

## CHAPTER – 7

### DISCOMS : UAEDCL, LAEDCL & CAEDCL

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#### 7.1 Introduction

This order relates to Petition No. 3/2007 filed by UAEDCL, 4/2007 filed by CAEDCL, 6/2007 filed by LAEDCL for determination of their Annual Revenue Requirements and retail tariffs. The three Distribution Companies are the Distribution and Retail Supply Deemed Licensees to carry out distribution and retail supply business in their respective areas of Assam as per the provision of Section 14 (fifth Proviso) of the Electricity Act, 2003. The three Distribution Companies started functioning independently from 10<sup>th</sup> December, 2004 as per the Assam Electricity Reform First Transfer Scheme which was notified by the Government of Assam vide PEL.151/2003/pt/165 dated 10<sup>th</sup> December, 2004. The Government of Assam vide notification no. PEL.151/2003/Pt/349 dated 16<sup>th</sup> August, 2005 issued orders to give effect to the reorganization of the Assam State Electricity Board and the finalization of the provisional transfers effected as per the provisions of the Electricity Act, 2003 and the First Transfer Scheme.

The Commission notified the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 vide No. AERC. 2005/19 dated 28<sup>th</sup> April, 2006, which was published in The Assam Gazette on 24<sup>th</sup> May, 2006. As per clause 1.3 of the said Regulations, the Regulations shall come into force from the date of their publication in the official Gazette of the Government of Assam. As per clause 1.2, the Regulations shall apply to all distribution licensees operating in the state of Assam. The State Government vide Notification No PEL.133/2003/416 dated 7<sup>th</sup> June 2007 (**Annexure-III**) allowed to continue the Assam State Electricity Board (ASEB) to undertake the limited functions of Bulk purchase and bulk supply upto 9<sup>th</sup> December, 2007 in respect to the existing generating capacity and existing contracted capacity for the said period. It would be necessary to revisit the arrangement here to understand allocation of capacity by the State Government. As per the Notification, bulk purchase and bulk supply functions, namely, purchase of electricity in bulk from the generating companies including APGCL and supply of electricity in bulk to the

DISCOMs have been specified as functions retained by ASEB. Even though the State Government had not specifically allocated the generating capacity of stations of APGCL to the ASEB, the Government had notified that the purchase of electricity in bulk from the APGCL would be the responsibility of ASEB and ASEB would also supply electricity in bulk to the DISCOMs. As such, it can be construed that entire generating capacity of the APGCL had been allocated to the ASEB who, at present, is operating as a trading licensee in the State. As per section 86(1)(a) of the Act, the State Commission shall determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State. As per Section 86(1)(b) of the Act, the Commission shall regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State. As the APGCL will be supplying electricity in bulk to ASEB, and ASEB, as trader, in turn will be supplying electricity in bulk to the DISCOMs, the Commission has determined the tariff for the generating stations of the APGCL in line with the terms and conditions stipulated in the Regulations notified on 24<sup>th</sup> May'06 as far as practicable within the limitation of other related matters.

As per clause 5.3 of the Regulations, for multi year tariff principle, the tariff is to be determined on the basis of the principles enunciated for a period of three years commencing from 1<sup>st</sup> April, 2006 for distribution. The Tariff Policy notified by the Government of India on 6th January, 2006 also stipulated that the MYT framework is to be adopted for any tariffs to be determined from 1<sup>st</sup> April, 2006. However, the Commission decided to adopt the MYT from FY 2007-08 with a 3 year control period and accordingly the utilities are directed to file their Tariff Petitions for the entire control period. After thorough scrutiny of the petitions submitted by the utilities the Commission decided to adopt the principle of MYT in a cautious manner due to non availability of reliable data and therefore recalculated the ARR for 2007-08 in this Tariff Order and will take up the matter of ARR for 2008-09 and 2009-10 in due course on receipt of authentic records like Audited Annual Financial Statements of relevant years, Assets Registers etc. from the Utilities.

The Commission, had already admitted a Petition No 1 of 2007 from ASEB for approval of ARR and Bulk supply Tariff for FY 2007-08 making available to the

Commission full details of its operations including the quantum and the price of electricity purchased by it from the Central Generating Stations and other traders or generators and details of the price paid for the electricity supplied to Distribution Licensees to enable the Commission to discharge its functions under Section 86(1)(b) of the Act as stated earlier.

In the Tariff Order for 2006-07, the Commission had drawn the attention of the State Government to the situation resulting from non-allocation of generating capacities of the State Generating Stations and the respective share of the Central Generating Stations among the distribution licensees of the State which is sought to be addressed through an agreement made between ASEB and the distribution licensees with differential bulk sale rates. The Commission was of the view that the Deemed Trading Licensee does not have the discretion of charging differential bulk sale rates to different distribution companies. Meanwhile the Commissioner & .Secretary, Power (Elect) Deptt, Government of Assam vide his letter No. PEL.41/2006/132 dated 8<sup>th</sup> May, 2007 (**Annexure-IV**) informed the Commission that the Government is reexamining the issue of distribution configuration of the power companies in the state and contemplating to reorganize the distribution companies into one after examining the pros and cons of the legal as well as technical aspects in the greater interest of the people of Assam. The State Government requested the Commission to keep this aspect in view while finalizing the Tariff Proposals on the petitions of the distribution companies. The Commission had kept in mind the views of the Government while finalizing the tariff of the Utilities. The Commission feels that if the three distribution companies are combined into one, the question of charging differential Bulk Supply Tariff will not arise.

The Commission has fixed the bulk sale rate for ASEB for the electricity supplied to it by APGCL and CSGS. The tariff for APGCL units is based on tariff as per this order and for CSGS units as per orders of the CERC. The ARR of ASEB is inclusive of its cost of operation, which the Commission considered under section 86(1)(j) of the Act.

Having stated its policy, the Commission determines the tariff for the distribution licensees of the state in the next paragraphs. The Commission in determination of tariff and in issuing this tariff order is guided by the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, the provisions of the Electricity Act, 2003, the National Electricity Policy, the Tariff policy and the Commission's guidelines, in force.

