy Balance

The supply and demand during the FY 2009-10 and FY 2010-11, as provided by ED, Chandigarh are given in Table 3.5 below:

Table 3.5: Energy Balance

(MU)

Sl.No.	Particulars	FY 2009-10	FY 2010-11
1.	Energy sales(MU)	1276.91	1284.45
2.	T&D losses	276.33	300.51
3.	Energy requirement	1553.24	1584.96
4.	Energy available at the periphery of Union Territory	1553.24	1584.96
5.	Energy surplus / (deficit)	-	-

Source: Table 5 of additional information (March Petition) and additional data as furnished by ED Chandigarh later on.

4. Brief Summary of Objections raised Response from ED Chandigarh and Commission's view

4.1 Public response to the Petition

On admitting the ARR & Tariff Petition for the FY 2011-12, the Commission directed the ED Chandigarh to make available copies of the Petition to the general Public, post the petition on the Website & also publish the same in news papers in abridged form duly inviting Comments/Objections from public as per provision of the JERC (Conduct of Business) Regulations 2009.

4.2 Public Hearing

A public hearing was held at Chandigarh on 6-5-2011, from 11.00 AM to 5.00 PM at Institute of Engineers, Sector 19, Chandigarh. During the public hearing, those who submitted the objections in writing presented their Objections/Suggestions in person before the commission. Other participants from general public, who did not submit written objections earlier, were also given an opportunity to offer their views/suggestions in respect to the ARR & tariff proposals of the ED Chandigarh.

The List of objectors who attended the public hearing is given in Annexure-I. ED Chandigarh filed written replies to the objections and also participated in the public hearing.

4.3 Objections/Suggestions and response of ED Chandigarh

4.3.1 Objector 1: Er R.P Singhla, Technical Advisor National Consumer awareness Group, Chandigarh (Letter dt 18-4-2011)

The main objections / suggestions raised are;

A) Certain factors which can generate additional revenue

I) Trading for power purchase is done by the ED to avail benefits of free access.

II) Peak Load restrictions on Industry on the pattern of Punjab and Haryana and conducting load survey through state of the art meters for levy of penalties on PLEC violations.

III) Regular down loading of the metering data to detect tempers and power theft.

IV) Levy of generation duty on private generation.

B) Benefits and Relief to consumers

I) There should be no service connection charges in the bills of domestic /NRS consumers.

II) Meter rentals be not charged if security of meter is taken or meter is purchased by the consumer, if rent is to be charged there should be no security charges for the meter.

III) Interest on connection security to be adjusted in the bills.

IV) To conserve electricity, there should be no minimum charges in case of domestic and NRS consumers. However in place of these fixed charges as part of two part tariff is acceptable.

4.3.1.1 Response of ED Chandigarh vide Memo No. SEE/OP/Comml./2011/1356 dt. 29-4-11

A)

I) The trading of power has already been started for the last 2 years i.e. 2010-11 and 2011-12 where in power through bilateral arrangements are being procured (e-tendering) from various trading companies through competitive bidding. Also, the CED has explored the direct banking arrangement with PDD J&K where in CED gets power during the day time in the summer season and return the same power in the night hours of winter season. The CED is also a client member on the Power Exchange of India (PXIL) through a trader (Mittal Processor) for exploring sale/purchase of power on the Exchange platform.

II) At present, there are no peak / off-peak restrictions in the UT Chandigarh and UTC is committed for round the clock power supply to all the category of consumers.

III) The needful is being done by the Enforcement wing. Regular downloading of the MRI data is being carried out by the operation sub division and enforcement wing of the department.

IV) Matter pertains to the State Govt.

B)

I) As per section 46 of the Electricity Act 2003, the State Commission may by regulation authorize a distribution licensee to charge from a person requiring a supply of Electricity in pursuance of Section 43, any expenses reasonably incurred in providing any electric line or Electrical Plant used for the purpose of giving that supply" Also Electricity Supply Code Regulation 2010, Section 3.3(3), also provides that " in all cases of new connections, the consumers shall bear the service connection charges i.e. the cost of the service connection from the distribution mains to the point of supply as approved by the commission from time to time.

II) Section7.3(4) of the Electric supply code Regulation 2010 provides that in case of connections where the cost of the meter is borne by the consumer, neither meter rent nor any security for the price of the meter shall be charged from the consumer.

III) Section 6.10(8) of the Electricity Supply code 2010 already provides that the distribution licensee shall pay interest at the bank rate notified by the Reserve Bank of India from time to time on such security deposits taken from the consumer. The interest amount of previous financial year shall be adjusted in the energy bills issued in May/June of each year depending on billing cycle.

IV) There are no minimum monthly charges proposed in case of any type of consumer. However, the fixed charges (Two Part Tariff) have been proposed as already incorporated in the ARR and tariff for the year 2011-12. By imposing the fixed charges on the consumers, the consumer will be restricted to apply for the actual load requirement of the consumer. In case, the consumer not charged the Fixed charges, he may apply for the unrealistic load for which the Deptt. has to invest through unwarranted capital cost. As such the Fixed charges should be levied to all the consumers so that the realistic requirement can be foreseen for proper investment through capital cost.

4.3.2 Objector 2: Er P. S. Chawla

The main objections raised are:

1. In Power Purchase cost,

(a) For purchase of power from BBMB, they have taken Rs 253.79 cr for 527.32 MU & thus Rs 4.81/unit. This is highly unjustified as the UT CHANDIGARH is supposed to be a constituent of BBMB and hence the cost of power purchase has to be much less, may be even less than Re 1/-per unit as paid by Punjab, Haryana, Rajasthan (the O& M cost) and straight away a saving of Rs 200 crore could accrue on this a/c. In case this had not been made possible due to lack of any decisions, or follow up by UT ADMN or things pending with BBMB/GOVT OF INDIA, why should the consumers suffer for that?

(b) For purchase of power from PTC/Traders, they have taken Rs 165.66 cr or 305.33 MU & thus Rs.5.42/unit, which can be easily curtailed if UT has a system to fully monitor power drawl at all times of the day and thus regulate the costly power. Furthermore UT ADMN can certainly prevail upon the Ministry of Power for allocations from the unallocated quota which is always available to meet such conditions.

(c) Under UI minus 3 shown, provision of Rs 36.10 cr has been provided which is patently wrong as with minus drawl you have to gain & not pay from your pocket. They attribute this to over drawl of power which is their only due to no proper monitoring & control in time. This can certainly be avoided and a very token provision of not more than Rs 5.0 cr be allowed to meet real emergency conditions.

(d) In Other Charges for PGIL, Rs 25.50 cr has been taken which seems to be the maintenance of 220KV S/Stn & line, as no power is purchased from Power Grid. This needs to be justified and the norms/actual expenditure for similar S/Stn and lines by other state electricity departments need to be seen and brought out to justify this expenditure.

2. T& D LOSS

It is mentioned that GOI has fixed 15% for the year 2011-12 but still provision of 17.42% has been taken. This is a small jurisdictional area and mostly urbanized, no rural areas & long LT lines which become difficult to manage, hence the 15% factor is more than enough for this year. There is 66 KV ring main and further distribution for a few sectors each, the T&D losses can certainly be managed and there is no justification to make more provisions in power purchase to meet with 17.42 % loss.

3. Tariff for categories

(a) For Domestic, they are shifting to telescopic tariff now which is good as the same is generally present in power utilities. However the slab 1-150 is being replaced with 1-100. Thus the tariff increase for 50 units beyond 100 will be more than 100% against the 25% as mentioned and proposed by the UT. The 2 slabs should continue with telescopic tariff. Then the Fixed charges Concept is very unrealistic and no justification for this is coming. This should be removed and there is no reason to double these charges.

(b) For NRS & OTHERS, likewise the fixed charges concept needs to be justified as it certainly increases the per unit cost.

4. No. of Consumers

(a) In the no. of Consumers listed, others are shown but there is no category in tariff for others. This is confusing. These must be merged in respective Categories.

(b) Agriculture Consumers are shown as 167 ending 3/2010 and 202 ending 3/2011 and respective connected load as 1006KW & 1028 KW, thus for 35 nos increase, there is only 28KW increase which needs confirmation.

There is not much rural area and hence the department to kindly verify (& should bring out if how many physical checking done by them during 2010-11) to be sure of no misuse as no increase in tariff is proposed for this category.

5 Interstate losses 3.89 % has been provided for this but nowhere the actual loss has been shown based on metered difference. At the entry point, we have all meters and also at the Supply points too by all various suppliers, we must check that and then really see whether this assumed figure is not on the higher side. This will reduce the cost of power.

6 Interest Rs 28.18 cr is provided but Loan shown is NIL (column blank), how is as per the norms.

7 In the category of NRS consumers, the admissibility for loads above 30 KW has been made at 11 KV whereas for all other categories, it is at 400 volts LT supply and it is only above 60 KW, it is at 11kv. The reasons / justification thereof is not given. Rather it is difficult to install transformers for commercial premises in the city area than the industrial ones, but load level for NRS at 400 volts has been proposed less which must be equalized with other categories i.e upto 60 KW.

8 There is no SCADA system and any automation system existing and neither any proposed. For effective measurements, control and load balancing etc, such system must be installed and provisions made under capital heads.

9 No information about the metering at consumer premises relating to various categories has been provided namely electronic meters installed, %age in each category of connections and the schedule to complete the remaining. This is to ensure correct metering and equality amongst consumers as otherwise burden of bearing revenue comes more on selective consumers. More so, T & D loss also increases, hence true picture is not depicted unless the system of weighment/ measurement is accurate.

10 Central govt. grants under APDRP for power Utilities are provided but there is no provision in the ARR.

This is very essential component for improvement of the system, better supply and reduction of the T&D loss. This needs to be brought out and considered for overall benefit to the consumers.

11 UT CHANDIGARH has no Generation of its own, hence it has to depend on various sources and very costly power has been/is purchased. Even provision for Short Term power purchase of 305 MU at Rs 5.43/unit has been made in the ARR for year 2011-12.It is very essential to consider the possibility of having power plant of suitable type & capacity, say 100 MW initially and then extending to 200 MW at later stage for self sufficiency to a great extent and to avoid such costly power purchase during the year. The other State Utilities with competitive bidding are finalizing/ have finalized proposals at around Rs 3/-per unit in the recent past. This therefore needs consideration please.

4.3.2.1 Response of the ED Chandigarh vide Memo No. SEE/OP/Comml./2011/1357 dt. 29-4-11 & 1412 dt. 3-5-2011

1. Power Purchase Cost

a) It is submitted that there are three types of power being purchased from BBMB.
   i. 3.5% share from Bhakra (BBMB)
   ii. 10 LUs/day (Special Assistance) from BBMB
   iii. 1 LU/day (Adhoc Assistance) from BBMB

   The per unit rate for (i) is the actual cost of O & M carried out for the Bhakra (BBMB). It is submitted that BBMB in its 206th board meeting has approved the revised tariff for the power at Sr. No. ii and iii. and revised in the ARR accordingly.

b) UT has no generation of its own and is fully dependent upon the central generating stations viz. A viz. NTPC, NHPC, NPCIL, SJVNL, BBMB etc. It is pertinent to mention that the around 83% of the power is being procured on long term basis from NTPC, NHPC, NPCIL, SJVNL, BBMB etc and the other is being procured on short term basis through competitive bidding to meet up with the growing demand of the city. In the ARR for the FY 2011-12, the short term rate/unit has been taken as per the rate/unit of last year i.e. 2010-1 which was procured through competitive bidding. It is pertinent to mention that as per the Unscheduled interchange regulation 2010, Clause 7, notified by Hon'ble CERC ". The over drawl of the Electricity by any beneficiary or a buyer during a time block (on 15 minutes) shall not exceed 12% of its schedule drawl or 150 MW, whichever is lower, when the frequency is below 49.7 Hz and 3% on the daily aggregate basis for all the time blocks when the frequency is 49.7 Hz". The payment of UI Charges on the over drawl by any utility under the regulation 2010 shall be levied without prejudice to any action that may be considered appropriate under section 142 of the Electricity Act 2003 (Punishment for non compliance of direction by appropriate commission) for contravention of the limits of over drawl for each time block when the frequency is below 49.7 Hz'. Therefore, it is necessary for all licensees to arrange power rather than overdrawing from the grid to maintain grid discipline failing which action can be taken as per section 142 of the EA 2003. However, the rate/unit for the power purchase may be much lesser than the assessed rate/unit which shall be submitted to the commission in the truing up to the ARR for the FY 2011-12.

It is further intimated that UT Chandigarh has already taken up the matter vigorously with the MoP for allocation of the unallocated quota on firm basis and as on date UT Chandigarh is getting the allocation as per the sheet attached.

c) The UI has been shown as minus 3 MU and the cost on that account has been to the tune of Rs. 36.10 Crore. It is submitted that the fiqures depicted are the net value of UI. However, there shall always be some over drawls/under drawls at different frequency prevailing at that time on 15 minutes time slot basis. As such in case of over drawls at low frequency in one block and underdrawals at comparative higher frequency over the year has led to such a figure. Also every effort is being made to be within schedule as per the unscheduled interchange regulation 2010, Clause 7 notified by Hon'ble CERC. The Power control office is solely regulating the load and balance the availability and power demand of the city.

2. These are the wheeling/transmission charges required to be paid to the Central Transmission Utilities i.e. PGCIL, State transmission utilities etc. for every unit purchased. However, the cost of O&M of 220 KV S/Stn. Kishangarh for maintenance and upkeep of 220/66 Kv S/Stn, has been taken as Rs 1.55 Crore as technical fees and is taken in the administrative and general charges expenses T & D LOSSES

   It is pertinent to mention that GoI has targeted to reduce the AT&C losses to 15% at least in the areas under APDRP scheme by 2012. It is intimated that the R APDRP has been initiated in UT Chandigarh. M/s NDPL has already been appointed as an IT consultant for Part A, who has prepared the DPR for Part A and the project amount of Rs. 33.34 Crore has been sanctioned by MoP in this regard. M/s SPANCO has already been nominated as IT Implementation agency (ITIA) for Part A by M/S PFC and LoI will be issued to M/S SPANCO shortly for implementation of Part A. The UT Chandigarh is bound to reduce the AT&C losses to 15% within 3 years time from the implementation of the APDRP scheme.

3. Tariff Of Categories

In an attempt to rationalize tariff structure for domestic category, the consumers making heavy consumption of electricity are required to pay more so that they are tempted to do away with avoidable electricity use and promote energy conservation.The tariff proposal is on the basis of two Part tariff. By imposing the fixed charges on the consumers, the consumers will be restricted to apply for the actual load requirement of the consumer. In case the consumer not charged the fixed charges, he may apply for the unrealistic load for which the Department has to invest through unwarranted capital cost. As such the fixed charges should be levied to all the consumers so that the realistic requirement can be foreseen for proper investment through capital cost.

4. No. Of Consumers

a) The necessary clarification has already been submitted to the Hon'ble JERC. However, the following category of consumers are taken in the others category of consumers.

- Temporary Supply
- Free Supply to Electricity Officers and employee concession.
- Rehri Market

The relevant category have now been merged in the respective categories.

b) The sale of power to the agriculture consumer has been taken as 1.07 MU out of total sale of 1428.25 MUs which is 0.74 % of the total projected sales for the year 2011-12. This is quite negligible and does not affected any other type of consumers.

5. Interstate Losses

The interstate transmission losses of 3.89 % has been estimated on the basis of the week wise pooled transmission losses as per Regional Energy account of the northern region.

6. Interest

The licensee ED Chandigarh since is a Govt. Department the entire capital employed till date has been funded through the equity infusion by the GoI through budgetary support without any external borrowings. However, in pursuance of JERC tariff regulations 2009 for the purpose of determining the ARR, the ED Chandigarh has considered the debt equity ratio of 70:30 for projecting the normative debt and equity. Normative repayment has been considered to be equal to the depreciation charge during the year and the interest at the SBI PLR rate is applied to the average normative debt in order to project the normative interest on long term loans.

7. The admissibility of load on NRS and for other category has been taken as per the provisions of the Electricity Supply Code Regulations 2010 notified by Hon'ble JERC. However, the Chandigarh administration vide their notification dated 19th Aug, 2008 has allowed installation of transformers / generators on the roof top of the buildings.

8. The R-APDRP has already been initiated in UT Chandigarh. M/s NDPL has already been appointed as an IT consultant for Part-A, who has prepared the DPR For Part A and the project amount of Rs. 33.34 Crore has been sanctioned by MoP in this regard. M/s SPANCO has already been nominated as IT Implementation agency (ITIA) for Part A by M/S PFC and LoI will be issued to M/S SPANCO shortly for implementation of Part A. However, the provisions for such system installed shall be made under CAPITAL HEAD (CAPEX) as and when the funds get available.

9. The details of the total no. of electronic meters installed in the UT Chandigarh is detailed as below:

Status Of Electronic Meters Uptill March 2011

S. No.	Description / Category of consumers	Numbers of Connections ending 31.3.11	Balance consumers where meters are yet to be installed	Remarks
1.	DS /CS with load up to 5 KW	174823	45823	
2.	DS /CS with load between 5 KW & 20 KW	40446	2725	
3.	DS/ CS with load between 20 KW & 40 KW	2095	88	
4.	DS/ CS with load between 40 KW & 100 KW	559	276	
5.	Small Power	1362	256	
6.	Medium Supply 40 KW to 100 KW	575	54	
7.	Medium Supply 40 KW to 100 KW	652	12	
8.	Large Supply	118	3	
9	Others	221	42	

10. The project amount of Rs. 33.34 Crores has been sanctioned by MoP under APDRP. M/s SPANCO has already been nominated as IT Implementation agency (ITIA) for Part A by M/S PFC and LoI will be issued to M/S SPANCO shortly for implementation of Part A. However, the provisions for such system installation shall be made under CAPITAL HEAD (CAPEX) as and when the funds get available. Therefore, the same has not been taken in the ARR for the FY 2011-12, the same shall be submitted in the truing up of the ARR for the FY 2011-12.

11. UT has no generation of its own and fully dependent upon the central generating stations viz. a viz NTPC, NHPC, NPCIL, SJVNL, BBMB etc. It is pertinent to mention that the around 83% of the power is being produced on long term basis from NTPC, NHPC, NPCIL, SJVNL, BBMB etc and the other is being produced on short term basis to meet up with the growing demand of the city. In the ARR for the FY 2011-12, the short term rate / unit has been taken as per the rate/ unit which shall be submitted to the Commission in the truing up of the ARR for the FY 2011-12.The UT Chandigarh is also exploring the power purchase on long term basis (Case –I and Case II) through competitive bidding to meet up with the demand of the prospective consumers. However, the UT Chandigarh is already entered into the agreement with various NTPC, NHPC stations on long term basis for which the tariff shall be regulated by the Hon’ble CERC. The details of the power purchase agreement along with the date of commissioning is enclosed for ready reference please (Copy enclosed)

(POSITION AS ON 9.3.11)

Power Purchase Agreement Signed For New Central Generating Projects For Future Firm Allocation

S. No.	Source	Installed capacity in MW	Expected Allocation MW	Expected date of completion	Location of project	Executing Agency
1.	Koteshwer HEP	4 x100	1.5	2011-12	Tehri Garhwal Uttrakand	NHPC
2.	Koldam HE Project	800	6	2011-12	Distt. Bilaspur in HP	NTPC
3.	North Karanpura STPP	1980	15	2011-12	Distt. Hazari Bagh of Jharkhand	NTPC
4.	Barh STPP	1980	15	2011-12	At Bath in Distt., Patna	NTPC
5.	Uri –II	280	2.80	2011-12	Distt. Baramulla in J&K	NHPC
6.	Sewa HEP Stage II	120	1.20	2011-12	Distt. Kathua in J&K	NHPC
7.	Pakal Dal HEP	1000	10	2011-12	Dist. Doda J&K	NHPC
8.	Parbati HE Project Stage III	520	5	2011-12	Distt. Kulu H. P.	NHPC
9.	Chamera HE	231	2	2011-12	Distt. Chamba H.	NHPC

	PROJECT STAGE				P.	
10	PARBATI HE PROJECT STAGE II	800	8	2011-12	DISTT. KULU, HP	NHPC
11	BURSAR HE PROJECT	1020	10	2011-12	DISTT. DODA, J&K	NHPC
12	KOTLIBHEL STAGE I A	195	2	2011-12	DISTT. TEHRI GARHWAL	NHPC
13	KISHANGANGA HEP	330	3.5	2012-13	DISTT. BARAMULLA, J&K	NHPC
14	KOTLIBHEL STAGE I B	320	3	2012-13	DISTT. PAURI AND TEHRI GARHWAL,	NHPC
15	KOTLIBHEL STAGE II	440	4	2012-13	DISTT. PAURI AND TEHRI GARHWAL	NHPC
16	VISHNUGAD PIPALKOTI HEP	444	4	2012-13	CHAMOLI, UTTARAKHAND	NHPC
17	BARH STPS STAGE II	1320	10	2012-13	PATNA, BIHAR	NTPC
18	AURAIYA STAGE II	650	6	2012-13	ETAWAH, UP	NTPC
19	ANTA STAGE II	650	6	2012-13	KOTA(RAJ)	NTPC
20	RIHAND STPP STAGE III	2x500	10	2012-13	RIHAND DISTT. SONEBHADRA,	NTPC
21	LATA TAPOVAN	171	2	2014-15	UTTARANCHAL	NHL
22	MEJA (JV)	1320	3	2014-15	UTTARPRADESH	NTPC
23	RUPSIYABAGAR	261	2	2014-15	UTTARANCHAL	NHL
24	GIDDARBAHA	2640	10	2014-15	PUNJAB	NTPC
25	SINGRAULI –III	500	5	2014-15	UTTARPRADESH	NTPC
26	TANDA	1320	11	2014-15	UTTARPRADESH	NTPC
27	TAPOVAN VISHNUGAD	520	4	2014-15	UTTARANCHAL	NHL
TOTAL ANTICIPATED ALLOCATION OF POWER		**162 MW**				

4.3.3 Objector 2: Er. PS Chawla – On the reply given by ED Chandigarh Mr. P.S Chawla gave a rejoinder to SE/electricity memo No 1357 dt 29-4-2011 as follows:

1. Power Purchase Cost

(a) The Annexure said to be enclosed with the memo is not attached/recd. The %age share and other Special Assistance & Adhoc Assistance is not quantified and also the estimated amount of Power Purchase on this a/c in Rs. not indicated.