## 7.2 Procedural history

In the Commission's Regulations namely Assam Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff Regulations) 2006, the Distribution Licensee is required to file the proposal for determination of distribution tariff annually with the Commission for the next year by 1<sup>st</sup> of December. On 29<sup>th</sup> November'06, The three Distribution Companies along with other petitioners requested for extension for filing of the Petition from 1.12.06 to 28.02.2007 on the following grounds

1. Filing of Multi-Year Tariff Petition requires collection large amount of data, its analysis so that reasonable assumptions can be made for next three years regarding likely load additions, likely customer mix etc. Other items of expenditure like O & M also need to be analysed thoroughly. This being the first MYT control period, DISCOMs will require special efforts to compile all the information.
2. The Tariff-Order for 2007-08 was made effective from 4<sup>th</sup> August, 2006. As such the actual data after implementation of the Tariff is available for four months only, which make it very difficult for projecting the figures for the remaining part of the year. At least six months actual figures will be needed for the realistic projection of the same.
3. As per the above Tariff Order except for the month November 2006, the availability of power is shown as surplus, estimated at 424 MU. But due to low monsoon actual position is quite different. ASEB has to make arrangement for extra purchase of power from Traders to overcome the crises. This has made the projection more difficult as the period of consideration is for three years.
4. The companies has also stated that due to non finalization of Balance Sheets for 2005-06, the companies are not in a positions to submit the same before the Commission along with their Tariff petitions within the schedule date.

The Commission reserved its order till 22.12.2006 vide its order dated 18.12.2006 (**Annexure-V**). The Commission granted extension of time till 28<sup>th</sup> February, 2007 with

condition detailed in the order vide order dated **22.12.2006 (Annexure-VI)**. Accordingly, DISCOMs along with other petitioners filed the Petition on 28.02.07 which was not admitted by the Commission as the petitions suffer from infirmity of incomplete submission of important and vital documents in support of their claim of ARR. The Commission issued order dated **08.03.07 (Annexure-VII)** to the Utilities directing them to furnish all detail information supporting their claims on ARR as per provision of AERC (Terms and conditions for determination of tariff) Regulations, 2006 within 30<sup>th</sup> March, 2007. The Petitioners submitted their revised petitions on dates shown as below:

UAEDCL : 05.04.2007

CEDCL : 04.04.2007

LAEDCL : 05.04.2007

The revised Tariff Petitions filed as per direction of the Commission still contained some discrepancies /anomalies which were brought to their notice. A meeting was also held on 27.04.07 for clarifying the discrepancies in the revised Tariff Petitions. The minutes of the meeting is annexed at **Annexure-VIII**. The petitioners having assured the Commission that they will make necessary rectification and remove the discrepancies, the Commission admitted the petitions vide its order dated 11.05.2007 (**Annexure-IX**) for further action as per provision of the AERC Conduct of Business Regulation 2004. As per the direction of the Commission, the petitioners have published the proposed ARR in the newspapers inviting objection on or before 21.06.2007. Later, on request from consumer organizations, the Commission extended the date for submission of objection petition till 10.07.07

In the Meantime, the Commission received a communication from the Government of Assam vide letter No PEL.41/2006/132 Dated 8<sup>th</sup> May, 2007 on the Distribution configuration in Assam as stated above. The Commission vide its letter No. AERC.251/2006/199 dated 14<sup>th</sup> May, 2007 (**Annexure-X**) had informed the Government that the Commission had admitted the Tariff petitions and asked if the Government had contemplated/decided to give any subsidies to the utilities.

### **7.3 Processing of Tariff Petition**

The Chief General Manager (CF), ASEB sent a letter dated 14.05.07 on behalf of all the Utilities on the points raised in the letter dated 24<sup>th</sup> April, 2007 and also on the points raised in the meeting held on 27.04.2007. While processing this letter, it was felt that a few more clarifications/additional information were needed for Tariff formulation and a letter dated 4<sup>th</sup> June, 2007 was sent to all the petitioners on the matter. A meeting was again held on 22.06.07 with representatives of ASEB, APGCL and AEGCL for clarification on some of the issues on the Tariff petitions of these companies. The minutes of the meeting are at **Annexure-XI**. As the data pertaining to DISCOMs requested vide letter dated 4<sup>th</sup> June, 2007 were not submitted by the Managing Directors of the DISCOMs, a letter dated 13<sup>th</sup> August, 2007 was sent to the MDs of the three DISCOMs to furnish the data. A meeting was held on 17.08.07 with officers of the DISCOMs for clarifications on some issues in the Tariff Petitions of the DISCOMs. The minutes of the meeting are at **Annexure-XI(a)**.

### **7.4 Summary of the Petition**

The Electricity Distribution Companies namely Lower Assam Electricity Distribution Company (LAEDCL), Upper Assam Distribution Company (UAEDCL) and Central Assam Electricity distribution Company (CAEDCL) submitted petitions for Annual Revenue Requirements (ARR) for FY 2007-08 to FY 2009-10 along with tariff revision proposals to meet the additional revenue requirements before the Assam Electricity Regulatory Commission (AERC) as per provision of The Electricity Act 2003 and regulations made under the Act.