In the newspaper The Tribune dated 21 April 2011, in case of PSPCL, the BBMB rate for year 2010-11 has been mentioned as Re.0.33 per unit. Thus in case even the reduction in power purchase cost from BBMB only is reduced by say Rs.150-200 crore and the enhancement in tariff is to recover Rs 124 crores during 2011-12, this is compensated by this one item only AND HENCE NO NECESSITY FOR TARIFF HIKE DURING 2011-12.

(b) For Power purchase from PTC/Traders, it is now mentioned that the rate/unit for power purchase may be much lesser than the assessed rate which shall be submitted to the Commission while truing up of the ARR for 2011-12, but no clearcut provisions are indicated. This enormous provision of Rs 165.66 crore is not at all justified and must be curtailed to the maximum. UT ADMINISTRATION is direct under control of Central Govt and the GOI has all powers for allocating the UNALLOCATED QUOTA AT THEIR DISPOSAL, hence the meagre requirements of UT can be easily met therefrom.

(c) This is again the amt for overdrawl of power which has to be regulated and the minimum amts therefor should be allowed to meet real emergencies only. The amt of Rs 36.10 cr is on much higher side.

(d) The details of these Wheeling Charges alongwith units transmitted by each supplier, the amt/rate should be clarified in the note for proper justification thereof.

2. T&D Losses

The 15% losses should only be permitted as per GOI for the year 2011-12.

3. Tariff For Categories

The tariff increase for DS consumers in 100-150 units range will be from Rs 1.65 to Rs 3.55 per unit which is 115% increase**.** Hence the slabs 1-150 and more than 150 units as existing should continue. There is no justification given for DOUBLING THE FIXED CHARGES FOR DS CONSUMERS.

4. No Of Consumers

(a) The Utility says necessary clarification is already given to JERC and the categories merged with respective relevant categories, this is ok please.

(b) The clarification with regard to 35 no consumers AND load only 28 KW, as also MISUSE part is not clarified. The Utility may please see to it.

5. **Interstate Losses**

The reply to the actual difference on metered Basis is not given.

6. Interest

Since there are no borrowings, the interest on the SELF amount of the Govt to the Govt, since UT ADMN is Central Government and the Electricity Department is a part thereof AND not Autonomous Body or Corporate Body, hence this may kindly be examined for permissibility or not.

4.3.3.1 Response of ED Chandigarh to the objections and rejoinder given by Mr. P.S Chawla (vide e-mail dt. 19.5.2011)

1. Power Purchase Cost

a) It is again intimated that the BBMB power has been divided into three parts:

S.NO	Description	Quantum in MU's/year	Rate /Unit
a)	BBMB share @ 3.5 %/unit of Bharka Generation	145.96 MUs	Rs 0.33
b)	10 LUs/day special assistance rate	365 MUs	At the BTPS rate
c)	1 LUs/day adhoc assistance	36.5 MUs	Rs 2.90/unit(01.03.11 to 31.12.11) Rs.3.19/unit(01.01.12 to 31.03.12)

The BBMB rate for the year 2010-11 has been mentioned as Rs 0.33/unit in case of PSPCL, the same rate/unit is applicable to ED chandigarh for 3.5% share from Bhakra as explained at (a) above As such the total requirement for purchase of power during the year 2011-12 comes out to be 634.83 crore.

b) The power purchase from PTC/traders for the year 2011-12 has been on the estimated requirement based on the figures of 2010-11. However, the same shall be revised in the truing up of the ARR for the year 2011-12 as per chapter II, Section 8 of the “Terms and Condition for determination of Tariff Regulation” 2009.

The Ministry of power has allocated the power from the unallocated quota to a tune of 5% to 8% during different hours of the day. It is pertinent to mention that the power purchase has been estimated/ projected considering the power from various sources from the unallocated quota.

c) The estimated amount of Rs 36.10 crore for Overdrawls has been taken as per the figure of Overdrawls of 2010-11. It is also mentioned that as per the “Procurement of Renewable energy) Regulations, 2010, each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year which comes to be 35.55 MUs(30.21 MUs from Non-solar and 5.33 MUs from Solar Power Projects). The floor price and forbearance price of Non- solar is Rs 1.50/unit and Rs 3.90/unit respectively and for Solar, it is around Rs.12.00/unit and 17.50/unit respectively. The total obligation for ED Chandigarh comes out to be around Rs 20 Crore for 2011-12 which has been included in the Overdrawls amount mentioned in the ARR petition.

d) The units transmitted/purchased from all the sources have already been mentioned the ARR for the year 2011-12.

2. T&D Losses

It is again intimated that the 15% losses have been targeted by the GoI in the States which have already initiated the APDRP projects.

3. Tariff For Categories

In case of the Domestic consumers using 150 units, the increase will be 44% only and not 115% since the proposed tariff is telescopic in nature.

The proposed revenue from the fixed charges has been projected as Rs 7.60 crore taking fixed charges of Rs 10/KW of the connected load. In case the fixed charges are not increased then the energy charges are required to be increased for the category of consumer. Also, fixed charges are required to be charged from the consumer for maintaining /recovering the investment already made by the Department assuming the certain minimum demand.

4. No. of Consumers

a) The reply given stands

b) As per section 10.1 of the supply code regulation 2010, the action can be initiated against the consumers who use the electricity for the purpose other than for which the supply of electricity was given.

5. Interstate Losses

The interstate losses i.e losses of Northern Region have been taken as per the Regional Energy Account issued by NRPC on month basis.

6. Interest

The reply already given stands.

4.3.4 Mr. P.S Chawla gave second rejoinder to SE/Elect Memo 1412 dt 3-5-2011 vide E-mail dt. 19-5-2011 as detailed below

1. The admissibility of load for NRS consumers above 30 KW is proposed at 11 kV as per Elec. Supply code regulation 2010. It is not justified to adopt 30 KW while for other categories it is 60 KW & above.
2. Under APDRP, no work is undertaken even through scheme is sanctioned. The Delay in execution of project will enhance the Power Purchase Cost, thus causing Tariff hike. Check the fact of statement. If Right add in the directive.
3. JERC may consider to fix targets for completion of installation of balance electronic Meters.
4. Same as SL No 2 above
5. There is no reply or Proposal or feasibility study to own a power plant in UT Chandigarh.

4.3.4.1 Response of ED Chandigarh

1. The section 3.6(B) of the Electricity Supply Code Regulation 2010 may kindly be refereed to please.

2. THE R-APDRP scheme has already been initiated as already mentioned . However the power drawls are being monitored on real time basis by the separate section named Power Control Office.

3. Every effort is being made to change the electro mechanical meter with the Electronic /Static meters. The tenders for procurement of single phase and three phase intelligent static meters as per CEA guidelines have already been floated and are under process.

4. Please see Sr.No.2

5. The GAIL is planning a gas pipeline from Dadri to Nangal which is proposed to be extended to the ED Chandigarh. ED Chandigarh is exploring the feasibility of gas linkage from the proposed Gas transmission network of GAIL and accordingly the possibility of GAS based power plant of capacity 100/200 MW in ED Chandigarh be explored.

4.3.5 Mr. P.S Chawla has raised some other points for Consideration

1. Conservation of energy

The other utilities have encouraged use of CFL by giving at subsidized rates to consumers thus saving in energy .UD admin can also save power by 30 to 40 MW by such means.

2. Electricity duty charge

The electricity duty @ 9 Paise & 11 Paise /unit is charged for different categories, but no revenue receipts are shown. In the state, the power utility are autonomous bodies or cooperates and the ED goes to the Govt, where as in case of UT Chandigarh, the power utility is the Govt itself and that is the central Govt. The whole funds revenue is by the Govt and with the Govt , hence the ED in this case should form part of receipts by the dept and total up the Elec duty & balance the ARR.

3. Summary of ARR

In para 6.1/(Para 35 of ARR), an SL No 18 regulatory asset of Rs 227.32 crores is shown. This will be carried over to next year & becomes part of ARR for 2012-13. The Proposed increase of 25% this year is past increase & next year gap will be of similar type, the situation becomes worse. The regulatory asset should be absorbed by govt.

4. A.10 schedule of general & miscellaneous charges service charge at page 58 has to be justified.

5. Schedule of service connection charge:

i) The service connection charges for domestic service is specified, but for NRS no charges are specified.

ii) For Industrial loads up to 60 KW, service connection charges are specified,& beyond that not given .

iii) For Street lighting, no service connection charges are specified.

4.3.5.1 Response of ED Chandigarh

1. **Conservation Of Energy**

   The Bachat Lamp Yojana (BLY) has already been initiated in UT Chandigarh in collaboration with BEE.

2. **Electricity Duty Charges**

   The Electricity duty is a State subject and the revenue from the Electricity duty or any other taxes and duties cannot be the receipt of the licensee as such cannot be taken in the ARR.

3. **Summary Of Aggregate Revenue Requirement**

   The gap of Rs 227.32 core has been depicted for the FY 2011-12 which has been proposed by the ED Chandigarh to be the regulatory asset. The proposed hike in the tariff is 25% for the FY 2011-12. As per chapter II, Section 8 of the “Terms and conditions for determination of Tariff "Regulation 2009, the regulatory assets can be allowed by the commission.

4. Schedule And General And Miscellaneous Charges

As per section 46 of the electricity ACT 2003,"the state commission may by regulations, authorize a distribution licenses to charge from a person requiring a supply of electricity in pursuance of section 43 of the Act any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply"

5. Schedule Of Service Connection Charges

The charges for NRS have also been specified under the heading of "SERVICE CONNECTION CHARGES for DS consumer"

Beyond the load of 6o KW, the consumer has to bear the cost of the electrical equipments as per section 3.4 of the electricity supply code regulation 2010.

The service connection charges have been specified at pg no 59 of the ARR

4.3.6 Objector No 3: Sri D.S Chahal, President of Chandigarh Residents Social Welfare Federation, Chandigarh and

4.3.7 Objector No 4: Sri R.K. Kaplash, chairman, consumer, Association, Chandigarh

The Engineering Department of UT Chandigarh has revised the electricity tariff under Notification dated 30th June 2005 and amended by Notification dated 3rd August 2005. Just before the revision, the Administration of UT Chandigarh had raised the subsidy limit of various sections of society from 30 units to 150 units per month. This way, all the consumers of below average category became entitled to reap the benefits of subsidized power. The expenditure due to this increase of subsidy limit should have been passed on to the other two categories i.e average and above average category equitably but unfortunately this has not been done. The burden of increase has mainly been passed on to the average category leaving the above average category almost untouched.

Proof:

(i) The highest rate of Rs. 3/- per unit in the old tariff has been brought down to Rs. 2.90 per unit in the revised tariff to give benefit to the above average category. On the other hand, the rate of Rs. 1.65, Rs. 2.00 and Rs. 2.80 per unit average charges raised have been to Rs. 2.90 per unit in the new tariff.

(ii) The Department has wrongly enforced the 2 part tariff system by reducing the domestic categories from 5 to 2 and making the rate of Rs. 2.90 applicable to both average and above average categories. They have, however, failed to realize that 2 part tariff is not applicable to domestic category users. Para 8.4 of Tariff Policy of Government of India clearly states that 2 part tariff will apply when there are fixed and variable charges based on time differential and when the demand exceeds 1 MW in a year. This tariff is clearly applicable to commercial users and not domestic users. The department has done great injustice to the average category by merging them with above average category as their paying capacities are different.

(iii) This system is also in vogue in all the departments of electricity all over India. It may be stated that the tariffs of all the states in India are determined by their respective State Electricity Regulatory Commission. The revised tariff of UT Chandigarh has discarded this system as its tariff was not determined by the Joint Electricity Regulatory Commission, which had been formed before the issuance of Notification but the UT Chandigarh did not get it approved from it. This is a clear cut violation of the statutory provisions and lacks authority on the basis of two other systems.

(iv) The most derogatory effect of this new system of billing can be gauged by the fact that the electricity bills of consumers using 151, 225, 300 and 350 units per month have increased by 54 per cent, 46% 37%, 30% and 25% respectively as compared to the billing based on the old tariff. On the other hand the bill of above average category consumers using 1500, 2000 and 3000 units per month have increased by only 2.8%, 1.2% and minus 0.36% respectively. In this way the privileged class has been benefited to the maximum extent and the average class has been discriminated with.

(v) We fail to understand as to why a suitable revised tariff could not be brought about which could pass the increase equitably to both the categories and why the approval of the Joint Electricity Regulatory Commission (JERC) was not obtained before the issue of Notifications.

The matter was taken up with the department by Consumer Organizations but the department did not pay heed to any representation.

(vi) We have learnt that Consumers Association Chandigarh has filed a PIL in the Punjab and Haryana High Court but as usual the court verdict is taking time and the poor average category consumers are suffering. We therefore, approach your honour to form a committee comprising of representatives of electricity department, consumer organizations and some leading social personalities, representatives of Chandigarh Social Welfare Federation who could jointly sit and decide about the revised tariff but giving justice to all categories of consumers. The department of Electricity can then approach the High Court with jointly agreed solution and withdraw the case from the Honourable High Court and end litigation.

4.3.6.1 Response of ED Chandigarh

i) to iii) The Engineering Department has revised the Electricity Tariff under notification on dated 30th June 2005 and amended by notification dated 3rd August 2005. The consumer Association Chandigarh has filed a PIL in the Punjab and Haryana High Court and the matter is sub-judice.

However, the Joint Electricity Regulatory Commission vide Terms and Conditions for Determination of Tariff) Regulations, 2009 dated 08-02-2010 Chapter III section 12 has provided that

"Each generating company and the licensee shall file Tariff Application on or before 30th November each year with the Commission, in the format as may be laid down by the Commission which shall include statements containing calculation of the expected aggregate revenue from charges under its currently approved tariff and the expected cost of providing services i.e. Aggregate Revenue Requirement (ARR) during the Previous Year, Current Year and Ensuing Year. The information for the previous year should be based on the audited accounts, if available. The Tariff Application shall also contain tariff proposals so as to fully cover the gap between the expected aggregate revenue at the prevalent tariff and the expected cost of service including schemes for reduction in loss levels and other efficiency gains to be achieved"

As such UT Chandigarh is required to file the tariff application for ARR and the proposed tariff for the FY 2011-12 in accordance with the provisions of the regulations.

(iv) The amount of bill for the consumers using 151 units, 225 units, 300 units, 350 units, 1500 units, 2000 units and 3000 units per month has been calculated as per the prevailing tariff and the proposed tariff for information please. However, the increase in tariff is also calculated for each case as below:

Sl. No.	No of Units/Months	Amount of bill as per prevailing tariff	Amount of bill as per proposed tariff	% age increase
1	151 units	Rs.437.90	Rs.357.00	-18.47%
2	225 units	Rs.652.50	Rs.623.75	-4.40%
3	300 units	Rs.870.00	Rs.890.00	2.30%

4	350 units	Rs 1015.00	Rs.1067..50	5.17%
5	1500 units	Rs.4350.00	Rs.5425.00	24.71%
6	2000 units	Rs.5800.00	Rs.7325.00	26.29%
7	3000 units	Rs.8700.00	Rs. 11125.00	27.87%

It can be seen from the above that the tariff has been proposed rationally for all the class of the consumers.

The hard copy of the same has already been sent through speed post.

4.4 Commission's View

The objections and their replies given by ED Chandigarh have been dealt with as and where considered appropriate in the Commission order. The Commission considers that the present ARR for FY 2011-12 in no way interferes with court case as it refers to the period prior to FY 2011-12. The process of tariff fixation being followed involving public participation by way of public hearing is in line with the Electricity Act, 2003. Regarding ED Chandigarh to have their own generating station, the same shall be considered by the Commission on merits as and when a proposal received from them.

5. Annual Revenue Requirement 2011-12 - Commission's Analysis and Decisions

5.1 Introduction

The ARR and Tariff petition filed by the ED Chandigarh for 2011-12 on 13th January 2011 was incomplete as some of the data / information required under JERC (Terms and Conditions for Determination of Tariff), Regulations 2009 was not furnished. A hearing was conducted at the Commission's office on 10th February 2011 and ED Chandigarh was directed to furnish the data / information required. ED Chandigarh has submitted the additional information vide (ARR March petition) their letter dated 1st March 2011 on Affidavit. During the process of analysis of the petition, gaps were noticed in the data and further information was required. ED Chandigarh had furnished the further information required in the following references.

1. ED Chandigarh reference No. 1341 dated 28/04/2011
2. ED Chandigarh reference No. 1849 dated 01/06/2011
3. ED Chandigarh reference No nil dated 24/06/2011 submitted during hearing held on the same date at JERC Gurgaon.

   The additional data / information submitted by the ED Chandigarh in the above references is taken into consideration while analyzing the ARR & Tariff Petition in the order.

5.2 Consumer Categories

ED Chandigarh serves about 205802 consumers as on 31st March 2011 in its area of operation and the consumers are broadly categorized as under:

- Domestic
- Commercial
- Large supply
- Medium power
- Small power
- Agriculture
- Public lighting
- Bulk supply and
- Others

The ED Chandigarh serves the consumers at different voltages at which the consumers avail supply.

5.2.1 Projected Consumer Growth and connected load

ED Chandigarh has furnished the category wise consumers (actuals), over the last six years (2004-05 to 2009-10), estimated for 2010-11 (actuals for April-December 2010 and estimated for January-March 2011) and projected consumer base for FY 2011-12. The category wise number of consumers for FY 2004-05 to FY 2009-10, estimated number for the year 2010-11 and projected for FY 2011-12 as per the licensee are given in Table 5.1 (A).

Table 5.1 (A): Category-wise Consumer Base

Sl.No.	Category	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	Cagr 5 years	Year on year growth	FY 2010-11	FY 2011-12
1.	Domestic	125542	140607	160292	162105	165121	167208	5.9%	1.3%	169288	176060
2.	Commercial	16923	19462	23354	23536	24066	24420	7.6%	1.5%	24619	25604
3.	Large supply	92	96	99	102	103	102	2.0%	-1.0%	121	124
4.	Medium power	721	754	786	865	879	884	4.2%	0.6%	1023	1053
5.	Small power	1096	1171	1226	1359	1371	1409	5.1%	2.7%	1500	1560
6.	Agriculture	172	172	164	163	163	167	-0.6%	2.5%	202	202
7.	Public lighting	513	516	538	546	554	568	2.1%	2.5%	590	602
8.	Bulk supply and	111	157	167	190	219	258	18.4%	17.8%	301	310
9.	Temporary Supply	347	364	294	261	265	266	-5.2%	0.4%	288	288
	Total	**145517**	**163299**	**186930**	**189127**	**192741**	**195282**	**6.1%**	**1.3%**	**197932**	**205802**

Source: Consumer Base for FY 2004-05 to FY 2008-09 from Table 1 of January Petition (ARR).
Consumer Base for FY 2009-10 to FY 2011-12 from Table 1 of March Petition(Additional information)

The category wise consumers and connected load is given by ED Chandigarh as Table 5.1 (B).

Table 5.1 (B): Growth of consumers and connected load

Sl. No.	Category	FY 2008-09		FY 2009-10		FY 2010-11		FY 2011-12	
		No of Consumers No's	Connected Load KW	No of Consumers No's	Connected Load KW	No of Consumers No's	Connected Load KW	No of Consumers No's	Connected Load KW
1	Domestic	165121	588925	167208	609933	169288	632911	176060	658227
2	Commercial	24066	260796	24420	274628	24619	289606	25603	303507
3	Large supply	103	64321	102	65937	121	67759	124	68978
5	Medium supply	879	51222	884	53566	1023	56077	1053	58207
4	Small power	1371	17398	1409	18484	1500	19659	1560	20387
6	Agricultural	163	986	167	1006	202	1028	202	1028
7	Public lighting	554	3845	568	2966	590	4092	602	4190
8	Bulk supply	219	27119	258	42977	301	68160	310	69455
9	Others	265	8654	266	8763	288	8899	288	8899
	TOTAL	**192741**	**1023266**	**195282**	**1078260**	**197932**	**1148191**	**205802**	**1192878**

Source: Derived from table 1 & 2 of January Petition (ARR and Additional Information March Petition.

5.2.2 Energy Sales

The category wise sales projected by ED Chandigarh in the petition for approval of ARR are examined in the following sections.

5.3 Overall approach to sales projections

ED Chandigarh has projected the category wise energy sales for FY 2011-12 based on the past sales over the six year period (FY 2004-05 to FY 2009-10). The ED Chandigarh has considered various options and finally considered the CAGR of 5 year and 3 year periods and the growth is applied over the computed consumption of the FY 2010-11 (actual consumption). Having considered various options the ED Chandigarh has projected the energy sales for FY 2011-12 at 2 to 5% for various categories of consumers over the sales of FY 2010-11.

5.4 Projected Energy Sales for FY 2011-12

ED Chandigarh has furnished the category wise past energy sales from FY 2004-05 to FY 2009-10 as given in Table 5.2 (A) below:

Table 5.2 (A): Past trend in category wise energy sales and sales projected for FY 2011-12

Sl. No.	Consumer Category	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	3 years CAGR of 2009-10 over 2006-07 (%)	5 years CAGR of 2009-10 over 2004-05 (%)	5 years CAGR of 2010-11 over 2005-06 (%)
1	Domestic	382	397	425	450	433	489.22	538.14	4.80	5.07	5.43%
2	Commercial	284	301	313	313	318	331.94	355.17	1.98	3.17	5.72%
3	Large Supply	128	134	138	142	145	141.33	148.39	0.80	2.00	0.92%
4	Medium Supply	72	78	83	91	101	107.37	112.74	8.96	8.32	2.72%
5	Small Power	12	13	14	16	17	19.07	20.97	10.85	9.71	10.16%
6	Agriculture	2	2	2	1	1	1.02	1.07	-20.10	-12.60	-3.95%
7	Public Lighting	15	15	16	15	14	14.5	15.08	-3.23	-0.68	2.61%
8	Bulk Supply	26	29	28	33	39	57.71	60.02	27.26	17.29	20.28%
9	Others	89	87	46	95	124	115	120.5	35.72	5.26	-20.62%
	Total (MU)	**1010**	**1056**	**1065**	**1156**	**1192**	**1277.16**	**1372.08**	**6.24**	**4.81**	

Source: (Table 3 of January Petition) and sales for FY 2010-11 as per affidavit dated 20th June 2011

The energy sale for the FY 2011-12 has been provided later on as actual vide affidavit dated 20th June, 2011.

Table 5.2 (B) Actual Energy Sale for FY 2010-11

Sl.No.	Category	Energy Sale for FY-2010-11	5 years CAGR of 2010-11 over 2005-06 (%)
1.	Domestic	517.19	5.43%
2.	Commercial	397.57	5.72%
3.	Large supply	140.26	0.92%
4.	Medium power	89.22	2.72%
5.	Small power	21.09	10.16%
6.	Agriculture	1.64	-3.95%
7.	Public lighting	17.06	2.61%
8.	Bulk supply and	73.00	20.28%
9.	Others	27.43	-20.62%
	Total (MU)	**1284.45**	

ED Chandigarh had projected the category wise energy sales for FY 2011-12 given in Table 5.3 below:

Table 5.3: Projected Energy sales for FY 2011-12

MU

Sl.No.	Category wise energy sales	FY 2009-10	FY-2010-11 (Estimated)	FY 2010-11 (Actual)	FY 2011-12
1.	Domestic	489.22	538.14	517.19	565.05
2.	Commercial	331.94	355.17	397.97	372.93
3.	Large supply	141.33	148.39	140.26	151.36
4.	Medium power	107.37	112.74	89.22	117.25
5.	Small power	19.07	20.97	21.09	22.02
6.	Agriculture	1.02	1.07	1.64	1.07
7.	Public lighting	14.50	15.08	17.06	15.68
8.	Bulk supply and	57.71	60.02	73.00	62.42
9.	Others	114.76	120.5	27.43	120.50
	Total (MU)	**1276.91**	**1372.08**	**1284.45**	**1428.28**

Source: Extracted from Table 3 of Additional information (March Petition) and actual sales for FY2010-11 as per affidavit dated 20th June, 2011

ED Chandigarh has given the growth of consumer base, the connected load and the energy sales etc for the past period (FY 2004-05 to FY 2009-10). The specific consumption and the growth for all categories of consumers has been derived from tables 5.1 & 5.3 and given in Table 5.4 below:

Table 5.4: Category wise Specific consumption of consumers

(kWh / consumer / month)

Sl. No.	Consumer Category	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	3 years CAGR of 2009-10 over 2006-07 (%)	3 years CAGR of 2010-11 over 2007-08 (%)	5Year CAGR FY 2005-06 to FY 2010-11 (%)	year on year of 2010-11 over 2009-10 (%)
1	Domestic	254	235	221	230	219	244	265	3.36%	4.83%	2.43%	8.61 %
2	Commercial	1398	1289	1117	1108	1101	1133	1126	0.48%	0.54%	-2.67%	- 0.62%
3	Large supply	115942	116319	116162	116013	117314	115196	118590	-0.28%	0.74%	0.39%	2.95%
4	Medium power	8322	8621	8689	8767	9575	10087	10224	5.10%	5.26%	3.47%	1.36%
5	Small power	912	925	952	981	1033	1124	1182	5.69%	6.41%	5.03%	5.16%
6	Agriculture	969	969	1016	511	511	499	487	-21.10 %	-1.59%	-12.86%	- 2.40%
7	Public lighting	2437	2422	2478	2289	2106	2201	2155	-3.87%	-1.99%	-2.31%	- 2.09%
8	Bulk supply and	19520	15393	13972	14474	14840	18734	16393	10.27%	4.24%	1.27%	-12.50 %
9	Temporary Supply	21374	19918	13039	30332	38994	36028	37765	40.32%	7.58%	13.65%	4.82%

5.5 Analysis of energy sales projected and Commission's view

ED Chandigarh projected the category wise energy sales for FY 2011-12 based on past trends over a period of four to six years (2004-05 to 2010-11).

Sales projections for FY-2011-12, as given by ED Chandigarh, have been calculated by increasing the energy sales of 2010-11 by the growth as arrived on the basis of CAGR method. However, later on ED Chandigarh have revised the energy sales of 2010-11 by substituting the estimates with actuals for the year. Therefore, the forecasted sales figures as given by ED Chandigarh for the year 2010-11 & 2011-12 (Table 5.3) become irrelevant The forecast based on CAGR of past sales is a tried and tested method and is extensively used. Therefore the estimated sales for FY-2011-12 have now been calculated on actual sales of 2010-11 employing five year CAGR based growth. Thus, the Commission has considered CAGR of last five years (i.e. 2010-11 over 2005-06) for forecasting energy sales for FY-2011-12 for all categories except bulk category consumers.

The energy sale as approved for the FY 2011-12 is discussed consumer category wise as below:

1. Domestic

It is observed that domestic consumers have increased by about 5.9 % over the last five years and latest year on year (YoY) growth is about 1.3%(as per table 5.1). This shows near saturation in the growth of consumers. The specific consumption of consumers (Table 5.4) over the last three years gives a growth of 4.83. Based on the actual energy sales furnished by ED Chandigarh, the five year CAGR (FY 2005-06 to FY 2010-11) works out to 5.43% (Table 5.2(A)) and is considered reasonable.

The energy sales estimated in the Seventieth Electric Power Survey (17^{th} EPS) is 766 MU which is considered to be on higher side. The energy sales forecast based on the growth of 5.43% on actual sales of 517.19 MU for FY 2010-11 comes to 545.28 MU

The Commission approves the energy sales at 545.28 MU for FY 2011-12.

2. Commercial

The 5 year CAGR (FY 2005-06 to FY 2010-11) of energy sales has been calculated as 5.72% based on past actual data furnished by ED Chandigarh. Considering the CAGR of 5.72%, over actuals of 397.57 MU (FY 2010-11), the energy sales for FY 2011-12 has arrived at 420.31 MU.

The energy sales estimated in the 17th EPS by CEA is about 485MU for the year which is considered on higher side. However the Commission considers energy sales of 420.31 MU based on five year CAGR as appropriate.

The Commission approves the energy sales of 420.31 MU for commercial category for FY 2011-12..

3. Large Industrial Power Supply

On the basis of five year CAGR (FY 2005-06 to FY 2010-11) (Table 5.2(A)), growth of energy sales has been calculated as 0.92% based on past actual data furnished by ED Chandigarh. Accordingly, the energy sales for FY 2011-12 comes to 141.55 MU.

The energy sales estimated by CEA in 17th EPS are about 251MU which is considered on higher side. The Commission consider energy sale for FY 2011-12 at 141.55 MU calculated on the basis of five year CAGR of 0.92% as reasonable.

The Commission approves the energy sales of 141.55 MU for large industrial power supply for FY 2011-12.

4. Medium Supply

The five-year CAGR computed for the period FY 2005-06 to 2010-11 is 2.72%. Considering the five year CAGR for period FY 2005-06 to FY 2010-11, the energy sales are calculated as 91.65 MU.

The Commission accordingly approves the energy sales of medium industrial supply at 91.65 MU for FY 2011-12.

5. Small power

The five year CAGR (FY 2005-06 to FY 2010-11) was 10.16%. The Commission considers the growth rate of 10.16% and calculated energy sales of 23.24 MU for FY 2011-12 as reasonable.

The Commission approves the energy sales of small industrial power at 23.24 MU for FY 2011-12.

6. Agriculture

The five year CAGR for a period FY 2005-06 to FY 2010-11 is calculated as -3.95%. Being predominantly urban area, probably there is no growth in agricultural consumption.

However, the Commission has not considered any growth and accepts the energy sales at the same level of 2010-11 at 1.64 MU for FY 2011-12 also.

The Commission accordingly approves energy sales for agricultural category at 1.64 MU for FY 2011-12.

7. Public lighting

ED Chandigarh has projected the energy sales for this category at 15.68 MU for FY 2011-12. The five year CAGR for the period FY 2005-06 to FY 2010-11 has been calculated as 2.61%.The energy sales, accordingly, have been arrived at 17.51 MU for FY 2011-12.

The Commission accordingly approves energy sales for public lighting at 17.51 MU for FY 2011-12.

8. Bulk Supply

The energy sales growth during the past was considerably high. The five year CAGR (FY 2005-06 to FY 2010-11) is calculated as 20.28% as per the actual energy sales furnished for FY 2010-11.The growth during FY 2009-10 over FY 2008-09 was about 48%(39 MU to 57.71 MU), this sudden jump in the consumption is not explained. Further, the growth during FY 2010-11 over FY 2009-10 is reduced to 26.5%. The specific consumption per consumer during the last three years (2007-08 to 2010-11) recorded a growth of 4.24% (Table 5.4). ED Chandigarh have not stated about any pending specific request in the category to justify the high growth rate. Accordingly, sales growth rate of 10% is considered reasonable.

In view of above, the Commission considers energy sales at 80.30 MU at a growth rate of 10% for FY 2011-12 as reasonable.

The Commission accordingly approves energy sales for bulk supply at 80.30 MU for FY 2011-12.

9. Others

This category comprises of

a) Temporary Supply

b) Free supply to Electricity Officers and Employee's concession

c) Rehri Market

ED Chandigarh stated that items b) and c) are merged with respective categories. Ultimately temporary supply only remained in the category of others. Free supply to electricity officers and employees concession, rehri market are merged in the respective domestic and commercial categories.

ED Chandigarh has projected the energy sales of 120.50MU to this category for FY 2011-12 at a zero growth. The five year CAGR (FY 2005-06 to FY 2010-11) is calculated as -20.62% (negative growth) based on the actual sales for FY 2010-11. Being temporary supply, the growth in the past may not be a consistent trend.

Now as item b and c are shifted to respective categories, it is assumed that there is no growth for this category for FY 2011-12. Energy sales of 27.43MUacutal for FY 2010-11 are considered reasonable for FY 2011-12 also.

The Commission accordingly approves energy sales for others (temporary supply) at 27.43 MU for FY 2011-12.

5.6 Category-wise Energy Sales

The category wise energy sales for FY 2011-12 as approved by the Commission above and the energy sales projected by ED Chandigarh are given in Table 5.5 below:

Table 5.5: Category wise energy sales for FY 2011-12

(MU)

Sl. No.	Consumer Category	Energy sales projected by ED-Chandigarh	Energy sales approved by the Commission
1.	Domestic	565.05	545.28
2.	Commercial	372.93	420.31
3.	Large supply	151.36	141.55
4.	Medium power	117.25	91.65
5.	Small power	22.02	23.24
6.	Agriculture	1.07	1.64
7.	Public lighting	15.68	17.51
8.	Bulk supply and	62.42	80.30
9.	Temporary supply	120.50	27.43
10.	**Total**	**1428.28**	**1348.89**

5.7 Transmission And Distribution (T&D) Losses

It is submitted by ED Chandigarh that it has achieved significant reduction in transmission and distribution loss from FY 2006-07 onwards to FY 2009-10 as a result of execution of various system improvement works under the plan schemes. But however, there is an increase in the losses from 17.79% in FY 2009-10 to 18.96% in FY 2010-11.

The T&D loss as given by ED Chandigarh from FY 2006-07 to 2009-10 are shown in Table 5.6 below:

Table 5.6: T&D Losses

Year	T&D loss (%)
FY 2006-07	19.29
FY 2007-08	18.67
FY 2008-09	17.89
FY 2009-10	17.79

(Source: Extracted from Table 4 of additional information)

The ED has projected the T&D loss for FY 2010-11 and FY 2011-12 as under:

FY 2010-11	17%
FY 2011-12	17%

ED Chandigarh, in view of lower sales increase during FY 2011-12, has proposed to maintain the same level of 17% loss during the year. They have further submitted that the T&D loss of 17% includes 3% loss in the intra-state transmission system. The distribution loss would be 14%.

Subsequently ED Chandigarh has furnished actual power purchase and sales during FY 2010-11 ***(vide affidavit dated 20th June 2011 as detailed below :)***

SNo.	Particulars	FY 2010-11
1	Energy Purchase (MU)	1587.89
2	Energy sales [04/2010 to 03/2011 (Actual)] (MU)	1284.45

However, as per station wise power purchase details given by Asst. power controller, ED Chandigarh purchased 1642.69 MU power including 161.64 MU from PTC / Traders and UI purchases of 10.75 MU, the actual power available at UT periphery comes to 1584.96 MU, based on which the line losses are worked out as under:

SNo.	Particulars	FY 2010-11
1	Energy Purchase (MU)	1584.96
2	Energy sales [04/2010 to 03/2011 (Actual)] (MU)	1284.45

3	T&D loss (MU)	300.51
4	T&D loss (%)	18.96 %

Keeping in view the above loss figure of 18.96% for FY 2010-11 and this being the first ARR and Tariff Petition of ED Chandigarh, T&D Losses of 17% for FY 2011-12 as proposed by them, is accepted by the Commission.

5.7.1Inter-State Transmission Loss

It is submitted by ED Chandigarh that inter-state transmission loss has been projected to be 3.89% for FY 2010-11 and FY 2011-12 by considering recent 52-week moving average of regional losses, the same is accepted.

5.8 Energy Requirement

The total energy requirement to meet the demand of the system would be the sum of estimated energy sales and the Transmission and Distribution loss of its system as above. The estimated energy requirement for FY 2011-12 tabulated in Table 5.7 below:

Table 5.7: Energy Requirement for FY 2011-12

(MU)

Sl. No.	Particulars	As projected by ED Chandigarh	As approved by the Commission
1.	Estimated energy sales	1428	1348.89
2.	Distribution loss in MU and percentage loss	293 (17%)	276 (17%)
3.	Energy requirement at periphery of Chandigarh	1721	1625.17
Source: Extracted from Table 5 of Additional information ARR March petition			

5.9 Allocation of power from central generating stations and energy available to ED Chandigarh

5.9.1 As mentioned earlier the Union Territory of Chandigarh does not have its own generation. It depends entirely on the allocation of power from central generating stations, purchases from other sources and from the market in case of shortfall. ED Chandigarh has been allocated power from various central generating stations of NTPC in Northern & Eastern regions, NHPC, Nuclear Power Corporation (NPCIL) and others.

For FY 2011-12, ED Chandigarh has considered the firm allocation and unallocated power from central generating stations of NTPC, NHPC and NPCIL, Tehri, SJVNL and Sewa-II as per the allocation orders of Ministry of Power, Government of India during FY 2010-11.

The allocation from various central generating stations and other sources for FY 2011-12 is shown in Table 5.8 below:

Table 5.8: Allocation of power from Central Generating Stations (CGS) and other sources for FY 2011-12

Sl. No.	Power Station	Installed capacity (MW)	ED CHANDIGARH Share (%)	Allocation to Chandigarh(MW)
I.	**NTPC**			
1.	Singrauli	2000	0.80	16.10
2.	Rihand I	1000	1.80	17.99
3.	Rihand II	1000	1.61	16.08
4.	Unchahar I	420	0.74	3.11
5.	Unchahar II	420	1.52	6.38
6.	Unchahar III	210	1.27	2.67
7.	Anta	419	2.00	8.37
8.	Auriya	663	1.31	8.67
9.	Dadri	830	0.99	8.19
10.	Kahalgaon II	1500	0.20	3.00
II	**NHPC**			
11.	Salal	690	0.27	1.86
12.	Tanakpur	94	1.28	1.20
13.	Chamera I	540	3.90	21.06
14.	Chamera II	300	1.63	4.89
15.	Uri	480	0.62	2.98
16.	Dhauliganga	280	1.52	4.27
17.	Dulhasi	390	1.28	4.97
18.	Sewa II	160	1.79	2.86
III.	**NPCIL**			
19.	NAPS	440	1.92	8.45
20.	RAPP (Unit 5&6)	220	1.96	4.32
IV.	**Other sources**			
21.	Tehri	1000	1.13	11.32
22.	BBMB (3.5%)	1325	-	-
23.	SJVNL	1500	0.76	11.47
	Total			
	Total from CGS and other sources (I+II+III+IV)			**170.21**

Source: Extracted from Table 22 of ARR (January, 2011 Petition) (Except for BBMB)

In addition ED Chandigarh has an arrangement with BBMB and others to purchase power to meet the short fall. The Installed Capacity for BBMB is not furnished in the petition, the data was provided by ED Chandigarh subsequently during the hearing

5.9.2 ED Chandigarh has adopted the following methodology to estimate the energy availability from Central Generating Stations.

- Average share (including unallocated share) of the petitioner in various central generation stations as per latest revised allocation orders of Government of India during FY 2010-11.
- Past availability trends for thermal stations as per NRPC REA / CEA reports.
- Three years average or maximum gross generation as the case may be from hydro power stations as per CEA report.
- Auxiliary consumption based on latest CERC norms.
- Actual fixed costs for CGS & other stations as per latest available bills.
- Actual energy charges and FPA charges as per latest available bills.
- Other costs comprise of income tax, incentives and other charges.

It is submitted that, since the unallocated share of the petitioner keeps on changing year on year, the projected quantum of power purchase has not been arrived at based on past trends. Instead weighted average allocation for FY 2010-11 has been considered to arrive at projected power availability.

The following PLFs are adopted to arrive at the generation from each of the generating stations for FY 2011-12.

Station	**Average PLF of last 3 years (%)**
NTPC	
Singrauli	91.72
Rihand I	98.67
Rihand II	94.96
Unchahar I	95.55
Unchahar II	94.76
Unchahar III	98.70
Anta	72.32
Auriya	78.57
Dadri	76.20
Kahalgaon II	66.69
Hydro stations	As per CEA designed energy
NPCIL	
NAPP	21.11 (Average of last 4 years)
RAPP	21.11

Source: Extracted from Table 12, 13 & 14 of ARR January Petition

Based on the above methodology / assumptions, ED Chandigarh has estimated the energy entitlement from CGS at 1476.48 MU for FY 2011-12 ex-bus (generation – auxiliary consumption). The summary of power purchase during the years 2009-10, 2010-11 (estimated) and 2011-12 (projected) as furnished by ED Chandigarh is given in Table 5.9 below:

Table 5.9: Summary of energy purchases

(MU)

Sl. No.	Power Station	FY 2009-10 (Actuals)	FY 2010-11 (Actuals) by ED Chandigarh	FY 2010-11 (Actuals) by Assistant power Controller	FY 2011-12 (Projected)
I.	**NTPC**				
1.	Singrauli	94.05	115.60	115.60	118.55
2.	Rihand I	130.72	113.50	113.50	115.26
3.	Rihand II	105.07	109.79	109.79	110.91
4.	Unchahar I	22.02	16.07	16.07	17.16
5.	Unchahar II	42.36	33.76	33.76	35.46
6.	Unchahar III	19.08	14.23	14.23	15.13
7.	Anta	36.03	32.54	32.54	36.01
8.	Auriya	47.76	34.83	34.83	39.61
9.	Dadri	40.80	36.67	36.67	40.58
10.	Kahalgaon II	29.91	14.20	14.20	14.68
II	**NHPC**				
11.	Salal	7.97	8.74	8.74	9.43
12.	Tanakpur	5.35	4.56	4.56	5.74
13.	Chamera I	79.41	88.36	88.36	95.87
14.	Chamera II	22.80	24.66	24.66	27.58
15.	Uri	16.67	18.78	18.78	18.89
16.	Dhauliganga	16.86	17.54	17.54	20.35
17.	Dulhasri	27.44	28.33	28.33	32.60
III.	**NPCIL**				
18.	NAPS	32.02	29.81	29.81	22.64
19.	RAPP (Unit 5&6)	-	41.41	41.41	29.52
IV.	**Other sources**				
20.	Tehri	21.36	34.87	34.87	34.06
21.	SJVNL	73.26	79.03	76.83	82.59
22.	Sewa II	-	6.10	6.10	5.39
	Bhakra Nangal	546.35	569.12	569.12	548.66
	Sub total	1396.91	1472.50	1470.30	1476.48
	External losses	34.56	57.82	57.73	58.00
	Net power available at the periphery of UT	1362.35	1414.68	1412.57	1418.48
	PTC/Traders	130.89	161.64	161.64	305.33
	UI purchases	60.00	10.75	10.75	-
	Total power available at at the periphery of UT	1553.24	1587.07	1584.96	1723.81
	Power requirement				1721
	Surplus				2..81

Source: Format 4 & Table 4 of additional information March Petition

Note: ***The power purchase figure for FY 2010-11 has been subsequently revised by Electricity***

Department –Chandigarh during the public hearing conducted on 6th May 2011. The Assistant Power Controller has also furnished with power purchase data for FY 2010-11. There is variation in the SJVNL figure among the two sources as indicated in the above table.