The Commission after receipt of the petitions directed the petitioners to publish the ARR, the Tariff Proposal with existing Tariff and salient features of the Tariff Petitions of all distribution companies as below:

## A. Annual Revenue Requirements (ARR) of the Distribution Companies

Rs. crore

	FY 07-08		FY 08-09		FY 09-10		
	LAEDCL	UAEDCL	LAEDCL	CAEDCL	LAEDCL	CAEDCL	UAEDCL
Power Purchase							
Energy Available at interface point (MU)	1,614.01	1,201.63	1,796.12	1,179.62	2,019.10	1,326.06	1,503.22
Sale of Power (MU)	1,265.38	860.97	1,426.12	898.87	1,623.36	1,040.30	1,155.97
Loss %	21.60%	28.35%	20.60%	23.80%	19.60%	21.55%	23.10%
<b>INCOME</b>							
Revenue from tariffs & Miscell. Charges	649.00	447.90	799.78	452.82	977.35	541.31	659.19
<b>EXPENDITURE</b>							
Power Purchase	482.70	389.41	508.38	266.75	579.57	303.83	468.80
R&M Expense	6.71	7.87	7.11	6.90	7.54	7.31	8.84
Employee Expenses	113.54	77.39	147.60	114.79	162.36	126.27	110.66
A&G Expense	6.44	3.48	6.82	3.87	7.22	4.09	3.89
Depreciation	23.80	17.85	30.95	29.95	45.48	37.76	42.11
Interest & Finance Charges	35.16	28.75	52.28	37.31	64.97	42.02	55.25
Less: Interest & other expenses capitalised	1.32	1.46	4.40	1.60	0.48	0.03	0.01
Other Debits (incl. Prov for Bad debts)	15.06	23.26	30.12	9.97	35.21	9.22	44.17
Extraordinary Items	-	-	-	-	-	-	-
Other (Misc.)-net prior period credit	-	-	-	-	-	-	-
<b>Total</b>	682.10	546.54	778.87	467.93	901.88	530.48	733.71
ROE	0.79	0.75	0.79	7.67	0.79	7.67	0.75
Other Income	66.46	51.19	32.87	23.65	27.07	19.84	21.88
Provision for taxes	11.23	-	18.11	-	34.53	-	-
Annual Revenue Requirement	627.66	496.10	764.90	451.95	910.12	518.31	712.59

**B. Tariff Proposals with existing Tariffs**

LT CATEGORY		Existing in Rs.		Proposed in Rs.	
I	Jeevan Dhara	2.15	15/ connection	2.25	15/ connection
II	Domestic A upto 5 KVA				
	0-30kwh /month				
	0-120kwh /month /31-120kwh /month	2.75	30.00	3.00	30.00
	121-240/month	3.80	30.00	4.00	30.00
	Balance	4.50	30.00	4.75	30.00
III	Domestic B 5 kw to 20 kw	4.10	30.00	4.25	30.00
IV	Commercial upto 20 kw	4.50	110.00	4.75	110.00
V	General Purpose upto 20 kw	3.85	125.00	4.10	125.00
VI	Public lighting	4.20	120.00	4.40	120.00
VII	Agriculture upto 7.5 hp	2.25	30.00	2.50	30.00
VIII	Small Industries upto 25 kva				
	i) Rural	2.30	30.00	2.75	30.00
	ii) Urban	2.55	40.00	3.00	40.00
IX	Temporary Supply upto 20 kw (minimum charge)				
	i) Domestic	5.50	75.00/kw/day	5.80	75.00/kw/day
	ii) Non Domestic	6.50	120.00/kw/day	6.80	120.00/kw/day
HT CATEGORY					
I	HT Domestic above 25 kva	3.90	30.00	4.10	30.00
II	HT commercial above 25 kva	4.20	115.00	4.50	115.00
III	Public Water Works	4.05	125.00	4.30	125.00
IV	Bulk Supply				
	i) Government educational Institution	3.75	110.00	4.00	110.00
	ii) Others	4.05	145.00	4.50	145.00
V(a)	Small Industries 25 to 50 kva	2.75	40.00	3.20	50.00
V(b)	HT Industries-I ; 50 to 150 KVA	3.50	100.00	4.00	120.00
	TOD Tariff				
	0600 hrs to 1700 hrs	3.50		4.00	
	1700 hrs to 2200 hrs	5.50		6.30	
	2200 hrs to 0600 hrs	2.85		3.35	
V(c)	HT Industry-II (above 150 KVA)	3.60	140.00	4.00	150.00
		2.90	270.00	3.20	280.00
	TOD Tariff				
	0600 hrs to 1700 hrs	3.60		4.00	
	1700 hrs to 2200 hrs	4.80		5.30	
	2200 hrs to 0600 hrs	3.10		3.50	
VI	Tea, Coffee and Rubber (Season)	3.95	230.00	4.30	240.00
	TOD Tariff				
	0600 hrs to 1700 hrs	3.95		4.30	
	1700 hrs to 2200 hrs	5.50		6.00	
	2200 hrs to 0600 hrs	3.70		4.05	
	Off Season	3.95	40% of contract demand of season	4.30	40% of contract demand of season
VII	Oil and Coal	4.00	270.00	4.30	280.00

	TOD Tariff				
	0600 hrs to 1700 hrs	4.00		4.30	
	1700 hrs to 2200 hrs	5.50		6.00	
	2200 hrs to 0600 hrs	3.85		4.15	
VIII	Irrigation	3.20	40.00	3.50	40.00

### C. Salient Features of Tariff Petitions for FY 2007-08

	LAEDCL	CAEDCL	UAEDCL	Total
MU Purchase	1614.01	1060.02	1201.63	3875.66
MU Sales	1265.38	778.58	860.97	2904.93
% Loss	21.60	26.55	28.35	
BST rate per unit (Differential)-Rs./per unit	<b>2.21</b>	<b>1.63</b>	<b>2.46</b>	<b>2.13</b>
Average Tariff (Rs / kwh)	5.20	5.20	5.20	5.20

Further, the Commission directed that copies of tariff petitions and other relevant documents be made available to consumers and other interested parties at the offices of the Superintending Engineer / Chief Executive Officers of each distribution circle office of all Distribution Companies and at other offices as may be arranged. Accordingly the documents may be collected from the concerned offices by paying Rs. 150/- (Rupees One hundred fifty only) by cash /DD in the name of concerned Distribution Companies. A consolidated handout on tariff petitions may also be collected from the respective offices by the consumers and other interested parties, not willing to purchase the documents above.