5.9.3 Energy Balance Projected by ED Chandigarh

The energy balance as estimated by ED Chandigarh for the years 2011-12 is given in Table 5.10 below:

Table 5.10: Energy Balance projected by ED Chandigarh

(MU)

Sl. No.	Particulars	2011-12 (Projected)
1.	Energy sales	1428
2.	Add: Losses	293
3.	T&D loss (%)	17
4.	Energy requirement at periphery of UT (1+2)	1721
5.	Pool losses in PGCIL system	58
6.	Energy requirement to be purchased by ED Chandigarh	1779
7.	Energy available from CGS	1782
8.	Energy surplus / (Deficit)	3

Commission's Analysis

5.9.4 Entitlement of Energy

As mentioned in para 5.9.1 above, ED Chandigarh has considered the quantum of power from CGS based on allocation notified by Government of India / Northern Regional Power Committee (NRPC) w.e.f. 2011-12 and the availability of energy for FY 2011-12.

NRPC has not yet finalized the allocation of power from central generating stations and other sources to various constituents of N. Region for FY2011-12. It has however considered 1660MU in the load generation balance for FY 2011-12 as per their communication No. NRPC/SE(O)/LGBR/2011-12 dated 25th March, 2011.

This is however exclusive of purchase from PTC/Traders.

The NRPC may be changing the unallocated share from time to time based on the allocation by Ministry of Power, Government of India.

The Commission however approves the purchase of power from various CGS as projected by ED Chandigarh for FY 2011-12 as given in Table 5.11 below:

Table 5.11 : Power Purchase approved by the Commission for FY 2011-12

Sl. No.	Power Station	Energy available from CGS (MU)
I.	**NTPC**	
1.	Singrauli	118.55
2.	Rihand I	115.26
3.	Rihand II	110.91
4.	Unchahar I	17.16
5.	Unchahar II	35.46
6.	Unchahar III	15.13
7.	Anta	36.01
8.	Auriya	39.61
9.	Dadri	40.58
10.	Kahalgaon II	14.68
II	**NHPC**	
11.	Salal	9.43
12.	Tanakpur	5.74
13.	Chamera I	95.87
14.	Chamera II	27.58
15.	Uri	18.89
16.	Dhauliganga	20.35
17.	Dulhasi	32.60
III.	**NPCIL**	
18.	NAPS	22.44
19.	RAPP (Unit 5&6)	29.52
IV.	**Other sources**	
20.	Tehri	34.06
21.	SJVNL	82.59
22.	Sewa II	5.39
	Total	**927.81**

Source extracted from format 4 of Additional Information March Petition

Apart from the above purchases from CGS, ED Chandigarh has proposed to purchase power from Bhakra Nangal (BBMB) and PTC/Traders during 2011-12 as under to meet the demand.

BBMB	548.66MU
PTC/Traders	305.33 MU
Total	**853.99 MU**

The Commission approves the total power purchase as given in Table 5.12 below:

Table 5.12: Power Purchase approved for FY 2011-12

Sl.No.	Source	Quantum of Energy (MU)
1	Central Generating stations	927.81
2	BBMB	548.66
3	PTC / Traders	206.14
	Total	**1682.61**

5.10 Energy Balance

5.10.1 The summary of energy balance projected by ED Chandigarh and approved by the Commission are given in Table 5.13 below:

Table 5.13: Energy Balance for FY 2011-12

(MU)

Sl. No.	Particulars	Projected by ED Chandigarh	Approved by the Commission
	Energy Requirement		
1.	Energy sales	1428	1348.89
2.	T&D loss in MU @ 17%	293	276.28
3.	Energy requirement at the periphery of Chandigarh	1721	1625.17
4.	Pool loss in PGCIL network	58	57.64
5.	Energy required to be purchased	1779	1682.81
6.	Energy available from CGS and other sources	1782	1682.81
7.	Energy surplus / (deficit)	3	0

As approved by the Commission, there would be no energy surplus for FY 2011-12.

5.11 Revenue Requirement – FY 2011-12

ED Chandigarh has projected a total expenditure of Rs.832.42 crore and a return on equity of Rs18.51 crore for the year FY 2011-12. The summary of expenses under each head is given in Table 5.14 below:

Table 5.14: Expenses projected for FY 2011-12

(Rs. crore)

Sl. No.	Particulars	Expenses Projected by ED Chandigarh
1.	Power purchase cost	717.80
2.	Employee cost	57.92
3.	R&M expenses	7.58
4.	Administration and General Expenses	3.07
5.	Depreciation	15.41
6.	Interest charges (including interest on working capital)	28.18
7.	Provision for Bad debts	2.44
8.	**Total expenses**	**832.42**
9.	Return on Equity	18.51
	Total ARR	**850.93**

Source: Table 11 of additional information

The expenses projected by ED Chandigarh under each head and the Commission's analysis are discussed below:

5.12 Power Purchase Cost

ED Chandigarh has no Power generation of its own. The major sources from which the ED Chandigarh procures power are

a) Central generating stations (CGS) Viz. NTPC, NHPC, NPCIL
b) Other sources viz BBMB, SJVNL & THDC

Chandigarh receives fixed allocated share from CGS and also a variable quantum of Power from unallocated share in various Central generating stations at different intervals during a year.

It is stated by ED Chandigarh that the cost of power from Central Generating Stations is based on the latest power purchase bills of NTPC, NHPC, NPCIL, Tehri and SJVNL.

The power purchase from BBMB is considered at an average price of Rs.4.63 / unit. The short term power purchase from PTC / Traders is considered at Rs.5.43 / unit

It is submitted by ED Chandigarh that they have not considered the impact of the New Regulations issued by the CERC for generation tariff for the period 1st April 2009 onwards as CERC has not revised the AFC as per new Regulations for these stations.

It is further submitted that it should be allowed to recover any increase in annual fixed costs due to the new Regulations / tariff order of CERC in future years.

Based on the above assumptions ED Chandigarh has estimated the power purchase cost at Rs.717.80 crore including transmission charges for the FY 2011-12 for purchasing of 1778.80 MU as given in Table 5.15 below:

Table 5.15: Power purchase cost for FY 2011-12

Sr.No.	Source	Power purchase (MU)	External loss (%)	Energy received (MU)	Total cost (Rs. crore)
I.	**NTPC**				
1.	Singrauli	118.55	3.89%	113.94	16.89
2.	Rihand I	115.26	3.89%	110.77	21.55
3.	Rihand II	110.91	3.89%	106.59	24.54
4.	Unchahar I	17.16	3.89%	16.49	4.44
5.	Unchahar II	35.46	3.89%	34.09	9.78
6.	Unchahar III	15.13	3.89%	14.54	4.77
7.	Anta	36.01	3.89%	34.61	9.66
8.	Auriya	39.61	3.89%	38.07	10.06
9.	Dadri	40.58	3.89%	39.00	10.57
10.	Kahalgaon II	14.68	7.68%	13.55	4.51
II	**NHPC**				
11.	Salal	9.43	3.89%	9.06	0.70
12.	Tanakpur	5.74	3.89%	5.52	0.86
13.	Chamera I	95.87	3.89%	92.14	24.87
14.	Chamera II	27.58	3.89%	26.51	8.43
15.	Uri	18.89	3.89%	18.18	2.82
16.	Dhauliganga	20.35	3.89%	19.56	5.15
17.	Dulhasti	32.60	3.89%	31.33	14.96
III.	**NPCIL**				
18.	NAPS	22.44	3.89%	21.56	3.89
19.	RAPP (Unit 5&6)	29.52	3.89%	28.37	9.39
IV.	**Other sources**				
20.	Tehri	34.06	3.89%	32.74	14.64
21.	Bhakra (BBMB)	548.66	3.89%	527.32	253.79
22.	SJVNL	82.59	3.89%	79.38	3223
23.	Sewa II	5.39	3.89%	5.18	2.06
24.	**Gross Power Purchase**	**1476.47**		**1418.47**	
25.	PTC/Traders	305.33		305.33	165.66
26.	UI	-3.00		-3.00	36.10
27.	PGCIL				25.50
	Total	1778.80		1720.80	717.80

Source format 4 of ARR Additional Information March Petition

Transmission and other charges

In addition to power purchase costs from Central Generating Stations (CGS) and other sources given above, ED Chandigarh has projected the inter-state transmission charges payable to the PGCIL and RLDC at Rs.25.50 crore for the FY 2011-12.

Commission's Analysis

On account of non-availability of revised approved tariffs, changes in unallocated shares, the Commission for the purpose of calculating power purchase cost for FY 2011-12 has followed the methodology as given here under:

The Commission has got calculated the weighted average cost/unit on the basis of actual power purchase during 2010-11. The average cost/unit so arrived at in the Table 5.16 below has been used for calculating power purchase cost for 2011-12:

Table 5.16: Actual Cost of Power Purchase for FY 2010-11

S.No	Station	Purchase (MU)	External Losses (%)	Energy Received license	FC (Rs. Crores)	VC (Rs. Crores)	Others (Rs. Crores)	Total cost (Rs. Crores)	Average cost Rs/KWH	
									FC	VC
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	NTPC									
1	Singrauli	115.60	3.89	111.10	2.95	8.56	6.15	17.66	0.79	0.74
2	Rihand I	113.50	3.89	109.08	5.98	8.29	8.52	22.79	1.28	0.73
3	Rihand II	109.79	3.89	105.52	8.45	8.89	8.09	25.43	1.51	0.81
4	Unchahar-I	16.07	3.89	15.44	1.04	1.72	1.74	4.50	1.73	1.07
5	Unchahar-II	33.76	3.89	32.45	2.56	3.61	3.81	9.98	1.89	1.07
6	Unchahar-III	14.23	3.89	13.68	1.61	1.83	1.29	4.73	2.04	1.29
7	Anta	32.54	3.89	31.27	2.01	2.81	5.39	10.21	2.27	0.86
8	Auriya	34.83	3.89	33.48	1.72	3.00	5.71	10.43	2.13	0.86
9	Dadri	36.67	3.89	35.24	1.76	3.19	6.05	11.00	2.13	0.87
10	Kahalgaon-II	14.20	7.68	13.11	1.84	2.14	1.01	4.99	2.01	1.51
	Sub-Total for NTPC	**521.19**		**500.37**	**29.92**	**44.04**	**47.76**	**121.72**		
	NHPC									
11	Salal	8.74	3.89	8.40	0.22	0.28	0.11	0.61	0.38	0.32
12	Tanakpur	4.56	3.89	4.38	0.29	0.29	0.10	0.68	0.86	0.64
13	Chamera-1	88.36	3.89	84.92	4.17	4.14	15.56	23.87	2.23	0.47
14	Chamera-2	24.66	3.89	23.70	3.44	3.38	0.14	6.96	1.45	1.37
15	URI	18.78	3.89	18.05	1.32	1.37	0.21	2.90	0.81	0.73
16	Dhauliganga	17.54	3.89	16.86	1.96	2.25	0.07	4.28	1.16	1.28
17	Dulhasti	28.33	3.89	27.23	5.55	5.67	1.32	12.54	2.42	2.00
18	Sewa-II	6.1	3.89	5.86	1.03	0.76	0.08	1.87	1.82	1.25
	Sub-Total	**197.07**		**189.4**	**17.98**	**18.14**	**17.59**	**53.71**		
	NPCIL									
19	NAPS	29.81	3.89	28.65	0	3.88	1.39	5.27	0.47	1.30
20	RAPP	41.41	3.89	39.80	0	9.49	2.95	12.44	0.71	2.29
	Sub-Total	**71.22**		**68.45**	**0**	**13.37**	**4.34**	**17.71**		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	Other Sources									
21	Tehri	34.87	3.89	33.51	4.19	6.78	4.03	15	2.36	1.94
22	Bhakra (BBMB)	569.12	3.89	546.98		227.12	-82.55	144.57	-1.45	3.99
23	SJVLNL	76.83	3.89	73.84	0	20.20	7.75	27.95	1.01	2.56
	SUB TOTAL	680.02		654.33	4.19	254.00				
24	Own Generation									
25	Banking									
26	Renewable									
	TOTAL	1470.30		1412.57	52.09	329.55	-1.08	380.66	0.35	2.23
27	PTC Traders	161.64		161.64	0	80.77	12.35	93.12	0.76	5.00
28	UI	10.75		10.75			42.67	42.67*		0.00
	Other Charges						**7.59**	**7.59**		
29	PGCIL						18.11	18.11		

30	LDC									
31	RLDC									
	Total	**1642.69**		**1584.96**	**52.09**	**410.42**	**79.64**	**542.15**	0.80	2.50

Source: Annexure 3 (mail from Assistant Power controller)
**** This cost includes Power Purchase cost under RPO***

In regard to power purchase from BBMB and PTC/Traders, ED Chandigarh proposed to purchase 548.66 MU from BBMB at Rs.4.63/kWh and 305.33 MU from PTC/Traders at Rs.5.43 / kWh. The cost at which the power is proposed to be purchased from these two sources is examined with reference to market prices during FY 2010-11. As per data available from Market Monitoring Cell, CERC the average prices during FY 2010-11 are as follows:

Purchase through Traders	**Wt. Av. price (Rs/kWh)**
Round the clock (RTC) purchase	4.76
Peak hour purchase	5.23
Off peak purchase	4.69
Purchase from Power Exchange	**Sale price (Rs/kWh)**
Minimum	2.45
Maximum	7.08
Weighted Average price	4.75
UI	

The market prices during FY 2010-11 had been lower than the prices during earlier years.

To purchase from BBMB, the BBMB Board in its 206th board meeting held on 24.1.2011 had reviewed the earlier decisions and approved the rates retrospectively as follows.

S.No	**Decision**	**Period**	**Rate**
1	10L/U/Day (Special Assistance)	w.e.f.1.1.2010	As per Badarpur Thermal Power Stations rate which varies monthly
2	1L/U/Day (Adhoc Allocation)	1.1.2010-31.12.2010 1.1.2011-31.12.2011 1.1.2012-31.12.2012	264 P/KWH 290 P/KWH 319 P/KWH

S.No	Share	Annual availability MU	Rate Rs/KWH	Amount (Rs. Crs)	Avg Cost
1	3.5 % Share	180.00	0.3082	5.55	
2	1 L/U/Day	36.50	2.90	10.59	
3	10 L/U/Day	365.00	3.7763	137.84	
		581.50		153.98	2.65

As per the above revised tariff, the average cost of power purchase from BBMB works out to Rs. 2.65 / KWH. This rate is adopted for power purchase from BBMB during 2011-12.

With regard to purchase from PTC/traders, ED Chandigarh invited bids for purchase of power from April to October 2011. As per statement of bids received and the costs, the lowest rate varies from Rs. 4.17 to Rs. 4.91/kWh. It is proposed to adopt a rate of Rs. 4.50/kWh for purchases from PTC/Traders.

An amount of Rs. 25.50 crore is projected for FY 2011-12 towards PGCIL charges. ED Chandigarh has furnished month wise amount for FY 2010-11 which works out to Rs. 22.35 crore. The projected charges of Rs. 25.50 crore for FY 2011-12 work out to be 14% over the actuals of FY 2010-11. The Commission allows these charges for FY 2011-12 at the same level at Rs. 22.35 crore for the year 2010-11.

Regarding renewable purchase obligation of the licensee, ED Chandigarh has stated as under:

As per JERC procurement of Renewable Energy Regulations 2010, each distribution licensee shall purchase electricity (in kWh) from renewable energy sources at a defined minimum percentage of total consumption of all consumers in the licensed area during a year and proposed the following purchase.

(i) Non solar 20.00 MU

(ii) Solar 8.57 MU

Total 28.57 MU

ED Chandigarh indicated the floor price and forbearance price of non solar is Rs. 1.50/Unit and Rs. 3.90/Unit and for solar it is around Rs. 12.00 & Rs. 17.50/Unit respectively. The total obligation under RPO for UT Chandigarh is indicated at Rs. 20.00 crore.

As per RPO Regulations, dated 30th November 2010, during FY 2011-12, a minimum percentage of 2% has to be procured from renewable energy sources.

The approved energy sales for FY 2011-12 are 1348.89 MU and the obligation of power purchase under RPO is as under:

(i) Non solar 1.70% 22.93 MU

(ii) Solar 0.30% 4.05 MU

Total 26.98 MU

Considering the forbearance price for non solar as Rs. 3.90/ Unit and for solar as Rs. 17.50/ Unit, the power purchase obligation works out to

(i) Non solar 22.93 X 3.90 = Rs. 8.95 crore

(ii) Solar 4.05 X 17.00= Rs. 6.89crore

Total = Rs. 15.75crore say Rs. 16.00 crore

The Commission allows Rs. 16.00 crore towards RPO.

The benefits if availed from MNRE Scheme dated 16.06.2010 shall be adjusted against power purchase cost at the time of true up.

For the purpose of power purchase in a planned manner, the Commission does not consider appropriate to show power purchase through UI as a planned source of power availability and therefore the amount of Rs. 36.10 crore for purchase of power through UI is disallowed.

With the above observations, the Commission approves the power purchases by ED Chandigarh for FY 2011-12 as given in Table 5.17 below:

Table 5.17: Power Purchase cost approved by Commission for FY 2011-12

Sl.No	Particulars	Energy Purchase (MU)	Average fixed Cost Rs/Kwh	Average variable Cost Rs/Kwh	FC (Rs Crores)	VC (Rs Crores)	Total Power Purchase Cost (Rs. Crores)
I	**NTPC**						
1	Singrauli	118.55	0.79	0.74	9.37	8.77	18.14
2	Rihand I	115.26	1.28	0.73	14.75	8.41	23.17
3	Rihand II	110.91	1.51	0.81	16.75	8.98	25.73
4	Unchahar I	17.16	1.73	1.07	2.97	1.84	4.80
5	Unchahar II	35.46	1.89	1.07	6.70	3.79	10.50
6	Unchahar III	15.13	2.04	1.29	3.09	1.95	5.04
7	Anta	36.01	2.27	0.86	8.17	3.10	11.27
8	Auriya	39.61	2.13	0.86	8.44	3.41	11.84
9	Dadri	40.58	2.13	0.87	8.64	3.53	12.17
10	Kahalgaon II	14.68	2.01	1.51	2.95	2.22	5.17

II	**NHPC**						0.00
11	Salal	9.43	0.38	0.32	0.36	0.30	0.66
12	Tanak pur	5.74	0.86	0.64	0.49	0.37	0.86
13	Chamera I	95.87	2.23	0.47	21.38	4.51	25.88
14	Chamera II	27.58	1.45	1.37	4.00	3.78	7.78
15	Uri	18.89	0.81	0.73	1.53	1.38	2.91
16	Dhauliganga	20.35	1.16	1.28	2.36	2.60	4.97
17	Dulhasti	32.6	2.43	2	7.92	6.52	14.44
18	Sewa II	5.39	1.82	1.25	0.98	0.67	1.65
III	**NPCIL**						0.00
19	NAPS	22.44	0.47	1.3	1.05	2.92	3.97
20	RAPP (unit 5 & 6)	29.52	0.71	2.29	2.10	6.76	8.86
IV	**OTHER SOURCES**						0.00
21	Tehri	34.06	2.36	1.94	8.04	6.61	14.65
22	SJVNL	82.59	1.01	2.56	8.34	21.14	29.48
23	**Subtotal**	**927.81**			**140.38**	**103.56**	**243.94**
24	Bhakra/BBMB	548.66	0	2.65	0.00	145.39	145.39
	PTC Traders	206.14	0	4.50	0.00	92.76	92.76
25	**SUB-TOTAL**	**1682.61**			**140.38**	**341.72**	**482.10**
26	PGCIL						22.35
27	RPO obligation						16
	UI						
	TOTAL	**1682.61**			**140.38**	**341.72**	**520.45**

The Commission approves the power purchase cost of Rs. 520.45 crore purchase of 1682.61 MU (gross) for the FY 2011-12 as against Rs. 717.80 crores demanded by ED Chandigarh. No energy is considered under RPO and cost of REC has been provided. If they are able to get renewable energy, it will be considered in truing up. Impact of new tariff regulations/orders, if any, shall be considered at the time of true up.

The Commission while approving the Power purchase cost of Rs. 520.45 crores for procurement of 1682.61 MU for FY 2011-12 **directs the ED Chandigarh to follow strictly the merit order principle in the power purchase.**

5.13 Gross Fixed Assets

ED Chandigarh has projected the gross fixed assets at Rs. 338.17 crore as on 31/03/2010. The gross fixed assets from 2008-09 to 2010-11 given in the ARR petition are detailed in Table-5.18 below:

Table-5.18: Gross Fixed Assets and Additions during 2008-09 to 2011-12

(Rs. crore)

Particulars	**FY 2008-09**	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**
Opening GFA	295.83	329.23	338.17	358.19
Additions during the year	33.40	8.94	20.02	27.50
closing GFA	329.23	338.17	358.19	385.69
Accumulate Depreciation	59.87	73.69	88.12	103.53
Net GFA	269.37	264.48	270.08	282.17

Source: Table 12 of additional information for ARR March petition

Note: Retirement and disposal of assets have been assumed to be Nil.

ED Chandigarh has submitted that in the absence of Fixed Asset Register (FAR), the asset wise details are not available and the details are being assimilated and will be made available with the future filings.

It is further submitted that no capital works in progress is assumed at the beginning of the year on the presumption that what ever works-in-progress are there during the year will get converted into fixed assets leaving no amount of works-in-progress at the end of the year.

As such the petitioner has contemplated that the works during the year have been completed by end of the year and taken into asset account leaving no balance under capital works in progress (CWIP).