The Commission further directed that any person intending to file objection or comments in regard to proposed Annual Revenue Requirements (ARR) of the Companies may do so by filing statement of objections or comments before the Secretary, Assam Electricity Regulatory Commission with copies of relevant documents and evidences in support thereof along with the affidavit as in Form-2 of Assam Electricity Regulatory Commission (Conduct of Business) Regulations, 2004. Such objections or comments shall be submitted in 5 (five) copies by registered post or in person which should reach the Secretary, Assam Electricity Regulatory Commission, ASEB Complex, 6<sup>th</sup> Mile, Dwarandhar, Guwahati-22 on or before 21<sup>st</sup> June'2007. A copy of the filing submitted to the Secretary, AERC should also be made available to the respective Managing Directors, UADCL/LAEDCL/CAEDCL, Bijulee Bhawan, Paltan Bazar, Guwahati - 1 positively and

proof of such submission shall be furnished to the Commission. Copies the petitions are also available in the web site of the Commission [www.aerc.gov.in](http://www.aerc.gov.in) and in web site of distribution companies [www.asebonline.org](http://www.asebonline.org).

The Commission also stated that ‘the Commission may hear the persons filing objections or comments at the venue and date as may be determined by the Commission. The date and place shall be notified later. Person filing objections or comments on the ARR may also indicate whether they would like to be heard by the Commission in person.’

## **7.5 Public Hearing**

The Commission prepared draft notice incorporating the summary of the ARR proposed and also the tariff suggested by DISCOMs and sent it to the DISCOMs for publication in two leading Assamese dailies, two leading English dailies and one leading Bengali newspaper not later than 22.06.2007. The notice was published on different dates in the following newspapers.

- i) The Assam Tribune
- ii) The Sentinel
- iii) Dainik Asom
- iv) Dainik Jugasankha

The Commission held a public hearing on the tariff petition of DISCOMs in the Assam Administrative Staff College, Khanapara, Guwahati on 20<sup>th</sup> July, 2007.

## **7.6 State Advisory Committee**

The members of the State Advisory Committee were apprised of the Tariff Proposal of DISCOMs in its meeting held on 27<sup>th</sup> June, 2007. The members of the Committee discussed the issue and offered valuable suggestions which have been taken note by the Commission in finalizing this order (**Annexure-XII**).

## **STATUS OF THE DISTRIBUTION COMPANIES**

- 2.1 The Electricity Distribution Companies, namely, Lower Assam Electricity Distribution Company ( LAEDCL), Central Assam Electricity Distribution Company ( CAEDCL), and Upper Assam Electricity Distribution Company ( UAEDCL) were incorporated under the Companies Act, 1956 and has come into being on 10<sup>th</sup> December, 2004. The Government of Assam notified the transfer scheme vide its notification No. PEL.150/2003/Pt/349 dated 16<sup>th</sup> August,2005 as per which the Distribution Companies were assigned assets and liabilities, on a provisional basis as per the table shown in page 171 of Tariff order 2006-07
- 2.2 It was stated in the notification that the opening balance has been prepared based on the approved accounts of Assam State Electricity Board as on 31st March 2004 and such opening balance sheet shall all be subject to all consequential adjustments on the update, finalization and audit of accounts of ASEB as on 31st March' 2005.
- 2.3 The Audited Financial statement of ASEB for 2004-05 ending as on 31<sup>st</sup> March, 2005 was published in August, 2006 after the tariff order for FY 2006-07 was notified by the Commission on 28<sup>th</sup> July, 2006.
- 2.4 Based on the Audited Financial Statement of FY 2004-05, the Opening Balance Sheet (OBS) was updated for all unbundled entities as per the GOA Notification No. PEL.150/2003/Pt/349 dated 16<sup>th</sup> August, 2005 and send to Government of Assam vide ASEB.AXT/FIN/21/48 dated 19<sup>th</sup> September, 2006 for notification.
- 2.5 After consequential adjustment of accounts as per the GOA notification, the OBS as on 01.04.2005 is modified as below:

Particulars	LAEDCL	CAEDCL	UAEDCL
<b>ASSETS</b>			
Gross Fixed Assets	297.04	228.91	239.47
Less: Accumulated Depreciation	203.34	159.35	144.67
<b>Net Fixed Assets</b>	<b>93.70</b>	<b>69.56</b>	<b>94.80</b>
Capital Work in Progress	<b>141.93</b>	<b>93.17</b>	<b>95.09</b>
Investment	<b>36.01</b>	<b>35.09</b>	<b>35.78</b>

Particulars	LAEDCL	CAEDCL	UAEDCL
<b>Total Current Assets</b>	137.93	112.23	107.56
<b>Total Current Liabilities</b>	(176.38)	(95.46)	<b>(125.72)</b>
<b>Net Current Assets</b>	<b>(38.45)</b>	<b>16.77</b>	<b>(18.17)</b>
<b>Total Assets</b>	<b>233.19</b>	<b>214.59</b>	<b>207.50</b>
<b>FINANCED BY</b>			
Borrowing for Working Capital	0	0	0
Payment due on Capital Liabilities	4.66	3.61	4.10
Payment due on Capital Liabilities	6.85	4.67	9.84
Fund / Loan from State Govt.	52.31	49.14	44.71
Equity Share Capital	58.64	47.95	56.03
Contribution, Grants & subsidies towards cost of capital assets	26.54	27.34	27.85
Reserve & funds	84.19	81.88	64.97
Deficit / Surplus	0	0	0
<b>Total Fund</b>	<b>233.19</b>	<b>214.59</b>	<b>207.50</b>

### Capital Cost for Tariff Calculation:

As per the provision of Section 131(2) of the Electricity act 2003 the transfer scheme notified by the Govt. is the value of assets transferred. Section 131(3) (a) stipulates that “*The transfer scheme involves the transfer of any property or rights to any person or undertaking not wholly owned by the state Government, the scheme shall give effect of the transfer only for fare value to be paid by the transferee to the state Government. The GOA vide Notification dated 16<sup>th</sup> Aug’05 notified a provisional transfer scheme which was subjected to consequential adjustment of Audited Financial Statement of ASEB for 2004-05. The final scheme has already approved by ASEB and sent to GOA for notification. The ASEB and other entities have prepared the Balance Sheet and Financial Statement based on this final transfer scheme.*

In the transfer scheme both GFA and NFA has been shown considering NFA for the purpose of balance sheet. In the Scheme, the GFA is a cumulative addition of assets since inception of erstwhile ASEB’s distribution assets without having any information in form of asset register showing residual life of assets as on date of transfer. The cumulative depreciation shown in the scheme was similar to the GFA without any information about cumulative depreciation of individual assets, many of the assets might have been fully depreciated during the years of operation.

As an example of APGCL, where GFA is shown as Rs 712.37 Cr. Along with cumulative depreciation of Rs 512.09 Cr the NFA is at Rs 200.28 Cr. Considering the available information of DOCO (Date of Commercial Operation) of all the generating units along with useful life as per the depreciation schedule, most of the units of all old generating stations have crossed the useful life and 90% of GFA as depreciation. Accumulated depreciation and NFA might be for the assets which has not yet cross the useful life and may be due to addition of assets during the process of operation under R&M (Renovation and modernization) schemes etc.

Similar is the case of all other entities like DISCOMs where asset wise record to ascertain the asset crossing the useful life is not available.

The AERC has stress the need of “Assets register” since its first tariff order of 2001-02. However, the same has not yet materialized in spite of repeated directions in subsequent tariff orders. However utilities are not in a position to furnish the same till date. In this petition the utilities submitted before the Commission that the same is under process.

In the AERC T&C for tariff regulation also, the OBS as per transfer scheme has been stated as capital cost for first year of operation.

Considering above, in the absence of asset register, the GFA with cumulative depreciation of the notified transfer scheme is considered as value of assets under operation for all entities as on 01.04.05 and updated to arrive at the value for 2007-08.

In the following paragraphs, the Commission has determined the ARR of LAEDCL/CAEDCL/UAEDCL based on the updated opening balance sheet notified by Govt. of Assam and the additions made during FY 2005-06 to 2007-08 and AERC (T&C for Tariff) Regulation, 2006 as far as applicable.

## **ARR ANALYSIS**

The Commission has reviewed the estimates of each ARR cost elements submitted by DISCOMs and made its own assessment of the level of expenditure required. The table below presents the estimates filed and the approved ARR cost elements for LAEDCL, CAEDCL and UAEDCL:

## DISCOMS DISTRIBUTION COMPANIES (DIFFERENTIAL BST)

ARR Element	Filed (Rs. crore)				Approved (Rs. crore)				Remarks	
	LAEDCL	CAEDCL	UAEDCL	Total	LAEDCL	CAEDCL	UAEDCL	Total		Diff.
MU Purchase	1614.01	1060.02	1201.63	3875.66	1614.01	1060.01	1201.63	3875.65	559.19	Trading Sale
MU Sales	1265.38	778.58	860.97	2904.93	1265.38	778.58	860.97	2904.93		
% Loss	21.60	26.55	28.35	25.05	21.60	26.55	28.35	25.05		Energy available for DISCOMs is 3875.65 MU and Trading sale is (4392.35 - 3875.65) i.e <b>516.70</b> MU excluding PGCIL Losses of 33.55MU
BST rate per unit -Rs./per unit (@Note)	<b>2.99</b>	<b>2.41</b>	<b>3.24</b>	<b>2.91</b>	<b>2.55</b>	<b>2.12</b>	<b>2.32</b>	<b>2.36</b>		
<b>Power Purchase Cost : DISCOMS</b>	482.70	255.18	389.41	1,127.29	411.38	224.42	278.33	914.14		
<b>Transmission Charge : DISCOMS</b>				301.76	87.20	57.27	64.92	209.40		allocated on Unit basis
<b>SLDC Charge (See Note)</b>				7.56	2.81	1.85	2.09	6.75		allocated on peak demand basis
Employee Cost	113.54	88.30	77.39	279.23	113.54	88.30	77.39	279.23		at actual (0.00)
Repairs and Maintenance	6.71	6.51	7.86	21.08	6.44	7.18	4.61	18.23		allowed 6% rise (2.85)
Administration and General	6.44	3.65	3.48	13.57	4.76	3.47	3.67	11.90		allowed 6% rise (1.67)
<b>Interest &amp; Finance Charges</b>				32.32	-	1.59	-	1.59		as per regn. & cost of Capital Chart (30.73)
Interest on term loan (All)	10.06	12.62	9.64	32.32	-	-	-	-		
Other financing Charges less Capitalised	6.16	7.08	5.02	18.26	10.36	6.77	7.04	24.17		As per regulation (18.26)
Interest on working capital	14.50	9.76	10.19	34.45	10.36	6.77	7.04	24.17		Separate Calculation (10.28)
Interest on security deposit	3.12	1.55	2.44	7.11	3.36	1.55	2.63	7.54		Separate Calculation at actual 0.43
<b>Depreciation</b>						10.20				

Provision for doubtful debts	23.81	24.10	17.85	65.76	5.75		6.88	22.82	1% of gross revenue, as per regn.	(42.94)
	15.06	9.08	23.26	47.40	5.60	3.44	3.81	12.85		(34.55)
<b>Total Expenditure</b>	<b>682.10</b>	<b>417.83</b>	<b>546.54</b>	<b>1,646.47</b>	<b>651.21</b>	<b>406.04</b>	<b>451.37</b>	<b>1,508.62</b>		(137.85)
Less Miscellaneous receipts	66.46	45.70	51.19	163.35	95.79	65.12	73.40	234.30	at actual & est. trading sales	(70.95)
<b>Net Expenditure</b>	<b>615.64</b>	<b>372.13</b>	<b>495.35</b>	<b>1,483.12</b>	<b>555.43</b>	<b>340.92</b>	<b>377.98</b>	<b>1,274.33</b>		(208.79)
Return on Equity	0.79	7.67	0.75	9.21	4.11	3.36	2.73	10.20	as per regn. & cost of Capital Chart	0.99
Provision for Taxes	11.23	-	-	11.23	-	-	-	-		(11.23)
<b>Total ARR</b>	<b>627.66</b>	<b>379.80</b>	<b>496.10</b>	<b>1,503.56</b>	<b>559.54</b>	<b>344.28</b>	<b>380.71</b>	<b>1,284.52</b>		(219.04)
Average cost	<b>4.96</b>	<b>4.88</b>	<b>5.76</b>	<b>5.18</b>	<b>4.422</b>	<b>4.422</b>	<b>4.422</b>	<b>4.4219</b>		

## **7.7 Power Purchase Cost**

Cost of power is the most important item of expenditure for the Licensees. The Commission examines in detail the projected availability of power from different sources and the requirement of sales. In the ARR, power purchases are considered only from those sources which have long-term contracts with ASEB. The rates of power purchases from individual generators are on the basis of their respective agreements. As of now, the entire power is purchased by ASEB on behalf of the DISCOMs. The detailed analysis of power purchase cost is given in Chapter 6, ASEB. As regards energy costs for DISCOMs, the methodology adopted is to take the total energy cost, commonly known as Bulk Supply Tariff (BST).