Commission's Analysis

Accountant General in his audit report on the proforma accounts for the year 2008-09 has commented on non maintenance of register of works, register of fixed assets, completion reports and non conducting of physical verification of assets as on 31.3.2009 and in the absence of above records accuracy and authenticity of capital assets in use could not be verified.

In view of the above the GFA projected by ED Chandigarh cannot be considered for the purpose of arriving at return on equity, depreciation etc.

5.14 Capital Investment

ED Chandigarh has proposed capital investment of Rs. 20.02 crores during the year 2010-11. In the tariff petition submitted by ED Chandigarh, the projected capital investment for the year 2011-12 was Rs. 27.50 crores, which was revised to Rs.

24.25 crores by ED Chandigarh. The details of the capital investment plan are given below:

Table –5.19: Capital expenditure projected by ED for FY 2011-12

(Rs. Lakhs)

S.No	Name of the Work	Estimated Cost	Expenditure during 2010-11	Expenditure up 2010-11	Expenditure Proposed during 2011-12	Present Status
A	**Completed Works**					
1	Providing 2nd Circuit of 220 KV rating supply with existing with double circuit tower from Nalagarh (HP) to 220 KV Sub-station Kishangarh(UT)	622.27		593.59		Work completed Reconciliation is to be done
2	Providing 2x220 MVA, 6/11KV Grid Sub station in sector 56 Chandigarh	1398		1368.84		Work completed Reconciliation is to be done
	Sub-Total	**2020.27**		**1962.43**		
B	**On going Works**					
1	Providing Automatic capacitor banks at various 66/11 kV GSS	979.64	200.7	547.33	335	Work in Progress
2	Upgradation of Transformer capacity at 66/11 kV SS at IT Park by replacing existing 2x12.5 MVA 66/11 kV Transformers with 2x20 MVA 66/11 kV transformers and shifting & reinstallation of 2x12.5 MVA Transformer at exisitng 66 kV GSS, Civil secretariat Sec 1 & 12 Chandigarh	712.09	180.28	556.82	100	Work in Progress
3	Providing 66/11 kV-20 MVA addl. PTC at 66 kV GSS IT Park Chandigarh	411.9	100.12	261.78	100	Work in Progress
4	Providing 1x20 MVA, 33/11kV tranformer with allied equipment at existing 33 kV SS Sector 17	212.57	184.64	184.64		Work in Progress
5	Upgradation of existing 33/11 kV GSS to 1x30 MVA 66/11 kV GSS Near Gurudwara, sector 34, Chandigarh	722.12	170.55	558.32	100	Work in Progress
	Sub-Total	**3038.32**	**836.29**	**2108.89**	**635**	
C	**New Works during 2010-11**					
1	Providing 2x20 MVA, 66/11 kV GSS in the institutional area of Village Sarangpur in UT Chandigarh	989.01	185.66	148	350	Work in Progress

2	Providing addl. 1x10/12.5 MVA 66/33/11 kV Transformer after dismantlement from 33 kV SS sector 34 to exisitng 33 kV SS in Sec 37		90			Estimate is under Progress
3	Providing 1x30 MVA, 66/11 kV addl. Transformer at existing 66/11 kV GSS, Sector 52 Chandigarh	640.29	155	209.53	250	Tendering completed Work allotted to NTPC
4	Providing 2x20 MVA, 66/11 kV GSS near Raipur Kalan	971.94	120	545.97	345	Work in Progress Expected to be completed by 2/2012
5	11 kV & below works	550	615	487.85		
	Sub-Total	**3151.24**	**1165.66**	**1391.35**	**945**	
D	**New Works during 2011-12**					
1	Providing 3rd 1x100 MVA PTR at 220 kV GSS Kishangarh	967.31			145	Work allotted to PGCIL
2	Providing Transmission line from 66 kV SS, industrial area phase 1 to proposed 66 kV SS Raipur Kalan	350			50	Estimate under Process
3	Construction of double circuit 66 kv over head Transmission line on Tubular Monopoles from T-off point to proposed 66 kV SS at Sarangpur village	350			50	Estimate Awaited
4	Convertion of existing 66 kV S/C T. line and under ground cable from 220 kV SS Kishangarh to D/C line at sector 12	650			50	Estimate Awaited
5	Providing new 66/11 kV, 16/20 MVA PT on existing bay at GSS at sector 47	218.38			50	Work allotted to PGCIL
6	11 kV & below works	550			500	
	Sub-Total	**3085.69**		**0**	**845**	
	Total(A+B+C+D)	**11295.52**	**2001.95**	**5462.67**	**2425**	

SOURCE:TABLE 10 OF ADDITIONAL INFORMATION MARCH PETITION AND DATA FURNISHED ON (6-5-2011)

Summing up the annual capital expenditure plan for FY 2010-11 and FY 2011-12 are given in Table-5.20 below:

Table-5.20: Annual Capex Plan for FY 2010-11 & FY 2011-12

(Rs. lakhs)

S.N	Description	2010-11	2011-12 (Proposed)
1	On going works	927.31	1580
2	New works (above 11kV)	459.64	345
3	11kV & below	615.00	500
4	**Total**	**2001.95**	**2425**

Source: Table 9 of additional information and data furnished on (6-5-2011)

Commission's Analysis and Decisions

The entire capital expenditure has been funded by the Government of India through budgetary support without any external borrowings. Out of proforma accounts for FY 2007-08, 2008-09 and FY 2009-10 submitted by the Department, AG has audited accounts for the years 2007-08 and 2008-09. AG has commented in the audit report on proforma accounts for the year 2008-09 that the register of works, register of fixed assets, completion reports and physical verification of assets as on 31.3.2009 are not maintained and in the absence of above records accuracy and authenticity of capital assets in use could not be verified.

Regulation 22 (2) of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 reads as follows:

"Investments made prior to and upto 31st March immediately preceding the date of the notification of these regulations or date of receipt of petition of tariff determination whichever is earlier shall be considered on the basis of audited accounts or approvals already granted by the Commission".

In the absence of audited Asset Registers, the depreciation registers and the audited annual accounts the gross block assets, projected by the ED Chandigarh in the ARR and Tariff Petition and subsequent submissions with reference to the data gaps pointed out, cannot be considered for the purpose of arriving at the capital base and allowing depreciation and return on capital base.

As mentioned earlier ED Chandigarh has also stated that capital woks in progress (CWIP) during the year will get converted into fixed assets leaving no balance under CWIP at the end of the year. The summary of CWIP as furnished by ED Chandigarh is detailed in Table 5.21 below:

Table 5.21: Summary of CWIP

(Rs. crore)

Particulars	2008-09	2009-10	2010-11	2011-12
Opening CWIP	-	-	-	-
Capital investment during the year	33.40	8.94	20.02	24.25
Transferred to GFA	33.40	8.94	20.02	24.25
Closing CWIP	-	-	-	-

Source: Table 11 of additional information & data furnished on (6.5.2011)

As seen from the above, capital investment plan submitted by ED Chandigarh for the years 2010-11 and 2011-12, all the 5 Nos. ongoing works, as detailed Table 5.15, started during 2008-09 are still in progress and no work is completed. New works contemplated during 2010-11 and 2011-12 are either in progress or yet to be awarded. Thus no work is completed during the year 2010-11 and it is proposed to complete one work B(4) amounting to Rs. 8.91 crore by Feb 2012. But as seen from the Table 5.17 above CWIP during the year has been capitalized in the same year irrespective of the completion of the work. As such capitalization of expenditure without completion of the work is not in order as per the JERC Regulations No.10/2009 and clause No.22 (1). Similarly in respect of new works taken up during the years 2010-11, 2011-12 and also the works carried out during the year are capitalized in the same year without completion of the work and putting the asset into service is also not in order.

The capital investment is mostly for augmentation of transmission & distribution system in Chandigarh and for improving the voltage profile, reliability and reduce the T&D losses.

With the above observation, however, the Commission takes into consideration the capital expenditure of Rs. 24.25 crore for the year 2011-12.

5.15 Operation and Maintenance (O&M) Expenses

The Operation and maintenance (O&M) expenses comprise of three components namely:

(a) Employee cost

(b) Repairs & Maintenance expenses and

(c) Administrative and General expenses

5.15.1 Employee cost

ED Chandigarh has projected employee cost of Rs. 57.92 crore for FY 2011-12. The employee cost includes the cost incurred on present employees as well as the retired employees. The cost of present employees includes salary dearness pay and allowance and other allowances such as bonus, HRA, LTC, medical reimbursement etc.

The cost of pensioners includes, pension, encashment of leave salary, terminal benefits.

The petitioner has stated that they have not considered the leave salary contribution, pension and terminal benefits of the employees because at present the petitioner is not footing the bill for the same and reserves the right to approach the Commission at the appropriate stage for the above. The petitioner further stated that they are planning to recruit 273 new employees during the year 2010-11. The employee cost projected by the petitioner is furnished in Table-5.22 below:

Table 5.22: Employee cost for FY 2009-10 to FY 2011-12

(Rs. crore)

		FY 2009-10			FY 2010-11			FY 2011-12
Sr.No	**Particulars**	**Apr-Dec**	**Jan-Mar**	**Total**	**Apr-Dec**	**Jan-Mar**	**Total**	
1	Salaries & Allowances							
2	Basic pay	10.59	9.96	20.55	25.42	9.96	35.38	37.60
3	Dearness pay	3.42	0.47	3.89	1.84	0.47	2.31	0.00
4	Dearness allowances	9.75	0.95	10.70	6.61	0.95	7.56	12.40
5	House rent allowances	1.35	0.76	2.11	2.28	0.76	3.04	3.23
6	Fixed medical allowances	0.45	0.17	0.62	0.64	0.17	0.81	0.86
7	Medical reimbursement charges	0.10	0.08	0.18	0.24	0.08	0.32	0.33
8	Over time payment	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Other allowances	0.97	0.25	1.22	0.50	0.25	0.75	0.80
10	Generation incentive	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Bonus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Total	26.63	12.64	39.27	37.53	12.64	50.17	55.23
13	Terminal Benefits	0.00	0.00	0	0.00	0.00	0.00	
14	Leave encashment	0.55	0.18	0.73	1.22	0.18	1.41	1.55
15	Gratuity	0.51	0.12	0.63	0.46	0.12	0.58	0.64
16	Communication of pension	0.55	0.00	0.55	0.40	0.00	0.40	0.44
17	Workmen compensation	0.00	0.00	0	0.04	0.00	0.04	0.04
18	Ex-gratia	0.00	0.00	0	0.03	0.00	0.03	0.03
19	Total	1.61	0.30	1.91	2.15	0.30	2.46	2.70
20	Pension Payments				0.00			
21	Basic pension	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	Dearness allowances	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	Any other expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	Total (12+19+24)	28.24	12.94	41.18	39.68	12.94	52.63	57.92
26	Amount capilized	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	Net amount	28.24	12.94	41.18	39.68	12.94	52.63	57.92
28	Add prior period expenses (Arrears of VI Pay Commission)	0.00	5.63	5.63	3.47	0.87	4.34	0.00
	Grand Total	28.24	18.57	46.81	43.15	13.81	56.97	57.92

Source: Table 14 of additional information (March Petition)

Employee cadre strength furnished by ED Chandigarh in the petition is given in Table-5.23 below:

Table 5.23: Employee cadre strength of employees projected by ED-Chandigarh

Sl.No	Particulars	FY 2007-08 (Actual)	FY 2008-09 (Actual)	FY 2009-10 (Projected)	FY 2010-11 (Projected)	FY 2011-12 (Projected)
1	No of employees as on 1st April	1273	1214	1158	1168	1399
2	No of employees on deputation as on 1st April	28	18	18	18	18
3	Total employees(1+2)	1301	1232	1176	1179	1417
4	No of employees retired/retiring during the year	62	62	48	35	60
5	No of employees recruited	6	6	51	273	100
6	No of employees at the end of year	1245	1176	1179	1417	1457
7	Average no of employees for the year	1273	1204	1178	1298	1437

Source: Table 27 of ARR(January petition)

Subsequently employee cadre strength during the years 2010-11 & 2011-12 has been revised as detailed in the Table-5.24 below in the additional information furnished by them.

Table 5.24: Employee cadre strength Projected by ED Chandigarh (2010-11 & 2011-12)

SI No.	Particulars	FY 2007-08 (Actual)	FY 2008-09 (Actual)	FY 2009-10 (Proj)	FY 2010-11 (Proj.)		FY 2011-12 (Proj.)
					upto Dec 2010	upto Mar 2011	
1	No. of employees opening balance	1273	1214	1158	1161	1168	1228
2	No. of employees on deputation	28	18	18	18	18	18
3	Total employees	1301	1232	1176	1179	1186	1246
4	No. of employees retired	62	62	48	50	12	65
5	No. of employees recruited	6	6	51	57	72	150
6	No. of employees at the end of year	1245	1176	1179	1186	1246	1331
7	Average no of employees for the year	1273	1204	1178	1183	1216	1289

Source: Table 13 of additional information

Commission's Analysis

The petitioner has stated that they plan to recruit 129 (57+72) employees during the year 2010-11 and 150 during 2011-12 against 62 (50+12) employees retiring during the year 2010-11 and 65 during 2011-12. On 1-6-2011 ED Chandigarh revised the recruitment data for FY 2010-11 and 2011-12 as 58 and 161 respectively. Considering the above changes, the year wise employee cadre strength is worked out as detailed in Table-5.25 below:

Table 5.25: Year wise total number of employees on roll

Sl.no	Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
1	No. of employees on 1st April	1273	1217	1161	1164	1160
2	No. of employees on deputation	28	18	18	18	18
3	Total employees	1301	1235	1179	1182	1178
4	No. of employees retired	62	62	48	62 (50+12)	65
5	No. of employees recruited	6	6	51	58	161
6	No. of employees at the end of year	1245	1179	1182	1178	1274

As seen from the above Table, there is 8% increase in employee cadre strength during the year 2011-12 over the year 2010-11.It is also to be noted that from the above tables 5.23, 5.24 and 5.25 that the number of employees to be recruited for FY 2010-11 has been decreasing consistently. The ED Chandigarh did not achieve the recruitments targets as furnished by them. Thus, the Commission is of the view that there is no certainty in recruitments that are required to be done for FY 2011-12 as already three months have passed.

As seen from the table 5.22 above, the 6th Pay Commission recommendations are implemented during 2009-10 while the arrears on account were paid in two installments Rs. 5.63 crore during FY 2009-10 and Rs. 4.34 crore during FY 2010-11.

Now considering FY 2009-10 as base year a projection of 8% P.A. is allowed for FY 2011-12 to meet the increments and increase in DA as detailed below:

(Rs. crore)

Year	Details	Amount
2009-10	Base year expenditure excluding arrears	41.19
2010-11	With 8% projection	44.49
2011-12	With 8% projection over FY 2010-11	48.04

The Commission accordingly approves employee costs at Rs. 48.04 crore for the year 2011-12.

5.15.2 Repairs And Maintenance Expenses

ED Chandigarh projected Rs. 7.58 crore towards repairs and maintenance expenses for the year 2011-12 as detailed in the Table-5.26 below:

Table 5.26 Basis for R&M Expenses for FY 2011-12

(Rs. Crore)

Sr.No	Particulars	FY 2008-09	FY2009-10	FY 2010-11	FY 2011-12
		(Actuals)	(Projected)	(Projected)	(Projected)
1	Plant and Machinery	3.05	3.08	3.58	3.65
2	Building	0.04	0.04	0.04	0.04
3	Civil works				0
4	Hydraulic works	0.24	0.27	0.35	0.36
5	Lines Cables and network	2.69	2.21	2.7	2.75
6	Vehicles	0.57	0.63	0.76	0.77
7	Furniture and Fixtures		0.01	0.01	0.01
8	Office Equipments		0.00	0.00	0.00
9	Operating Expenses	0.00	0.00	0.00	0.00
10	Total R&M cost	6.59	6.24	7.44	7.58
11	Average GFA	312.53	333.7	348.18	371.94
12	% out of GFA	2.11%	1.87%	2.14%	2.04%

Source: Table 16 of additional information(March Petition)

The ED has projected the R&M costs at Rs. 7.58 crore for FY 2011-12. This gives an annual increase of about 2% over actuals for FY 2008-09 and also about 2% of Gross Fixed Assets. This is considered reasonable.

The Commission approves R&M expenses of Rs. 7.58 crore for the year 2011-12 as projected by ED Chandigarh

5.15.3 Administrative & General Expenses

ED Chandigarh has projected Rs. 3.07 crore towards administrative and general expenses for the year 2011-12 which comprises of payment of rent, rates and taxes, staff conveyance charges, stationery and misc expenses, consultation fee etc. The details are furnished in Table-5.27 below:

Table-5.27: Summary of A&G Expenses for FY 2011-12

(Rs. Crore)

Sr.No	Sub-head	FY 2009-10		FY 2010-11				FY 2011-12
		Apr-Dec	Jan-Mar	Apr-Dec	Jan-Mar	Apr-Dec	Jan-Mar	
1	Rent, rate & taxes							
2	Insurances							
3	Telephone, postage &telegrams	0.20	0.08	0.28	0.13	0.09	0.22	0.24
4	Consultancy fees	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Technical fees	1.55	0.00	1.55	1.55	0.00	1.55	1.71
6	Other professional charges	0.00	0.00	0.00	0.07	0.00	0.07	0.07
7	Conveyance& travel expenses	0.08	0.04	0.12	0.08	0.04	0.12	0.13
8	Electricity & water charges	0.09	0.06	0.16	0.03	0.07	0.10	0.11
9	Others	0.26	0.14	0.39	0.43	0.15	0.58	0.63
10	Freight	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Other material related expenses	0.11	0.03	0.14	0.12	0.03	0.15	0.17
12	Total	2.29	0.35	2.64	2.41	0.38	2.79	3.06
13	Add/Deduct share of others (io be specified)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	Total expenses	2.29	0.35	2.64	2.41	0.38	2.79	3.06
15	Less capitalized	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Net expenses	2.28	0.35	2.64	2.41	0.38	2.79	3.06
17	Add prior period	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Total expenses charged to revenue	2.28	0.35	2.64	2.41	0.38	2.79	3.06

Source: Table 16 of additional information (March Petition)

Commission Analysis

The Commission considers that the A&G expenses projected are reasonable and approves the administrative and general expenses of Rs. 3.06 crore for the year 2011-12 as projected by ED Chandigarh.

5.16 Depreciation

ED Chandigarh has projected the depreciation of Rs. 15.41 crore for the year 2011-12. Asset wise opening GFA from 01/04/2008 and additions during 2008-09 and closing GFA for 2008-09 and depreciation for 2008-09, 2009-10, 2010-11 and 2011-12 are furnished in Table-5.28 below:

Table 5.28: Depreciation for the year 2008-09

(Rs. crore)

Description of asset	Rate of Dep (%)	Opening GFA as on 1.4.08	Addition during FY 09	Closing GFA as on 1.4.08	Av. Assets during FY 09	Normative Depreciation
Distribution Assets						
Land owned under full title						
Land & Rights		0.69		0.69	0.69	0.00
Building and civil engineer works of permanent character						
Offices and Showroom	3.02	6.83		6.83	6.83	0.21
Containing thermo electric generating Plant	7.84	0.09		0.09	0.09	0.01
Containing Hydro electric generating Plant	3.4					
Temporary erection such as wooden structures	33.4					
Others	3.02	14.22	1.23	15.45	14.84	0.45
Transformers, transformer (kiosk) sub station equipment and other fixed apparatus(including plant foundation)						
Transformers	7.81	45.25	1.84	47.09	46.17	3.61
Others	7.84	0.45		0.45	0.45	0.04
Switchgear including cable connection	7.84	3.18		3.18	3.18	0.25
Lighting arrestor		0.77		0.77	0.77	0.00
sole type	12.77	0.00		0.00	0.00	0.00
Overhead Lines including support						
Lines on fabricated steel operating at nominal voltage higher than 66 kV	5.27					
Lines on fabricated steel operating at nominal voltage higher than 13.2 kV but not exceeding 66 kV	7.84	2.46		2.46	2.46	0.19
Lines on steel or reinforced concrete steel	7.84	1.52		1.52	1.52	0.12
Lines on treated wood support	7.84	27.16	1.75	28.91	28.03	2.20
Batteries	33.4					
Underground cable including joint boxes and disconnected	5.27	6.00	0.53	6.53	6.27	0.33

boxes						
Cable Duct System	3.02	16.07	1.61	17.68	16.87	0.51
Meters	12.77	1.96		1.96	1.96	0.25
Self propelled vehicles	33.4	0.71		0.71	0.71	0.24
Office furniture and fitting	12.77	0.16		0.16	0.16	0.02
Office equipment	12.77					
Internal wiring including fitting and apparatus	12.77					
Street line fitting	12.77	0.88		0.88	0.88	0.11
Communication Equipment						
Radio and high Frequency carrier system	12.77	0.81		0.81	0.81	0.10
Telephones lines and telephones	12.77	0.08		0.08	0.08	0.01
Total		129.29	6.96	136.3	132.8	8.63
Average Rate of Deprecation on Dist Assets					6.50%	
Transmission Assets						
Building and Structure including engineering work conditioning transmission & equipment	1.8	3.30		3.30	3.3	0.06
Substation Transformer, Kiosks etc	3.6	40.81		40.81	40.81	1.47
Transformers & Lines	3.6	14.66		14.66	14.66	0.53
Underground cable including joint boxes and disconnected boxes	2.57	2.89		2.89	2.89	0.07
Cable Duct System	1.8	101.66	26.44	128.1	114.88	2.07
Switchgear including cable connection	3.6	3.23		3.23	3.23	0.12
Total		**166.55**	**26.44**	**192.99**	**179.84**	**4.31**
Average Rate of Deprecation on Tran. Assets						
Grand Total (Dist + Trans.)		**295.84**	**33.4**	**329.2**	**312.61**	**12.95**
Average Rate Depreciation Total Assets					**4.14%**	

Source: (Table 18 of additional information) March Petition

The depreciation claimed for the FY 2009-10 and FY 2011-12 are given below:

Table 5.29: Depreciation claimed for the years 2009-10 to 2011-12

(Rs. crore)

Depreciation	FY 2009-10	FY 2010-11	FY 2011-12
	Prov	Proj	Proj
Opening GFA	329.23	338.17	358.2
Closing GFA	338.17	358.19	385.7
Average GFA	333.7	348.18	371.9
Average Rate of Depreciation	4.14%	4.14%	4.14%
Depreciation Charges	13.83	14.43	15.41

Source: Table 19 of additional information

Commission's Analysis

ED Chandigarh has stated that in the absence of fixed asset registers (FAR) the asset wise details are not available and the details are being assimilated. Further as discussed in para 5.11, total work done during the year is being capitalized at the end of the year irrespective of the completion of the work and asset put to use. As such the opening GFA and the additions during the year are on assumption only. Further the CED has not furnished details of Government grants and consumer contribution collected. As per Regulation 26 of JERC for the states of Goa and UTs (Terms and conditions for determination of Tariff), Regulation 2009 depreciation shall be computed on historical cost of the assets including additions during the year. In the instant case CED is unable to arrive at the actual cost of the fixed assets. As such CED is directed to conduct physical inventory of assets and construct asset / depreciation registers and file the same along with next tariff petition.