In addition to BST, the DISCOMs are liable to bear the transmission cost in the form of transmission charges and SLDC cost in form of SLDC charges which are separately notified in the Tariff order of AEGCL.

## **7.8 Transmission Charge**

The calculation of Transmission Charges has been dealt in Chapter 5, AEGCL.

## **7.9 SLDC Charge**

The calculation of SLDC Charges has been dealt in details in Chapter 5, AEGCL.

## **7.10 Employee Cost**

The LAEDCL/ CAEDCL/ UAEDCL have claimed an amount of Rs. 113.54 crore/ Rs.85.30 crore/ Rs.77.39 crore, respectively. The Commission fully allowed the claim made. The Commission noticed new manpower recruitment, merger of Dearness allowance into basic pay, improved productivity, rise in cost of living etc. which results in rise in Employee cost expenses.

### **7.11 Repairs & Maintenance**

R&M expenses are important to maintain and improve reliability of power supply. A rise of 6% has been allowed over the last financial year's approved amount among the different elements of R&M expenses. While allowing 6% increase, the Commission has taken into account normal inflation @ 5% and 1% cushion to take care of any additional expenditure.

### **7.12 Administration and General Expenses**

The Commission has estimated the Administration and General expenses by giving a rise of 6% for all the items over the figures of Tariff order for FY2006-07. While allowing 6% increase, the Commission has taken into account normal inflation @ 5% and 1% cushion to take care of any additional expenditure.

### **7.13 Calculation of Capital Cost, Equity and Debt**

The Commission re-calculated the Capital Cost, Equity component and Debt component of DISCOMs on the basis of the AERC (Terms and conditions for determination of Tariff) Regulations, 2006. The Gross Fixed Assets value as on 01-04-2005 after deducting there from the contributions, grant and subsidy, if any, as per notification No. PEL.15/2003/Pt./349 dated 16-08-2005, has been considered as the capital cost as on 01-04-2005. The entities didn't show any addition of assets during FY 2005-06 in their petition. As such, the capital cost as on 01-04-2007 is arrived at by taking into account the addition towards the cost of Fixed assets during the FY2006-07 and the cumulative grant towards the fixed assets till 31.3.2007. All contribution, grants & subsidies towards the additions of Fixed Assets are excluded to arrive at the Approved Cost of Capital as on 01.04.2007.

To arrive at the Equity component of this capital cost, the commission first considered the actual equity as on 01.04.2007, as per the figures submitted in their petitions. This amount of actual equity has been approved by the commission as Equity on 01-04-2007, subject to a ceiling of 30% of the approved capital cost as on 01-04-2007 detailed at **Annexure-XIII**.

To arrive at the Debt component of this capital cost as on 01-04-2007, the commission deducted the approved Equity component from the approved Capital Cost. The accumulated depreciation as on 01-04-2005, as per notification No. PEL.15/2003/Pt./349 dated 16-08-2005 is considered as the amount available to the entity for repayment of debt till 01.04.2005. For the FY 2006-07, the commission allowed only an amount required for capital repayment as depreciation, instead of the actual depreciation filed for. As such, the accumulated depreciation as on 01-04-2005 and the amount allowed by the Commission against depreciation in the FY 2005-06 & FY 2006-07 has been deducted from the Debt as on 01.04.2007 to arrive at the debt component as on 01.04.2007. This amount of debt capital has been approved by the Commission as Debt on 01.04.2007, subject to a minimum amount of Rs.0 (zero) if the amount so arrived is negative detailed at **Annexure-XIII**.

#### **7.14 Capital Work-in-Progress (CWIP)**

The CWIP as on 01-04-2005, as per updated OBS based on Audited Financial Statement of FY 2004-05 was Rs.141.93 crore / Rs.93.17 crore / Rs.95.80 crore for LAEDCL /CAEDCL /UAEDCL, respectively. In comparison to the Net fixed Asset of Rs.93.70 crore / Rs.69.56 crore / Rs.94.80 crore for LAEDCL / CAEDCL /UAEDCL, respectively as on 01-04-2005, the CWIP seems to be high. At every stage of completion of the schemes under progress, a part of this CWIP will be added to the Gross Fixed Assets, and thereby will become a part of Capital Cost in due course. This will add to the ARR of the entities in the form of depreciation, ROE and interest on debt capital. The Commission feels that there is a need to do thorough scrutiny of CWIP. **The Distribution Companies are directed to account for amount of capital locked up in CWIP and its conversion into Gross Fixed Assets in the current FY 2007-08 and submit its report to the Commission within two months from the end of financial year 2007-08.**

#### **7.15 Interest on term Loan**

Interest on term loan has been allowed at par on last financial year basis @ 9.90%, on the approved debt capital.