EDC has projected the capital expenditure of Rs. 24.25 crore for the FY 2011-12. As discussed in para 5.12, it is considered to capitalize Rs 8.91 crore during the year.

Regulation 26 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The effective rate of depreciation for distribution assets is 5.28% vide Appendix-III (Depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009. the depreciation for the FY 2011-12 has been worked out at Rs. 0.15 crore as detailed in the Table 5.30 below:

Table 5.30: Depreciation approved for FY 2011-12 by the Commission

(Rs. crore)

Sr. No.	Particulars	FY 2011-12
1	Gross Fixed Assets as on 01/04/2011	-
2	Additions during the year	8.91
3	Gross Fixed Assets at the end of the year	8.91
4	Average assets	4.46
5	Rate of depreciation	5.28%
6	Depreciation for the year	0.24

The Commission, accordingly approves the depreciation charges at Rs. 0.24 crore on the average asset capitalization of Rs. 5.85 crore for FY 2011-12.

5.17 Interest charges

ED Chandigarh has stated that it is being a Government department, the entire capital employed till date has been funded through equity infusion by GOI through budgetary support without any external borrowings. However as per JERC Regulations, 2009 for the purpose of determining the ARR, the licensee has considered debt equity ratio of 70:30 for projecting normative repayment has been considered to be equal to the depreciation charge during the year and the interest at the SBI PLR rate is applied on the average normative debt in order to project the normative interest on long term loans. The normative loan and the interest thereon for FY 2011-12 is projected at Rs. 20.16 lakhs as detailed in Table 5.31 below:

Table 5.31: Interest charges

(Rs. crore)

Particulars	FY 2008-09 (Actuals)	FY 2009-10 (Estimated)	FY 2010-11 (Proj)	FY 2011- 12 (Proj)
Opening normative Loan	153.17	170.6	163.03	162.62
Add: Normative Loan during the year	22.38	6.25	14.01	19.25
Less: Normative Repayment	5.95	13.83	14.43	15.41
Closing Normative Loan	170.6	163.03	162.62	166.46
Average Normative Loan	161.88	166.81	162.82	164.54
Rate of Interest	12.25%	12.25%	12.25%	12.25%
Interest on Normative Loan	19.83	20.43	19.95	20.16

Source: Table 20 of additional information March Petition

Commission's Analysis

ED Chandigarh has claimed interest on normative loan considering the repayment to be equal to depreciation charge by considering debt-equity ratio of 70:30 of gross fixed assets. But the asset value indicated is on assumption basis and not the value of assets capitalized every year. As such the GFA indicated are not considered as discussed in para 5.11. As such the normative loan concept is not accepted in this case. ED Chandigarh has not borrowed any loans in the past upto 31/03/2011 and has not proposed to borrow any loan to meet the capital expenditure for FY 2011-12.

The interest charges projected by the EDC for FY 2011-12 are on the basis of notional loan without any external borrowings. The Commission therefore does not consider any interest charges projected by the ED Chandigarh for FY 2011-12.

5.18 Interest on working capital

The ED Chandigarh has computed interest on working capital at Rs. 8.03 crore for FY 2011-12 on normative basis as per Regulation 29 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 for Goa and UTs. Since ED CHANDIGARH is a deemed distribution licensee working capital shall be the sum of

(a) Power purchase cost
(b) Employee cost
(c) Administrative & General expenses
(d) Repair & Maintenance expenses

The rate of interest on working capital has been considered at SBI PLR as on 1st April of the respective years which is 12.25% as on 01/04/2009. The details are furnished in Table-5.32 below:

Table 5.32: Interest on working capital

(Rs. crore)

Particulars	FY 2008-09 (Actuals)		FY 2009-10 (Estimated)		FY 2010-11 (Proj)		FY 2011-12 (Proj)	
	Total	WC	Total	WC	Total	WC	Total	WC
Power Purchase Cost	377	31.38	431	35.88	666.1	55.5	718	59.82
Employees Cost	46.8	3.9	46.8	3.9	56.96	4.75	57.9	4.83
Administration & General Expenses	1.65	0.14	2.63	0.22	2.79	0.23	3.07	0.26
Repair & Maintenance Expenses	6.59	0.55	6.25	0.52	7.44	0.62	7.58	0.63

Total Working Capital		35.97		40.52		61.1		65.53
SBI PLR		12.25%		12.25%		12.25%		12.25%
Interest on Working Capital		4.41		4.96		7.49		8.03

(Source: Table 21 of additional information)March Petition

Commission's Analysis

As per JERC Regulations interest on working capital shall be at SBI (PLR as on 1st April of the financial year) as verified the SBI PLR as on 1st April 2011 is 11.75 %. Accordingly the interest on working capital is revised as detailed in Table 5.33 below:

Table 5.33: Approved Interest on working capital for FY 2011-12

(Rs. crore)

Particulars	2011-12	
	Total	**Working capital**
Power purchase cost	520.45	43.37
Employee cost	48.03	4.00
A&G expenses	3.06	0.26
R&M expenses	7.58	0.63
Total working capital		48.26
SBI PLR		11.75%
Interest on working capital		5.67

The Commission approves Rs. 5.67 crore towards interest on working capital for FY 2011-12.

5.19 Return on Equity

ED Chandigarh has projected return on equity at Rs. 18.51 crore for FY 2011-12, on normative basis. The details are furnished in Table 5.34 below:

Table 5.34: Return on Equity

(Rs. Crore)

Particulars	FY 2008-09 (Actuals)	FY 2009-10 (Estimated)	FY 2010-11 (Proj)	FY 2011-12 (Proj)
Total Equity	329.23	338.17	358.19	385
Normative Equity	98.77	101.45	107.46	115.71
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%
Return on Equity	15.8	16.23	17.19	18.51

Source: Table 22 of additional information

Total GFA is considered as funded by 30% normative equity.

Commission's Analysis

ED Chandigarh is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The ED Chandigarh is not restructured and corporatized. As of now, it is an integrated utility and it is entitled to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide proviso under Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

The basic requirement for consideration of either return on capital base or return on equity is the audited Annual Accounts and assets and depreciation registers. ED Chandigarh has not prepared the statement of accounts viz profit and loss account, balance sheet etc. the petitioner has not been maintaining the adequate information.

The Department has no separate audited accounts for the regulated business, there are no assets and depreciation registers. till such time the Department prepares and maintains the asset and depreciation registers and get them duly audited, it is not feasible for the Commission to consider return on equity or return on capital base in accordance with Regulations 23 and 24 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

5.20 Provision for bad debts

ED Chandigarh has projected Rs. 2.44 crore towards provision for bad and doubtful debts for FY 2011-12 as detailed in Table 5.35 below:

Table 5.35: Provisions for Bad & Doubtful debt

(Rs. crore)

Particulars	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
Total Receivable Doubtful Debts		431.95	470.71	487.11
Provision for Bad & Doubtful Debts (%)	0.71%	0.71%	0.50%	0.50%
Provision for Bad & Doubtful Debts		3.07	2.35	2.44

SOURCE: TABLE 23 OF ADDITIONAL INFORMATION MARCH PETITION

Commission's Analysis

ED Chandigarh have given an amount of Rs.2.44 crore as receivable bad and doubtful debt in format 18 attached to the Petition. No details of debts have been provided.

The Commission approves Rs. 0.02 crore being the provision for bad and doubtful debts for FY 2011-12.

5.21 Non-Tariff income

ED Chandigarh has projected Rs. 12.15 crore towards non-tariff income for FY 2011-12. Non-tariff income comprises of metering, late payment charges, interest on staff loans, reconnection fee, miscellaneous revenue etc. Actuals for FY 2009-10 and FY 2010-11 and projections for FY 2011-12 are furnished in Table 5.36 below:

Table 5.36: Non-tariff income

(Rs. crore)

Sr.No	Particulars	FY 2009-10		Total	FY 2010-11			FY 2011-12
		Apr-Dec	Jan-Mar	2009-10	Apr-Dec	Jan-Mar	**Total**	
1	Meter/Service rent	2.62	0.64	3.26	2.95	0.64	3.59	
2	Late Payment Surcharge	0.85	0.21	1.06	0.88	0.21	1.09	
3	Theft/Pillage of energy	0.48	0.09	0.50	1.32	0.09	1.40	
4	Wheeling charges under open access	0.00	0.00	0.00	0.00	0.00	0.00	
5	Interest on Staff loans & Advances	0.00	0.00	0.00	0.00	0.00	0.00	
6	Income from Trading	0.00	0.00	0.00	0.00	0.00	0.00	
7	Income Staff Welfare Actives	0.00	0.00	0.00	0.00	0.00	0.00	
8	Investment & bank balances	0.00	0.00	0.00	0.00	0.00	0.00	
9	Misc Receipt/income	2.86	0.65	3.50	3.36	0.65	4.01	
10	Total income	6.81	1.59	8.32	8.51	1.59	10.1	12.15
11	Add prior period income	0.00	0.00	0.00	0.00	0.00	0.00	
12	Total non tariff income	6.81	1.59	8.32	8.51	1.59	10.1	12.15

Source: Table 24 of Additional information (March Petition)

Commission's Analysis

As seen from the above provision of Rs. 1.59 crore for 01/2011 to 03/2011 is the same,as provided for the same period of earlier year, therefore based on actuals of 04/2010 to 12/2010 has only been considered for projecting the non-tariff income for FY 2010-11 which comes to Rs. 11.35 crore as against Rs. 10.10 crore projected by ED Chandigarh showing an increase of 36% over FY 2009-10 and with the same rate of increase the amount for FY 2011-12 shall be Rs. 15.47 crore.

The Commission approves Rs. 15.34 crore being non-tariff income for FY 2011-12.

5.22 Aggregate Revenue Requirement

Based on the above analysis and approvals the aggregate revenue requirement projected by ED Chandigarh and approved by the Commission is furnished in Table 5.37 below:

Table 5.37: Aggregate Revenue Requirement for FY 2011-12

(Rs. crore)

Sr.No.	Para	Particulars	Projected by ED CHANDIGARH	Approved by the Commission
1.	5.12	Cost of power purchase	717.80	520.45
2.	5.15.1	Employee costs	57.92	48.04
3.	5.15.2	R&M expenses	7.58	7.58
4.	5.15.3	A&G expenses	3.07	3.06
5.	5.16	Depreciation	15.41	0.24
6.	5.17	Interest charges	20.16	0.00
7.	5.18	Interest on working capital	8.03	5.67
8.	5.19	Return on equity	18.51	0.00
9.	5.20	Provision for bad debts	2.44	0.02
10.		Total revenue requirement	850.93	585.06
11.	5.21	Non tariff income	(-)12.15	(-)15.47
12.		Net revenue requirement	838.77	569.59

5.23 Expected revenue from the existing tariff

The ED Chandigarh has furnished the revenue from the existing tariff at Rs.487.10 cr for the year FY 2011-12 excluding the sales under UI. The details are given in table 5.38 below:

Table 5.38: Projected Revenue from sale of Projected Power Units (Energy Sale) at existing Tariff by ED Chandigarh for FY 2011-12

(Rs. Crore)

Category	Consumers	Connected Load	Est.Sales During FY 2011-12 (MU)	Energy Rate (RS/Kwh)	Fixed Charges (Rs/Kw/ Month)	Unit	Revenue From Energy Charge	Revenue From Fixed Charge	Total Revenue @ existing Tariff
Domestic	**176059**	**658227**	565			Rs/KW/ Month	157.6	3.95	161.55
0-150 units	59684	108147	50.12	1.65	5	Rs/KW/ Month	8.27	0.65	8.92
Above 150 units (for all units)	116375	550080	514.19	2.9	5	Rs/KW/ Month	149.33	3.3	152.63
Commercial	25603	303507	372.9	3.36	60	Rs/KW/ Month	125.31	21.85	147.16
Large Supply	124	68978	151.4	3.29	60	Rs/KW/ Month	49.72	4.97	54.69
Small power	1560	20386.6	22.0	3.36	5	Rs/KW/ Month	7.40	0.12	7.52
Medium Supply	1053	58207.4	117.2	3.36	60	Rs/KW/ Month	39.40	4.19	43.59
Agriculture	202	1028.1	1.1	1.65		Rs/KW/ Month	0.18	0	0.18
Public Lighting	602	4189.8	15.7	3.36	60	Rs/KW/ Month	5.27	0.3	5.57
Bulk Supply	**310**	**69455**	182.9			Rs/KW/ Month	20.73	5	25.73
Main Bulk Supply	306	68211	60.6	3.36	60	Rs/KW/ Month	20.36	4.91	25.27
Kothies	1	301	0.5	2.65		Rs/KW/ Month	0.12	.02	0.14
Colonies	1	294	0.5	1.6		Rs/KW/ Month	0.07	.02	0.09
Rehri Market	1	317	0.5	0.95		Rs/KW/ Month	0.04	.02	0.07
Tribute Colony	1	332	0.5	2.9		Rs/KW/ Month	0.13	.02	0.16
Others	288	8899	120.5	3.36		Rs/KW/ Month	40.49	.64	41.13
Total	**205802**	**1192878**	**1428.28**				**446.08**	**41.02**	**487.11**

Source: - Table 25 of add information (March Petition)

Category wise sales are approved by the Commission as per para 5.6 and revenue on projected sale on the basis of existing tariff is assessed as detailed in the table 5.39 below:

Table 5.39: Approved Revenue from Sale of Power at existing Tariff approved by the Commission for FY 2011-12

(Rs. crore)

Category	Consumers	Connected Load	Est.Sales During FY 2011-12	Energy Rate (RS/Kwh)	Fixed Charges (Rs/Kw/ Month)	Unit	Revenue From Energy Charge	Revenue From Fixed Charge	Total Revenue @ existing Tariff
Domestic	**176059**	**658227**	**545.28**			Rs/KW/ Month	**154.83**	**3.95**	158.78
0-150 units	59684	108147	26.41	1.65	5	Rs/KW/ Month	4.36	0.65	5.01
Above 150 units (for all units)	116375	550080	518.87	2.9	5	Rs/KW/ Month	150.47	3.30	153.77
Commercial	25603	303507	420.31	3.36	60	Rs/KW/ Month	141.22	21.85	163.08
Large Supply	124	68978	141.55	3.29	60	Rs/KW/ Month	46.57	4.97	51.54
Small power	1560	20386.6	23.24	3.36	5	Rs/KW/ Month	7.81	0.12	7.93
Medium Supply	1053	58207.4	91.65	3.36	60	Rs/KW/ Month	30.80	4.19	34.99
Agriculture	202	1028.1	1.64	1.65		Rs/KW/ Month	0.27	0.00	0.27
Public Lighting	602	4189.8	17.51	3.36	60	Rs/KW/ Month	5.88	0.30	6.18
Bulk Supply	**310**	**69455**	**80.30**	3.36	60	Rs/KW/ Month	**26.98**	**4.91**	31.89
Others	288	8899	27.43	3.36	60	Rs/KW/ Month	9.22	0.00	9.22
Total	**205802**	**1192878**	**1348.89**				**423.57**	**40.29**	**463.87**

The Commission accordingly approves the revenue from existing tariff at Rs. 463.87 crore for the year FY 2011-12 as against Rs. 487 crores projected by ED Chandigarh.

5.24 Revenue Gap & Surplus for the year 2011-12

On the basis of approved energy sale and revenue requirement for the year 2011-12, the gap/surplus is given as per table 5.40 below:

Table: 5.40 Net revenue requirement and Gap

Particulars	Projected by ED Chandigarh	Projected by ED Chandigarh(Revised)	Approved by Commission
Net Revenue requirement (Rs. cr)	748.35	838.77	569.59
Revenue from sale of power (Rs. cr)	484.35	487.11	463.87
Gap	264	351.66	105.72
Energy Sales(MU)	1419.2	1428.28	1348.89
Average cost (Rs./Kwh)	5.27	5.87	4.22

6. DIRECTIVES

Commission's Observation

While examining the information and data contained in the proposed ARR and Tariff Petition for the FY 2011-12, it has been observed that the compilation and computation of data have been done based mainly on assumptions. Most of the areas of the operational & financial performance of ED Chandigarh require substantial improvement in data documentation, cross linking of data.

Therefore, the Commission decides to issue the following directives to the ED Chandigarh in the larger interest of Stakeholders.

Directive 6.1: Annual Statement of Accounts

Electricity Department Chandigarh has not prepared the account for the Electricity Department Separately. As Electricity Business comes under the preview of Electricity Act, 2003, the accounts pertaining to Electricity Business are required to be prepared separately and got audited.

Directive 6.2: Preparation of Asset and Depreciation Registers

The ED Chandigarh has stated that the complete data of fixed assets is not available. Unless the function wise, asset wise data is up-dated, correct asset value and depreciation thereon cannot be ascertained. The Electricity department is directed to arrange for preparation of assets and depreciation registers etc.

Directive 6.3 :Management Information System (MIS)

The ED Chandigarh has not maintained proper data in respect of sales, revenue and revenue expenses as also the category wise / slab wise number of consumers, connected load / demand etc. for proper analysis of the past data based on actual and estimate of proper projections for consideration in the ARR and Tariff Petition.

The ED Chandigarh is directed to take steps to build credible & accurate and verifiable data base and management information system (MIS) to meet the requirements for filing ARR & Tariff Petition as per regulatory requirement of the Commission& CERC and also to suit the Multi Year Tariff principles.

The ED Chandigarh should get a study conducted on computerized data base, on electronic media and shall give a proposal as to how the department proposes to achieve this & submit an action plan with target dates.

Directive 6.4: Metering of consumer installations / replacement of Non-Functional or defective Meters

Under Section 55 (1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulation to be made in this behalf by the authority. Accordingly, metering is required to be done in line with CEA (installation and operation of meters) Regulations 2006 to all consumers.

ED Chandigarh is directed to submit an action plan regarding installation/replacement of meters by 30th September, 2011

Directive 6.5: Energy Audit

The ED Chandigarh is directed to get an Energy Audit conducted through an accredited agency to assess actual technical and commercial losses. Based on the studies, ED Chandigarh shall propose reduction of losses in subsequent years.

The investment required to reduce the losses shall be included in the investment plan for augmentation of T&D system to be submitted to the Commission. Effective technical and administrative measures shall be taken to reduce the commercial losses. The action plan for energy audit and loss reduction measures shall be furnished to the Commission by 30th September, 2011

Directive 6.6: Billing and Collection Efficiency

A study needs to be conducted to suggest ways and means to enhance billing and collection efficiency as the Commission feels that there is a good scope for improvement.

ED Chandigarh is directed to take action accordingly and report action taken by 30th September, 2011

Directives 6.7: Interest on Security Deposit

U/S 47(4) of Electricity Act 2003 ,the distribution licenses shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the commission.

The ED Chandigarh is directed to intimate the commission the amount of security deposit collected from the consumers as on 31.3.2011

Directive 6.8: Power Factor improvement incentives

Presently for power factor improvement, a penalty is being levied for causing poor power factor. As per Commission regulation on supply code, a licensee is to incentivize those consumers who help to improve the power factor.

ED , Chandigarh shall examine the issue and include the same in their ARR and Tariff Petition for 2012-13.

Directive 6.9: Collection of arrears

The ED Chandigarh is directed to analyse the outstanding dues, bad debts etc. on the basis of amount, age, category etc. and list of those consumers with outstanding of Rs. 1 lac lying for more than six months. The above analysis should form the part of ARR and Tariff Petition for 2012-13.

Directive 6.10: Demand Side Management and Energy Conservation

Demand Side Management and Energy Conservation are very important areas, which should be in focus in ED Chandigarh particularly in context of Peak load. ED Chandigarh is directed to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means. An action plan for the same shall be submitted by ED Chandigarh with the Commission by 30th September, 2011

Directive 6.11: Manpower study

EDC is directed to conduct a detailed study on manpower requirement by an accredited agency while taking into account the future load growth in Chandigarh. The employee cost provision shall be based on the results of above study in the Tariff Petition for 2012-13.

Directive 6.12: Meter rental

The ED Chandigarh is directed not to charge any meter rental from those consumers who opt to provide their own meter / metering equipments as per JERC (Supply Code) Regulations 2010.

7 Tariff Principles and Design

7.1 Background

7.1.1 The Commission in determining the revenue requirement of ED Chandigarh for the year 2011-12 and the retail tariff supply has been guided by the provisions of the Electricity Act, 2003, the National Tariff Policy (NTP), Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff.

7.1.2 The present Tariff Petition is the first filed by ED Chandigarh. Presently, it is not practicable to implement the MYT framework this year due to non-availability of data in the form it is required. The Commission after taking into account all factors, has decided to introduce MYT in due course, when the data is available.

7.1.3 The Tariff has been fixed in such a way that the cross subsidy is within plus / minus 20% of the average cost of supply.

7.1.4 Section 8.3 of National Tariff Policy lays down the following principles for tariff design:

"(1) In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per Month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

(2) For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify the roadmap, within six Months with a target that latest by the end of the year 2010-11 tariffs are within ± 20% of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example if the average cost of service is ₹3 per unit, at the end of year 2010-11 the tariff for the cross subsidized categories excluding those referred to in para-1 above should not be lower than ₹2.40 per unit and that for any of the cross subsidizing categories should not go beyond ₹3.60 per unit.

(3) While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. The tariff for agricultural use may be set at different levels for different parts of the State depending on the condition of the ground water table to prevent excessive depletion of ground water."

7.1.5 The provisions of the Electricity Act, 2003, National Tariff Policy and the JERC Tariff Regulations require that there should be a gradual movement towards reduction of cross subsidy. The Tariff aims at bringing down cross subsidy to $\pm$ 20% of the average cost of supply by the year 2010-11.

Regulation 6 of JERC (Terms and Conditions for Determination of Tariff Regulations specifies –

Cross subsidy as:

"(1) 'Cross subsidy for a consumer category in the first phase (as defined in sub regulation 2 below) means the difference between the average realization per unit from that category and the combined average cost of supply per unit expressed in percentage terms as a proportion of the combined average cost of supply. In the second phase(as defined in sub-regulation 2 below) means the difference between the average realization per unit from that category and the combined per unit cost of supply for that category expressed in percentage terms as a proportion of the combined cost of supply of that category.

(2) The commission shall determine the tariff to progressively reflect the cost of supply of electricity and also reduce cross subsidies within a reasonable period. To this purpose, in the first phase the commission shall determine tariff so that it progressively reflects combined average unit cost of supply in accordance with National Tariff Policy. In the second phase, the commission shall consider moving towards the category-wise cost of supply as a basis for determination of tariff."

Keeping view of the above, the Commission has design the tariff in such a way that cross subsidy between different categories of consumers remains within + / - 20% limit and that even for BPL category consumers tariff rates shall be 50% of the average cost of supply.

7.1.6 The average tariff for each category of consumers for FY 2010-11 the average cost of supply for FY-2011-12 the average tariff as a percentage of average cost of supply are given as under:

Table 7.1 Average Cost of supply

Sl. No	Consumer category	Average unit rate as per existing tariff (Rs/kWH)	Average cost of supply per unit (Rs/kWH)	Tariff as a percentage of average cost of supply (3/4) (%)
(1)	(2)	(3)	(4)	(5)
1	Domestic	2.91	4.22	69%
2	Non-residential	3.88	4.22	92%
3	Large supply	3.64	4.22	86%
4	Medium supply	3.82	4.22	91%
5	Small supply	3.41	4.22	81%
6	Agriculture	1.65	4.22	39%
7	Street light	3.53	4.22	84%
8	Bulk Supply	3.97	4.22	94%
9	Temporary	3.36	4.22	80%

It is seen that the average existing tariffs to all categories of consumers supply are lower than the average cost of supply. The tariffs for domestic and agriculture are much lower than the 20% range of average cost of supply. Keeping above in view and the fact that average cost of supply for the year 2011-12 is estimated as Rs. 4.22 kWh (unit), the minimum energy rate has to be kept as Rs. 3.38 per kWh (unit) and the maximum rates as Rs.5.06 per kWh (unit) keeping in view the limit of + / - 20%, variation as per guideline N.T.P.

The minimum rate of energy has been kept as Rs. 2.10 per kWh (unit) for lowest category of consumers (BPL) which is 50% lower than the cost of power supply. The maximum energy rate has been kept Rs. 5.10 per kWh (unit) accordingly.

No fixed charges of any category of the consumers has been increased at present and same shall be considered in future years after sufficient data on capital investment is made available by the ED Chandigarh. However, in case of domestic and agriculture category of consumers, the fixed charges have been merged in energy charge.

7.2 Tariff approved by the commission

7.2.1 The tariff rates category – wise existing and proposed by Electricity Department chandigarh are given in table 7.2 below.

Table 7.2 Category wise Tariff Existing and Proposed by ED Chandigarh
(Rs./KWH)

Sl.No	Consumers Category & Slabs	Existing Tariff		Proposed Tariff	
	Existing slabs	Fixed charges	Energy charges	Fixed charges	Energy charges
1	Domestic Supply (DS)				
	0-150 units	5	1.65		
	>150 units	5	2.90		
	Proposed slabs				
	0-100			10	1.80
	101-400			10	3.55
	> 400			10	3.80
2	Non Residential supply (NRS)	60	3.36	80	4.10
3	Large Industrial Power Supply	60	3.36	80	4.10
4	Medium Industrial Power Supply	60	3.36	80	4.10
5	Small Industrial Power Supply	5	3.36	30	4.10
6	Agriculture Pumping Supply (AP)		1.65		1.65
7	Street Light Supply (SL)	60	3.36	80	4.10
8	Bulk Supply (BS)				
a	B.S (Main Bulk Supply)	60	3.36	80	4.10
b	B.S Kotharies	60	2.65		
c	B.S JJ Colonies	NA	1.65		
d	B.S Rehri Market	NA	0.95		
9	Temporary Supply	Nil	3.36	100	4.10

Note:- Sub categories be given in 8 (a),(b) and (c) are proposed to be merged with respective categories.

7.2.2 The following is considered while arriving at category-wise tariff approved.

Net revenue requirement for the year 2011-12 is Rs. 569.59 Crs as against the revenue of Rs 463.87 Crs calculated from existing tariff.

7.2.3 Based on the approval of Aggregate Revenue Requirement (ARR), the approved tariff rates for supply of energy in respect of different categories of consumers in the Union Territory of Chandigarh are as per Table 7.3

Table 7.3

Category wise tariff approved by the commission

Sl.no	Category	Fixed charges Rs/KW/Month	Energy charges Rs/KWH
1	**Domestic**		
(a)	0 to 150 kwh (unit)	Nil	2.10
(b)	Above 150 kwh (unit)	Nil	3.80
2	Commercial		
(a)	0-20 kW	5	4.10
(b)	Above 20 kW	60	4.10
3	Large Supply	60	4.10
4	Small power	5	4.10
5	Medium Supply	60	4.10
6	Agriculture	Nil	2.10
7	Public Lighting	60	4.10
8	**Bulk Supply**	60	4.10
9	Others (temporary supply)	Nil	5.10

7.2.4 The terms and conditions and tariff for various categories of consumers are given as per tariff schedule annexed to this order.

Commission order

Having considered the Petition No 20/2011 of electricity department of UT Chandigarh for approval of Annual Revenue Requirement (ARR) and determination of retail tariffs for supply of energy, the commission approves the Annual Revenue Requirement (ARR) and the retail tariff for ED Chandigarh.

1. The Break up of the Annual Revenue Requirement approved for ED Chandigarh for the year 2011-12 is given below.

Sl. No	Details	Amount (In Crores)
1	Cost of Power Purchase	520.45
2	Employer Cost	48.04
3	R & M Expenses	7.58
4	A & G Expenses	3.06
5	Depreciation	0.24
6	Interest and fiancés charges	0.00
7	Interest on working capital	5.67
8	Provision for bad debts	0.02
9	Return on Equity	0.00
10	Total Revenue Requirement	585.06
11	Less Non Tariff Income	15.47
12	Net Requirement	**569.59**
13	Total Revenue from Existing Tariff	463.87
14	Gap	105.72

2. The approved retail tariff for supply of energy shall be in accordance with the tariff schedule appended as appendix to this order.

3. The order shall come in force from 1st April, 2011 and shall remain effective till 31st March, 2012.

sd/
(R K Sharma)
Member

sd/
(Dr. V K Garg)
Chairman

Place: Gurgaon
Date: 16.07.2011

TARIFF SCHEDULE

DOMESTIC CATEGORY (DS)

APPLICABILITY

This schedule shall apply to single private house or flat for light, fan, domestic pumping sets and household appliances in the following premises:

a) Single private house/flat.
b) Government recognized education institutions, viz schools, colleges, universities, ITI hostels, canteens, and residential quarters attached to the educational institutions.
c) Government and public sports institutions/Gymnasium halls etc. banks and PCO exclusively for the use of educational institutions.
d) Religious Institutions viz. Temples, Gurudwaras, Mosques, Churches, provided that the Sub Divisional officer concerned authenticates the genuineness of the place being exclusively used for worship by the general public.
e) Housing colonies and multi storied flats/buildings as defined in Electricity Supply Code Regulations notified by the JERC.

NOTES:

i) Where a portion of the dwelling is used regularly for the conduct of a business, the consumption in that portion shall be separately metered and billed under the appropriate Non Domestic Tariff. Private dwelling,

   a) where only 20% of the portion of the dwelling subject to a maximum of 15 square meter is used regularly for the installation of STD,PCO, Fax or Photostat machine only.

   b) Where 25% of the covered area subject to maximum of 50 square meter is being used by Professional/Consultant Viz. doctors, advocates and architects etc.

   the consumption in that proportion will be separately metered under separate connection and billed under the appropriate non domestic tariff. If separate connection is not provided, the entire supply will be classified under Non-Domestic Supply.

ii) Sub metering of supply to tenants or member of the same family residing in one premise shall be permitted.

iii) Hostels shall be considered as one unit and billed under domestic supply tariff without compounding.

iv) Private education institutions not recognized by the Chandigarh Administration shall be billed under Non Domestic Tariff.

v) STD/PCO, shops attached to Religious Institutions will be billed under Non Domestic Tariff.

vi) In case a room or a part of residential house is utilized by a teacher for imparting tuition work, self occupied handicapped persons operating from their residences, cooking classes taken by house ladies, beauty parlour run by house ladies, ladies doing tailoring work etc. shall be covered under domestic tariff.

CHARACTEROFSERVICE

AC,50 cycles, Single phase 230 volts or three phase 400 volts or 11 Kilo volts.

For loads upto 5 KW supply shall be given on single phase 230 volts and above 5 KW upto 60 KW supply shall be given on three phase 400 volts. For loads above 60 KW, supply shall be given on 11 KV and a separate transformer of adequate capacity shall be installed at consumers cost as per Electricity Supply Code Regulations notified by JERC. In case of consumers where the metering is being done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding 3% extra on account of transformation/ losses. This arrangement shall be continued for a maximum of one year within which metering shall be shifted to HT (11KV) side of the transformers .

TARIFF

Approved Charges

Consumption range	Fixed charge (Rate) Rs/kW/month	Energy charge (Rs/kWH)
0-150 kwh (unit)	Nil	2.10
Above 150 kwh (unit)	Nil	3.80

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of Electricity Department (consumption charges, meter and service rentals , sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers for disconnection , temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill not having been paid in full within the period specified in the bill. Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the Electricity Department.

2. COMMERCIAL / NON RESIDENTIAL SUPPLY (NRS)

APPLICABILITY

This schedule shall apply to all consumers, using electrical energy for light, fans appliances like pumping sets, central air conditioning plant, lift ,welding set, small lathe, electric drill, heater, battery charger, embroidery machine, printing press, ice candy, dry cleaning machines, power press, small motors in non residential premises such as business houses, cinemas, clubs, public offices, hospital, hotels/motels, departmental stores, shops, guest houses, restaurant, offices etc. NRS supply shall also be applicable to multi consumer complex including commercial complexes as defined in the Electricity Supply Code Regulations notified by the JERC.

No separate circuit/connection for power load including pumping set/central air conditioning plant, lifts etc. is permitted.

CHARACTER Of SERVICE

AC, 50 cycles, Single phase at 230 Volts or Three Phases at 400 Volts or 11 Kilo volts.

For loads up to 5 KW supply shall be given on single phase 230 volts and above 5 KW up to 30 KW supply shall be given on three phase 400 volts. For loads above 30KW, supply shall be given on 11 KV.In case of multi consumer complex including commercial complex as specified in Electricity Supply code Regulation 2010 notified by JERC and in other cases, load above 60 KW, the supply shall be 11 kV. In case of consumers where metering is done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding 3% extra on account of transformation losses.

TARIFF

Approved Charges

Consumption range	Fixed charge (Rate) Rs/kW/month	Energy charge (Rs/kWH)
All Units	0 to 20 kw - Rs. 5	4.10
	Above 20 kw – Rs. 60	4.10

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of Electricity Department (consumption charges, fixed charges , meter and service rentals , sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers for disconnection , temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill not having been paid in full within the period specified in the bill. Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the Electricity Department.

3.LARGE INDUSTRIAL POWER SUPPLY (LS)

APPLICABILITY

The schedule shall apply for consumers having industrial connected load above 100kW. Their contract demand shall not be less than 100 kVA.

No consumers shall increase his connected load without prior approval of the department. The consumer availing supply at high tension shall indicate rated capacity of all the step down transformers installed in his premises and shall not increase the capacity of such step down transformers without prior approval of the department.

CHARACTER OF SERVICE

AC, 50 Cycles, 3 phase 11 kV supply for loads above 100 kW.

Supply can be given at 33/66/220kV depending on quatum/type of load and contract demand and availability of bus voltage and transformer winding capacity at the feeding substation wherever possible at the discretion of supplier.

For arc furnace loads and other loads of equally violent fluctuating nature, voltage of supply will be 33kV and above depending upon availability of bus voltage and transformer winding capacity at the feeding substation wherever possible, at the discretion of supplier.

NOTE

i) The above tariff covers supply at 11 kV. Surcharge at 20% on the above tariff shall be leviable for all the existing consumers which are being given supply at 400 volts. A consumer getting supply at 33 kV and above will get a rebate of 3%.

ii) Surcharge at 17.5% on the above tariff shall be leviable for all the arc furnace consumers which are being given supply at 11 kV. This surcharge at 17.5% shall also be leviable on other industrial consumers having sanctioned load exceeding 5000 kW or sanctioned contract demand exceeding 5000 kVA and running at 11 kV.

iii) In case of steel rolling mills having supply at 400 volts, an additional surcharge of 5% shall be leviable.

iv) In case of HT consumers (11kV and above) where maximum demand and energy consumption is recorded on lower voltage side of consumer transformer instead of high voltage side, maximum demand and energy consumption for billing purpose should be computed by adding 3% extra on account of transformation/cables losses. However this agreement shall in no case continue for more than three months and meter shall be installed on the HT side of the transformer within the said period including such existing connection.

v) For new connections, all metering will be on HT side only.

TARIFF

Approved Charges

Consumer Category	**Consumption Slab**	**Fixed Charges Rs/kW/month**	**Energy Charges (Rs/kWh)**
Large Power Supply	All Units	Rs. 60 per kW per month	4.10

POWER FACTOR SURCHARGE

The monthly average power factor of the plant and apparatus installed by the consumer shall not be less than 90% lagging. The monthly average power factor shall mean the ration expressed as percentage of total kWH to total k VAh supplied during the month. The ratio shall be rounded upto two figures.

In case the monthly average power factor falls below 90%, consumer shall pay on the bill amount a surcharge of 1% for each 1% by which the monthly average power factor falls below 90%

If for any installation, the average power factor is less than 70%, the supply may be disconnected after due notice of 15 days, without prejudice to the right of the licensee to levy demand/minimum charges as applicable during the period of disconnection.

PLANT & APPARTUS

The following controls shall be installed:

a) A linked switch with fuse(s) or a circuit breaker for consumer having aggregate installed transformer/apparatus capacity up to 1000 KVA if supplied at voltage of 11 KV and 2500 kVA if supplied at voltage of 33 kV.
b) A circuit breaker along with linked switch for consumer having an aggregate installed transformer apparatus capacity above 1000 kVA if supplied at 11 kV and above 2500 kVA if supplied at 33 kV.
c) In either case, suitable automatic circuit breakers shall be installed on the low tension side of each transformer or on each LT feeder emanating from the transformer.
d) Extra High Tension consumer shall install a circuit breaker on HV side of the transformer.

POINT OF SUPPLY

The above tariff is based on the supply being given through a single delivery and metering point and at a single voltage. Supply at other points or at other voltage shall be separately billed and metered.

CONTRACT DEMAND

Contract demand is the load **k W, k V A** or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement. If the consumer in a month exceeds the contract demand, such excess shall be charged at an additional rate of Rs 250/kVA.

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of Electricity Department (consumption charges, fixed charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers for disconnection, temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill not having been paid in full within the period specified in the bill. Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the Electricity Department.

4. MEDIUM INDUSTRIAL POWER SUPPLY (MS)

APPLICABILITY

This tariff schedule shall apply to all industrial power supply consumers having connected load ranging from 21 kW to 100 kW.

CHARACTER OF SERVICE

AC,50 cycles ,3 phase, 400volts,or at 11 kV for load above 60 KW.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges Rs/kW/month	Energy Charges (Rs/kWh)
		Rate	**Rate (Rs/kWh)**
Medium Supply	All units	Rs. 60 per Kw per month	4.10

POWER FACTOR

If for any installation, the average power factor is less than 70%, the supply may be disconnected after due notice of 15 days. In case LT capacitors are not installed or installed but not in working condition, in such cases also the supply shall be disconnected after due notice of 15 days without prejudice to the right of the licensee to levy minimum charges as applicable during period of disconnection.

PLANT & APPARATUS

The following features shall be installed:

a) LT installation with welding transformers will be required to have suitable shunt capacitor(s) installed so as to ensure power factor of not less than 90%.
b) Every LT consumer, including irrigation pump set consumer, whose connected load includes induction motors of 3 HP and above and other low power factor consuming appliances shall arrange to install Low tension Shunt capacitors of appropriate capacity so as to ensure power factor of not less than 90% at his cost across the terminals of his motor(s)

POINTOFSUPPLY

The above tariff is based on the supply being given through a single delivery and metering point and at a single voltage. Supply at other points or at other voltage shall be separately billed and metered.

CONTRACT DEMAND

Any consumer who exceeds his contract demand or connected load or increase the capacity of the step down transformer(s) will be liable to compensate the department for all damages occasioned to its equipment or machinery by reason of the default. Without prejudice to this right, the department may also cause the service of the consumer to be disconnected without any notice.

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of the Electricity Department (consumption charges, fixed charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers, for disconnections, temporarily or permanent or even it not disconnected in the event of the bill not having paid in full within the period specified in the bill. Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the Electricity Department.

5. SMALL INDUSTRIAL POWER SUPPLY (SP)

APPLICABILITY

This schedule apply to small power industries with connected load not exceeding 20 KW (26 BHP) in Urban and rural areas.

CHARACTEROFSERVICE

AC, 50 cycles, single phase 230 volts, or 3 phase,400 volts.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges Rs/kW/month	Energy Charges (Rs/kWh)
Small Power	All Units	Rs. 5 per kw per month	4.10

POINT OF SUPPLY

The above tariff is based on the supply being given through a single delivery and metering point and at a single voltage. Supply at other points or at other voltage shall be separately billed and metered.

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of the Electricity Department (consumption charges, fixed charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers, for disconnections, temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill .Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the
Electricity Department.

6. AGRICULTURAL PUMPING SUPPLY (AR)

APPLICABILITY

This schedule shall apply to all consumers for use of electrical energy for irrigation pumping load upto 20 kW (26 BHP). Supply for loads above 26 BHP/20 KW shall be charged in accordance with relevant industrial tariff (Govt. Tubewells meant for water supply are covered under relevant Industrial Tariff)

CHARACTER OF SERVICE

AC, 50 Cycles, three phase, 400 volts, Single Phase at 230 volts.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges	Energy Charges (Rs/kWh)
Agricultural Supply	All Units	Nil	2.10

NOTE

a) Pumping sets shall be ISI marked. The responsibility for ensuring installation of ISI marked pumping sets as well as shunt capacitors shall be that of JE concerned, who shall verify the same at the time of verification of test reports before release of connection.
b) Supply for agriculture/Irrigation pump set, at one point, may also be given to a registered co-operative society or to a group of farmers recognized by the nigam.
c) An agriculture consumer, if he so desires, may shift the location within his premises of his connection, with the approval of the nigam, after payment of appropriate charges.

POINT OF SUPPLY

The above tariff is based on the supply being given through a single delivery and metering point and at a single voltage. Supply at other points or at other voltage shall be separately billed and metered.

POWER FACTOR IMPROVEMENT

All consumers are required to install shunt capacitors having suitable kVAR capacity. No connection shall be released without installation of shunt capacitors. In case shunt capacitors is/are found to be missing or inoperative or damaged, a 15 days notice shall be issued to the consumers for rectification of the defect and setting right the same. In case the defective capacitors is/are not replaced/rectified within 15 days of the issue of notice, the licensee will replace the capacitor at the cost of consumer and recover the cost as determined by the licensee.

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of the Electricity Department (consumption charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers, for disconnections, temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill .Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the
Electricity Department.

7. STREET LIGHT SUPPLY (SL)

APPLICABILITY

This tariff schedule shall apply for use of Street Lighting system, including signaling system and road and park lighting in municipality, panchayats, institutions(at the discretion of the supplier)etc.