As the approved debt as on 01-04-2007 for CAEDCL is positive, hence interest is provided. The following table highlights the same:

Sl. No.	Particulars	DISCOMS			Total
		LAEDCL	CAEDCL	UAEDCL	
1	Approved Debt Capital as on 01-04-2007.	0.00	16.08	0.00	16.08
2	Average Rate of Interest	0.00%	9.90%	0.00%	
3	Interest on Term Loan	<b>0.00</b>	<b>1.59</b>	<b>0.00</b>	<b>1.59</b>

### 7.16 Return on Equity

The Commission observed that overall performance of the DISCOMs is not satisfactory. The National Tariff Policy guideline opined that “Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector. As such, the Commission approved a Return on Equity @ 7% only to the DISCOMs on their approved Equity as follows:-

Sl. No.	Particulars	DISCOMS			
		LAEDCL	CAEDCL	UAEDCL	Total
1	Approved Equity Capital as on 01-04-2007.	58.69	47.95	39.01	145.65
2	Rate of ROE Allowed	7.00%	7.00%	7.00%	
3	<b>ROE Approved</b>	<b>4.11</b>	<b>3.36</b>	<b>2.73</b>	<b>10.20</b>

### 7.17 Interest on Working Capital Loan

Interest on working capital has been estimated based on the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The Commission allowed interest on working capital @ 9.5 % as follows:-

<b>Working Capital Component (Rs.crore)</b>	<b>LAEDCL</b>	<b>CAEDCL</b>	<b>UAEDCL</b>
A. One month O&M Cost	10.40	8.25	7.14
B. 1% of GFA (542.64/563.44/352.16)	5.43	5.63	3.52
C. Two Months Receivables	93.26	57.38	63.45
Working Capital (A+B+C)	109.08	71.26	74.11
<b><u>Determination of Interest</u></b>			
Interest @9.5%p.a	<b>10.36</b>	<b>6.77</b>	<b>7.04</b>

## 7.18 Bank Charges

No Bank Charges are allowed for calculation of Annual Revenue requirement as the same is not provided in the petitions.

## 7.19 Interest on Security Deposit

As per subsection (5) of Section 47 of the Electricity Act, 2003 the distribution licensee is required to pay interest at Bank Rate or more on the security deposit collected from the consumers. In Tariff Order for FY2006-07, **the Commission directed the DISCOMs to furnish details of ‘interest on Security Deposit’ refunded to the consumers within one month of the order, without fail. In this Tariff Order also, the DISCOMs are directed to furnish the up to date position of ‘interest on Security Deposit’ refunded to the consumers within one month of the order, without fail.**

The Commission has allowed the interest on Security Deposit as follows:-

<b>Interest on Security Deposit @ 5% p.a. allowed</b>		
<b>Name of the Distribution Companies</b>	<b>Amount of Security Deposit (Rs. crore)</b>	<b>Amount of Interest (Rs. crore)</b>
LAEDCL	67.20	3.36
CAEDCL	30.97	1.55
UAEDCL	52.58	2.63
Total	150.75	7.54

## 7.20 Depreciation

Depreciation has been allowed to DISCOMs, based on the figures of the Final

Transfer Scheme, as per notification No. PEL.15/2003/Pt./349 dated 16-08-2005 and, the calculation submitted by the petitioner in their petition. The Commission included the additions made to the Fixed Assets for the FY 2006-07 and FY 2007-08 as submitted in their petitions and revised petitions filed subsequently. All the cumulative grants have been deducted from the Gross Block of the Fixed Assets till 31-03-2008 for the purpose of depreciation calculation as per the Regulations. The rate of depreciation provided is as per the AERC regulations on each individual class of assets on 90% of the Net Fixed Assets as derived after taking into consideration the cumulative grants and addition made to the fixed assets as submitted by the petitioners. However, the Commission shall have the right to re-analyze the depreciation allowed on the receipt of audited financial accounts.

## 7.21 Provision for doubtful debt

The Commission has recognised the need for creating a Bad and Doubtful Debts Reserve from the very first year of operation of the new Distribution Companies. .

This year, the Commission allowed provision for bad and doubtful debt @1% of the total revenue at par with last year and as envisaged in the Regulation, as follows:-

Rs. in crore

LAEDCL	CAEDCL	UAEDCL
5.60	3.44	3.81

**The Commission directs the DISCOMs to submit details of the bad debt written-off in FY 2006-07 within one month of this order, without fail.**

## 7.22 Miscellaneous Receipt

The miscellaneous receipt consists of meter rent, transformer repair charges, sales of scrap, etc. including the Trading receipts. The Commission has accepted the amount given in the petitions but the Commission reanalyzed the 'Receipts from the Trading sales' and arrived at the figures shown.

**Miscellaneous Receipt / Other Income****DISCOMS  
TOTAL**

2007-08 TOTAL

Items	Allowed	Filed
Interest on staff loans and advances	-	-
Income from investment	2.15	2.15
Interest on loans and advances to licensees	-	-
Delayed payment charges from customers	1.64	1.64
Interest on advances to suppliers	-	-
Interest from Banks (other than fixed deposits)	-	-
Income from Trading	172.92	101.97
Gain on sale of Fixed Assets	-	-
Rebate on Power Purchase	-	-
Income from staff welfare activities	-	-
Transmission income from de-pooling (de-pooling of PGCIL transmission charges)	-	-
Miscellaneous receipts from consumers	45.89	45.89
Sub-Total	-	-
Rental from Meters, Service lines, Capacitors, etc.	-	-
Reconnection/disconnection charges	-	-
Recoveries from theft of power and malpractices	-	-
Wheeling charges	-	-
Miscellaneous recoveries	11.70	11.70
Sub-Total	-	-
RE Subsidies	-	-
GoA support	-	-
Grand Total	<b>234.30</b>	163.35

## **SALES PROJECTIONS, REVENUES AND REVENUE GAP**

### **7.23 Sales Projections**

The DISCOMs estimated the sales for FY07-08 for each category of consumers based on first six months actual sales and the estimated sales for the remaining six months of the year 2006-07. The estimated sales volumes in this manner have been incorporated in the filings. However, as the financial year 2006-07 come to end at the time of final filing, the Commission decided to refer the actual sale figure for the last FY. With the confirmation of the sales growth with higher volume for previous year and sales information in the form of sales database, the Commission approves a sales forecast projected by the DISCOMs. The Commission feels that the forecasting should be done at disaggregated level and to begin with, it should start at operation circle/district level.

### **7.24 Load Profiles**

The consumer load profiles are the basis for the cost of service model and also to arrive at the time of day consumption for each consumer class. It is the primer for any intervention towards energy conservation besides the tariff making exercise. Further, as the open access is required to be provided, detailed consumer load profiles should be helpful for the DISCOMs for better planning to retain consumer loads with them. The disaggregated load profiles are highly desirable for better segmentation of consumers for tariff making apart from their uses in planning. The available load profiles at present are based on metering installed at the consumer premises.

The sales projections by DISCOMs for FY 2007-08 and the Commission's approved volumes for FY 2006-07 are given below.

## All DISCOMs

Cat No	Category	FY2006-07		FY2007-08	
		Approved	Actual as per petitions	Filed	Approved
	<b>LT GROUP</b>				
		MU	MU	MU	MU
1	<b>Jeeban Dhara 0.5 kw &amp; 1kwh/day</b>	65.00	68.60	74.82	74.82
2	<b>Domestic: A - above 0.5kw to 5 kw</b>				
	<b>First 4kwh/day</b>	595.00	697.17	762.46	729.29
	<b>Next 4 kwh/day</b>	133.00	106.36	118.78	92.81
	<b>Balance</b>	64.00	68.87	77.58	48.91
		<b>792.00</b>	<b>872.39</b>	<b>958.82</b>	<b>871.07</b>
3	<b>Domestic-B above 5 kw to 20kw</b>	58.50	72.87	74.72	104.75
4	<b>Commercial Load above 0.5 to 20kw</b>	202.00	219.64	232.46	262.54
5	<b>General Load upto 20 kw</b>	61.00	63.86	74.90	99.90
6	<b>Public Lighting</b>	8.5	7.36	7.71	7.80
7	<b>Agriculture upto 7.5hp</b>	2.05	2.74	7.11	7.11

Cat No	Category	FY2006-07		FY2007-08	
		Approved	Actual as per petitions	Filed	Approved
8	Small Industries Rural upto 20kw	39.00	33.36	38.45	37.04
9	Small Industries Urban	29.00	25.68	27.86	26.61
10	Temporary supply				
	LT TOTAL	1257.05	1366.49	1496.87	1491.58
	<b>HT GROUP</b>				
1	HT Domestic 20kw and above	34.00	32.62	35.85	34.76
2	HT commercial 20kw & above	84.00	95.04	97.13	156.99
		118.00			
4	Public Water works	41.00	39.16	41.36	49.05
5	Bulk supply 20kw and above				
	Govt. Edu Inst	24.00	29.43	41.04	33.41
	Others	248.00	274.99	335.59	267.93
		272.00	304.42	376.63	301.34

Cat No	Category	FY2006-07		FY2007-08	
		Approved	Actual as per petitions	Filed	Approved
6	HT Small Industries upto 50 kw	18.3	19.57	23.28	54.85
7	HT Industries-I 50kw to 150 kw	41.00	34.12	40.83	40.73
8	HT Industries-II above 150 kw	291.00	335.64	426.79	330.61
9	Tea Coffee & Rub	300.00	278.67	289.57	303.17
10	Oil & Coal	59.5	55.56	63.02	74.30
11	HT Irrigation Load above 7.5 hp	19.85	14.04	13.59	67.49
	HT Total	1160.65	1208.84	1408.04	1413.294
	All Total	2417.70	2575.33	2904.91	2904.874

Against actual sales of 2575.33 MU for all the DISCOMs for 2006-07, the Commission has projected a sale of 2904.87 MU for all the DISCOMs for 2007-08, an increase of 12.80%.

### **REVENUE AND REVENUE GAP FOR FY 2007-08**

The DISCOMs projected the revenue at Rs.1503.56 cr for FY 2007-08 at the proposed tariff for estimated sale of 2904.91MU. The Commission estimates, the revenue from the approved tariff at Rs.1285.05 cr for approved sale of 2904.874 MU.

As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at their proposed tariff is computed at Rs.390.35 cr for FY 2007-08. The Commission's own assessment on sales and other issues, the revenue gap at approved tariff for FY07-08 is Rs.14.15 Cr. The Average Billing Rate for all the DISCOMs comes out to be Rs. 4.38 per unit at existing tariff for sale of 2904.874 MU at Rs. 1270.90. On the other hand, the approved Average Billing Rate for all the DISCOMs at approved tariff for FY 2007-08 for sale of 2904.874MU at Rs. 1285.05 is Rs.4.42 per Unit.

The table below gives the DISCOM-wise average billing rate (ABR) and other related figures for FY2007-08:

Particulars	LAEDCL	CAEDCL	UAEDCL	Total
<b>As proposed in the Petition</b>				
Sales (MU)	1265.38	778.58	860.95	2904.91
Sales (Rs. In crore)	627.66	379.80	496.10	1503.56
ABR (Rs. Per Unit)	4.96	4.87	5.76	5.17
Revenue Gap (Rs. In crore)	174.68	100.56	115.11	390.35
Differential BST (Rs. Per Unit)	2.21	1.63	2.46	2.13
<b>At existing tariff and approved sales unit</b>				
Sales (MU)	1254.40	752.63	897.84	2904.874
Sales (Rs. In crore)	543.57	320.46	406.87	1270.90
ABR (Rs. Per Unit)	4.33	4.26	4.53	4.38
<b>At approved tariff and approved sales unit</b>				
Sales (MU)	1254.40	752.63	897.84	2904.874
Sales (Rs. In crore)	549.78	324.08	411.19	1285.05
ABR (Rs. Per Unit)	4.38	4.31	4.58	4.42

Particulars	LAEDCL	CAEDCL	UAEDCL	Total
Revenue Gap (Rs. In crore)	6.21	3.62	4.32	14.15
Differential BST (Rs. Per Unit)	2.28	1.81	2.05	2.08

The difference in ABR amongst three DISCOMs is mainly on account of different consumer mix of these DISCOMs. This variance in Consumer Mix, sales quantity and AT&C losses amongst three DISCOMs are the major causes for difference in the Revenue Gap of three DISCOMs. The Commission applied Differential BST to maintain a Uniform Retail Tariff all over Assam.

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