CHARACTER OF SERVICE

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges Rs/kW/month	Energy Charges (Rs/kWh)
Street Light Supply	All Units	Rs. 60 per kw per month	4.10

NOTE

The fitting brackets or any special fitting for public lighting shall be in accordance with the relevant BIS specifications or its equivalent, and shall maintain required clearances as per prevailing rules and regulations. The local body/Municipal corporation will bear the full cost of arranging of power supply to public street lights including complete fitting and brackets. In case, any special fittings are to be provided , the local body shall arrange for it.

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of the Electricity Department (consumption charges, fixed charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers, for disconnections, temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill .Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the
Electricity Department

8. BULK SUPPLY (BS)

APPLICABILITY

This tariff schedule shall apply to general or mixed loads exceeding 10 kW to MES, Defense establishments, Railways, Central PWD, institutions, Hospitals, Departmental Colonies and other similar establishments where further distribution is to be done by the consumer.

Above schedule shall not be applicable, if 50 % or more of the total sanctioned load is motive/ manufacturing load.

CHARACTER OF SERVICE

AC, 50 cycles, three phase, 400 volts or 11 kV or higher voltage at the option of the department. Loads exceeding 60 kW/60 kVA contract demands shall be released on HT only.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges Rs/kW/month	Energy Charges (Rs/kWh)
Bulk Supply	All Units	Rs. 60 per kw per month	4.10

9. TEMPORARY SUPPLY

APPLICABILITY

Available to any person requiring power supply for a purpose temporary in nature for period of three months, which may be extended up to a maximum period of two years after an annual notice to the consumer regarding deemed extension up to two years.

CHARACTEROFSERVICE

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

TARIFF

Approved Charges

Consumer Category	Consumption Range	Fixed Charges Rs/kW/month	Energy Charges (Rs/kWh)
Temporary Supply	All Units	Nil	5.10

NOTE

a) The supply connection will be released within three days after payment of charges and compliance of other requirements by the consumer for loads up to 10 kW and within 15days for load exceeding 10 kW where extension of distribution mains is not required. Where extension of distribution mains is required, the supply shall be released within 60days in case of LT consumers, 90 days for HT consumers and 180 days for EHT consumers

LATE PAYMENT SURCHARGE

Surcharge would be levied on unpaid dues of the Electricity Department (consumption charges, fixed charges, meter and service rentals, sundry charges etc.) at the rate of 10% on the unpaid amount of the defaulting consumers, for disconnections, temporarily or permanent or even if not disconnected in the event of the bill not having been paid in full within the period specified in the bill .Further annual surcharge at the rate of 10% shall also be charged on the unpaid dues of the
Electricity Department.

SERVICE CHARACTERS OF SUPPLY FOR LOAD ABOVE 5000 KW

Supply to any category of consumers above 5000 KW shall be given at voltage level of 66 KV and above only.

10. GENERAL CONDITIONS FOR LT & HT SUPPLY

The following LT/HT Tariffs are subjected to the following conditions:

1) **Classification of Premises**
The licensee shall have the right to classify or reclassify the supply of energy to any premises under an appropriate category of tariff.

2) **Connected Load**
The connected load of the service connection shall not exceed the contracted load. Any consumer who exceeds his contract demand or connected load or increase the capacity of the step down transformer will be liable to compensation the licensee for all damages occasioned to his equipment or machinery by reason of this default.
(a) Additional charges for excluding contracted load/contracted maximum demand.
If in any month the consumer exceeds his contracted load/contracted demand the portion of the load/demand in excess of the contracted load/demand will be billed at twice the normal charges.

3) **Maximum Demand**
The maximum demand of supply of electricity during a month shall be twice the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 30 minutes in the month. However for the consumers having contracted demand above 4000 KVA the maximum demand shall be four times the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 15 minutes in the month.

4) **Monthly Minimum Charges**
Every consumer whether the consumers energy or not shall pay monthly minimum charges specified for each category in this part to cover the cost of a past of the fixed charges of the licensee. may also cause the service of the consumer to be disconnected without any notice.

5) **Additional Charges for Belated Payment of Bills**
a) The C.C. bills shall be paid by the consumers within the due date mentioned in the bill, within 15 days from the date of the bill.
b) If the payment is made after the due date the consumer is liable to pay additional charges for belated payment on the bill amount at the rate of 2% P.M.
c) If the C.C. bill amount is not paid within 15 days from the date of the bill, the power supply is liable to disconnection.
d) For reconnection of power supply after disconnection the consumer has to pay all dues and reconnection fees plus additional charges for belated payment calculated as per para (b) above.

6) **Surcharge for Low Power Factor/Non Installation of Required rated LT Shunt Capacitors.**
a) Consumer using LT installation with welding transformers and induction meters of 3 HP and above and other low power factor consuming appliances shall arrange to install low tension shunt capacitors of required rating and shall maintain these capacitors in good working condition .No service connection shall be released without installation of shunt capacitor(S) of required rating.
In case the shunt capacitor(S) are found to be missing or inoperative or damaged , 15 days notice shall be issued to the consumer for rectification of the defect and setting right the name. In case the defective capacitor(S) are not replaced/rectified

within 15 days of given notice, a surcharge of 20% on the bill amount shall be levied till defective capacitor(S) are replaced/rectified to the satisfaction of the licensee. If the capacitor(S) are found to be of inadequate rating then the capacitor surcharge shall be levied on prorate basis

b) Consumers in whose L.T connections the mater provided by the licensee have the power factor recording feature, shall install shunt capacitors of adequate rating to ensure power factor of 90% or above furling which low power factor surcharge at the rates noted below will be levied.

SL.No	Power Factor Range	Surcharge
1	90% and above	NIL
2	Below 90% and upto 85%	1% of C.C charges bill of that month for every 1% fall in power factor from 90%
3	Below 85% and upto 80%	1.5 % of C.C charges bill of that month for energy 1% fall in P.F from 85%
4	Below 80% and upto 75%	2% of C.C charges bill of the month for energy 1% fall in P.F from 80%
5	Below 75%	3% of C.C charges bill of that month for energy 1% fall in P.F from 75%

Should the power factor drop below 70% the licensee may disconnection supply after due notice of 15 days to any installation without prejudice to the right of the licensee to levy/demand minimum charges as applicable during the disconnection period.

11: SCHEDULE OF GENERAL AND MISCELLANEOUS CHARGES

1. SCHEDULE OF GENERAL CHARGES

Description	Rate (Rs.)
Meter Inspection & Testing charges	
(If the correctness of a meter belonging to the licensee is challenged by the consumer)	
i) Single phase LT	120/energy meter
ii) Poly phase HT without CT	450/energy meter
iii) LT meter with CTs/Demand or special type meters	1200/energy meter
iv) H.T and E.H.T metering equipment	2400/energy meter
NOTE:- If the challenged meters is found to be incorrect, the credit of these charges will be given to the consumer otherwise these will be forfeited.	
Changing the meter or its position in the same premises at the request of the consumers when no additional material is required.	
i)Single phase	225/energy meter
ii) 3 phase without CT's	450/energy meter
iii) LT meter with CT's	900/energy meter
iv) HT & EHT metering equipment	2400/energy meter
Re-sealing charges irrespective of the number of seals involved against each item below and where seals found to have been broken by the consumer.	
i) Meter cupboard	50
ii) Where cut-out is independently sealed	50
iii) Meter cover or Meter Terminal cover (Single phase)	150
iv) Meter cover or meter Terminal cover (3 phase)	375
v) Maximum demand Indicator or CT's chamber	900
vi) Potential fuses	900
NOTE:- If M&T and ME seals are found to be broken/tempered cost of meter shall be recoverable and the case shall be treated as theft case	
Meter Rentals	
i) Single phase CT meter	Rs.11/month
ii) Three phase LT meter	Rs.25/month
iii) Three phase LT meter with CT	
a) 150/2 Amp	Rs.57/month
b) 100/5 to 400/5 Amps	Rs.42/month
iv) LT and HT poly phase meter/metering	1.6 paisa per rupee of the cost

equipment of higher rating	of metering equipment
v) Solid State HT metering equipment	Rs.320/month
Reconnection Charges	
Reconnection/connection the premises of any consumer who was previously disconnected on account of breach by him of the conditions of the supply on of his agreement with the department of the on of such provision of the Act as may be relevant whether the premises to be reconnected,/connected are the same or not.	
i)Single phase	120
ii)Three phase LT	150
iii) Three phase HT	250
Reconnecting vacated premises on the request of the consumer, in case the service line is existing	
i) Single phase	120
ii) Three phase LT	150
iii) Three phase HT	250
Testing Consumer's installation	
i) For first test of the new installation on or off an extension to an existing installation if the installation is found to be defective.	NIL
ii) For Subsequent test of the new installation or of an existing installation if the installation is found to be defective	
a) Single phase LT	150 payable in advance for each subsequent visit for the purpose of testing the installation.
b) Three phase	200
c) MS/BS loads upto 100kW	300
d) LS/BS/RT(loads Above 100kW	500
Replacement of Meter Reading Card found to be missing on consumer's premises	
i) Large industrial Supply	45
ii) Medium industrial Supply	25
iii) Small industrial Supply Agricultural power supply	10
iv) Domestic/ NRS Supply it	5
Replacement of Passbook in case it is lost by AP consumer	60
Replacement of identification card missing on the premises of AP consumer	25
Replacement of broken glass	
i) Replacement of broken glass of meter cupboard (When the cause of the breakage is considered to be an act of default of the consumer)	30
ii) Replacement of broken Glass of single	250

phase meter if the consumer has broken or tamper and with meter.	
iii) Replacement of broken Glass of three phase meter if the consumer has broken or tamper and with meter.	450
Supply of duplicate copies of electricity bills	
i) Domestic Consumers	3
ii) Non Domestic consumers	10
iii) LT Industrial upto 20kW & AP Consumer	10
iv) H.T Industrial & Bulk supply consumer	20
Review of electricity bills	
If the accuracy of licensee's bill is challenged by the consumer and a review of the bills is demanded	
i) Single phase	10
ii) Three phase	
a) load upto 20kW	250
b) Load above 20kW upto 100kW	450
c)Load above 100 kW	900
NOTE:- If the bills is found to be incorrect credit of the fee will be given to the consumer otherwise it will be forfeited	
Meter Installation Charges	
(In case where consumer opts to supply his own meter)	
i)Single phase meter	100
ii) Three phase meter without CT'S	250
iii) Three phase mater with CT's & PT's	2% of the cost of mwtering equipment subject to a minimum of Rs 900
Testing and calibration including scaling of energy meter owned/ supplied by the consumer	
i) Single phase	60
ii) Poly phase whole current	450
iii) Poly phase meters with CT's	1200
iv) HT and LT Metering equipment	2500
Checking of the capacities at the request of the consumer	

Description	**Rate (Rs.)**
Consumer receiving supply at	
i) 230/400 v	150/ visit
ii) Above 400v and upto 11kv	300/ visit

2. SCHEDULE FOR SERVICE CONNECTION CHARGES AND SERVICE RENTALS

Service connection charges are provided in schedule of general and service connection charges are to be recovered from all prospective consumers and existing consumers seeking extension in load. Schedule of service connection charges as prevalent is given under:

A. SERVICE CONNECTION CHARGES FOR DOMESTIC SUPPLY

(a) Single phase fixed per kW charges		
(i) Up to 1kW	Domestic	Rs. 250
	NRS	Rs 250
(ii) Above 1 kW and upto 3 kW	Domestic	Rs 300
	NRS	Rs 300
(iii) Above 3 kW and 5 kW	Domestic	Rs 500
	NRS	Rs 750
(b) Three phase fixed per kW charges		
(i) Above 5 kW	Domestic	Rs. 75
	NRS	Rs 1000

Variable Charges:
No variable charges are leviable upto 75 meters. Beyond 75 meters for all loads variable charges at Rs 125 per meter length of service line shall recoverable for loads in excess of 5 kW.

a) Domestic and Non Residential consumers falling under the following categories have the option either to pay in lump sum the service connection charge as mentioned under the preceding clause or to pay monthly service rentals at 1.6 paisa per rupee of the estimated cost of the service line excluding the cost of 30.48 meters.

   i) Members of Schedule Castes.

   ii) The connection meant for religious and Charitable institutions run by recognized/registered associations or societies registered with Register of Societies.

b) All such prospective and existing consumer who will pay or have paid service connection charges in full shall be exempted from the payment of monthly service rentals.

c) The service rentals to the consumers existing prior to 1-11-2002, if applicable already shall continue.

B. SERVICE CONNECTION CHARGES FOR INDUSTRIAL AND BULK SUPPLY

I) For new Connections:

Load	Service Connection Charge
a) Upto 60kW	750/kW

Service connection charges under Para i) shall be applicable for loads upto 60KW where the length of new and augmented or both line(s) to be provided is upto 100 meters which will include 11kV line (whether overhead or cable LT line and service cable. Where this limit exceeds 100 meters, applicant shall be required to pay actual cost of RS 125 Per meter of !! kV line, LT line and service cable in excess of 100 meters as additional service connection charges (non refundable).However, no component of distribution substation transformer to be created would be charged wherever applicable.

iii) Extension of Load

a) Where the consumer is either paying service rentals or had paid the service connection charges on kW basis for the original load.

i) Extension in load bringing the total load upto 60 KW	To be charged at Rs 750 per KW for extension part only.

However charges for service line in excess of 100 meters shall be charged at Rs 125 per meter for length of service line (new or augmented or both) feeding such consumer.
Rentals on original load, if applicable, already shall continue.

b) Where the consumers had paid the service connection charge in full.

ii) No charges for extension shall be recoverable where the cost of service/common part of service line had been paid by the applicant at the time of release of original connection provided:
No augmentation of service/common portion of service lines had been carried out ever since the release of connection and also the additional load can be released from the existing line without augmentation and the cost deposited by the consumer at the time of release of original connection is not less than 'per kW charges' payable on the basis of total connected load (including extension in load)

For calculating per kW charges, the rate as applicable at the time of release of original connection shall apply for the existing load and prevailing rates for the extension in load. Difference, if any , between the actual cost paid and the recoverable amount 'per KW charges' shall be payable by such consumers at the time of extension in load.

This shall also apply to the cases fed through independent feeder laid at the cost of the consumer.

The cost of line/bay (33/66/132/220kV) paid by the consumer at the time of clubbing/conversion paid by the consumer at the time of clubbing of supply to higher voltage shall be appropriated towards service connection charges at the time of subsequent release of extension in load, if applicable. However, for calculating total 'per kW charges' service connection charges already recovered in respect of clubbing cases, applicable rates to different connections as existing prior to clubbing are to be taken into account.

iii) Cases involving augmentation of service/Common portion of service line or if the augmentation had taken place subsequent to release of connection shall be default with as per provisions of sub para (a)

c) While accessing the connected load for working out service connection charges, both general and industrial loads shall be taken into account.

d) The per kW, service charges for extension in load shall be as contained in Para 2 above and those shall be, in addition to the service rentals on the original load, if applicable thereon.

e) An increase in the connected load even without increase in the contract demand shall call for payment of service connection charges an per kW basis as applicable to the category in which total connected load after extension falls and shall be recoverable for extension part only. Consumers seeking extension in contract demand within the sanctioned connected load shall not be required to pay service connection charges on KW basis.

f) Consumers seeking contract demand higher than 60% of the connected load, shall be charged one time charge termed as 'Contract Demand Charges' as under :

1	For contract demand above 60% and upto 80% of connected load	Rs.200per kVA
2	For contract demand above 80% and upto 100 % of connected load	Rs 300 per kVA
3	Large Supply consumers getting at 33kV and above, are exempted from the payment of one time contract demand charges.	

g) In case of LT connections, Service rentals to the consumer existing prior to 1-11-2002, if applicable already shall continue.

<u>C. RECOVERY OF SERVICES CONNECTION CHARGES FOR EXTENTION OF LOAD BY CONSUMERS WHO HAD PAID THE FULL COST OF THE LINE.</u>

Industrial and Bulk supply consumers availing connection for load exceeding IMW have to pay the entire cost of service line laid for them. By virtue of paying the entire cost of the line involved in releasing the connection, consumer is entitled to avail within five years extension in load upto 100% of the original line for which the line had been erected provided that line so erected is capable of taking the load i.e. original load and extended load upto 100% of original load. If, however, line already erected is unable to take 100% extension of load, extension in load shall be limited to capacity of the line. In such an event, consumer is not required to pay service connection charges for the extension in load, provided the cost of line already provided by him is more than per kW charges calculated at the applicable rate from time to time on the total load including extension in load applied by the consumer.

a) If the extension in load applied by the consumer is in excess of the capacity of line already erected or more than 100 % of the original load, consumer shall pay the service connection charges as applicable to the new applicants.
b) If during the period of 5 Years from the date of connection some load has already been released from the line, whose entire cost has been paid by the consumer, who seeks extension in load within five years upto the extent of the capacity of the line or 100% of the original load within 5 years upto the extent of the capacity of the line or

100 % of the original load, whichever is lesser, release of additional load shall be regulated as under:

Load released on voltage above 11 kV and loads 1MW and above on 11kV:

Extension in load to the original consumer shall be allowed(within the contract demand for which line was originally erected for him) at the cost of the board, even if augmentation/erection of new lines is required.

Load less than 1MW released on 11 kV

In this case care should to taken for a period of 5 years that a margin of 100 % of the load of the original consumer is available in the capacity of the line. if other consumer(s) wants connection(s) to be released by utilizing the available margin, new consumer(s) singly or jointly, as the case may be shall pay towards the cost of augmentation of line so that sufficient margin in capacity is available to cater to the additional requirement of the original consumer.

c) Provisions of the preceding paras of this regulation shall not be applicable where as a result of extension in load the supply voltage level of the consumer charges or when the consumer changes the site of the premises.

D. SERVICE CONNECTION CHARGES FOR AGRICULTURE POWER

All prospective tubewell consumers covered under general category shall pay Rs 3000 per BHP as service connection charges

The above charges are recoverable where total length of service line including new 11 kV line, LT line (new/augmented) and service cable is upto 1 Km (out of which LT line/Service cable route length should not exceed 500 meters from the common pole).Where the total length of service line is more than 1 km (out of which LT line/Service cable route length should not exceed 500 meters),applicant under this category shall be required to pay cost of new 11 kV line beyond this limit at Rs 125 per meter as additional service connection charges. However, no component of distribution substation/transmission cost would be charged.

Annexure – 1

List of objectors who participated in the Public hearing on Tariff Petition at Chandigarh on 6th May 2011.

1. Er. R.P Singhla, Technical Advisor, National Consumer awarness Group, Chandigarh
2. Er. P.S Chawla, No. 431, Sector 44 A – Chandigarh
3. Sri D.S Chahal, President of Chandigarh Residence Social Welfare Federation, Chandigarh
4. Sri R.K. Kaplash, Chairman, Consumer Association, Chandigarh

Annexure 2

Allocation of share from CGS and other sources

Sl.no	Particulars	Installed Capacity (MW)	ED CHANDIGARH Share %		ED CHANDIGARH Share (MW)
I	NTPC		Firm	Total	
1	Singrauli	2000	-	0.80	16.00
2	Rihand I	1000	1.00	1.80	18.00
3	Rihand II	1000	0.80	1.61	16.10
4	Unchahar I	420	0.48	0.74	3.11
5	Unchahar II	420	0.71	1.52	6.38
6	Unchahar III	210	0.48	1.27	2.67
7	Anta	419	1.19	2.00	8.38
8	Auriya	663	0.75	1.31	8.69
9	Dadri	830	0.61	0.99	8.22
10	Kahalgaon II	1500	0.20	0.20	3.00
II	NHPC				
11	Salal	690	0.27	0.27	1.86
12	Tanak pur	94	1.28	1.28	1.20
13	Chamera I	540	3.90	3.90	21.06
14	Chamera II	300	0.67	1.63	4.89
15	Uri	480	0.62	0.62	2.98
16	Dhauliganga	280	0.72	1.52	4.26
17	Dulhasti	390	0.47	1.28	4.99
III	NPCIL				
18	NAPS	440	1.14	1.92	8.45
19	RAPP (U5&U6)	220	-	1.96	4.31
IV	Other Sources				
20	Tehri	1060	0.60	1.13	11.98
21	Bhakra (BBMB)	1325	3.50	3.50	46.38
22	SJVNL	1500	0.53	0.76	11.40
23	SEWA-II	160	1.31	1.79	2.86
24	PTC/Traders				
	Total				**217.17**

Annexure 3

Comparative Statement of bid offers from PTC/TRADERS

Sl.No	Trader	Source	Landed Price in Rs/Kwh 20-11-12							Remarks
			Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	
1	NVVNL	1) WBSEDCL & TSECL	Not offered		4.44	4.17	4.17	4.24	4.39	
		2) Torrent	6.88	6.88	6.16	6.16	6.16	6.16	6.16	
		3) VGL	4.91	5.06	4.44	4.17	4.17	4.24	4.39	
		4) MPCL	5.79	5.79	5.79	5.76	5.76	5.76	5.79	
2	Instinct Infra & Power							4.70	4.70	
3	Jaypee Karcham Hydro Corpn.Ltd			4.68	4.68	4.68	4.68	4.68	4.68	
4	GMR energy Trading Ltd				5.59	4.99	4.74			
5	Knowledge infrastructure systems Pvt Ltd	1) Eastern Region				4.50	4.50	4.50	4.50	Qty offered less than 50 MW
		2) CPPS in chathisgarh	5.04	5.04	5.04	4.79	4.79	4.79	4.79	Qty offered less than 50 MW
		3) Monnet ISPAT & Energy		4.50		3.90				Qty offered less than 50 MW
6	Tata Power Trading Company Ltd			5.45		4.25	4.25	4.25	4.65	