



**ASSAM ELECTRICITY REGULATORY COMMISSION
(AERC)**

**TARIFF ORDER
FY 2014-15**

Assam Power Generation Corporation Limited (APGCL)

Petition No. 13/2013

Petition No. 14/2014

ASSAM ELECTRICITY REGULATORY COMMISSION

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List of Abbreviations

A&G	Administrative & General
ABT	Availability Based Tariff
ADB	Asian Development Bank
AEGCL	Assam Electricity Grid Corporation Limited
AERC	Assam Electricity Regulatory Commission
APDCL	Assam Power Distribution Company Limited
APDRP	Accelerated Power Development and Reforms Programme
APGCL	Assam Power Generation Corporation Limited
APR	Annual Performance Review
ARR	Annual Revenue Requirement
ASEB	Assam State Electricity Board
BTPS	Bongaigaon Thermal Power Station
CEA	Central Electricity Authority
EPC	Engineering Procurement Construction
FPPPA	Fuel and Power Purchase Price Adjustment
FY	Financial Year
GCV	Gross Calorific Value
GoA	Government of Assam
Gol	Government of India
GSHR	Gross Station Heat Rate
KLHEP	Karbi Langpi Hydro Electric Project
kV	Kilo Volt
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour
LRPP	Lakwa Replacement Power Project
LTPS	Lakwa Thermal Power Station
MAT	Minimum Alternate Tax
MMSCMD	Million Metric Standard Cubic Metres per day
MU	Million Unit
MW	Mega Watt
MYT	Multi-Year-Tariff
NCV	Net Calorific value
NPC	National Productivity Council
NRPP	Namrup Replacement Power Project
NTPC	National Thermal Power Corporation
NTPS	Namrup Thermal Power Station
PAF	Plant Availability Factor
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
R&M	Repairs and Maintenance
ROE	Return on Equity

Rs.	Rupees
SHR	Station Heat Rate
T.C.	Transportation Cost
TEC	Techno Economic Clearance

ASSAM ELECTRICITY REGULATORY COMMISSION

Guwahati

Present

Shri Naba Kumar Das, Chairperson

Dr. Rajani Kanta Gogoi, Member

Shri Dipak Chakravarty, Member

Petition No. 13/2013

Petition No. 14/2014

Assam Power Generation Corporation Limited (APGCL) - Petitioner

ORDER

(Passed on 21.11.2014)

- (1) The Commission issued the Order on approval of Multi Year Tariff for The Assam Power Generation Corporation Limited (APGCL) for the period from FY 2013-14 to FY 2015-16, on November 21, 2013.
- (2) Regulation 6.1 of the Assam Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2006 specifies that the generating company shall file a Tariff Petition annually before the Commission to determine changes to the current tariff not later than 1st December unless an extension is granted by the Commission upon application.
- (3) APGCL filed the Petition for Annual Performance Review for FY 2013-14 (Petition No. 13/2013) on November 28, 2013 under Section 62 of the Electricity Act, 2003 and Section 5, 6, & 7 of the Assam Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2006.

- (4) APGCL filed a Petition on November 30, 2013 praying for extension of time for submission of the Petition for approval of revised Annual Revenue Requirement (hereinafter called as 'ARR') and Tariff for FY 2014-15 and true-up for FY 2012-13 up to February 28, 2014. The Commission, vide its Order dated December 27, 2013, granted extension to APGCL for filing of Petition for approval of revised ARR and Tariff for FY 2014-15 and true-up for FY 2012-13 up to February 28, 2014.
- (5) APGCL filed the Petition for approval of revised ARR for FY 2014-15 and trueing up for FY 2012-13 (Petition No. 14/2014) on February 27, 2014 under Section 62 of the Electricity Act, 2003, and Regulation 5, 6, & 7 of the Assam Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2006.
- (6) The Commission, on preliminary scrutiny, found that the above Petitions filed by APGCL were incomplete in some material information. Therefore, additional clarifications on the Petition were sought for from APGCL from time to time and replies received. Although, additional clarifications continued to be submitted, the Commission in the larger interest of the consumers as well as the Petitioner and abiding by the statutory obligation of tariff determination, admitted the Petitions on June 11, 2014. It would be pertinent to mention here that the Petitions filed by APGCL on November 28, 2013 (Petition No. 13/2013) and February 27, 2014 (Petition No. 14/2014) were clubbed together for final disposal.
- (7) Although, the Petitions filed by APGCL were admitted on June 11, 2014, the Commission continued to receive additional clarifications from APGCL on various aspects as late as September 01, 2014.
- (8) After the Petitions were admitted, in accordance with Section 64 of the Electricity Act 2003, the Commission directed APGCL to publish a summary of the ARR and Tariff filings in local dailies to ensure due public participation. A copy of the Petitions and other relevant documents were also made available to consumers and other interested parties at the offices of APGCL. A copy of the Petitions was also made available on the website of the Commission and APGCL.
- (9) Accordingly, a Public Notice was issued by APGCL inviting objections/suggestions from stakeholders on or before August 11, 2014. The notice was published in eleven (11) newspapers of the State on July 19, 2014.

- (10) The Commission received four (4) objections on the Petitions filed by APGCL. The Hearing was held at Karmabir Nabin Chandra Bordoloi Indoor Stadium, Sarusajai, Guwahati - 781034 on September 11, 2014.
- (11) The details are discussed in the relevant section of this Tariff Order. The Petitions were also discussed in the meeting of the State Advisory Committee (constituted under Section 87 of the Electricity Act, 2003), convened on August 12, 2014 held at NEDFi House, Dispur, Guwahati.
- (12) The Commission, now in exercise of its powers vested in it under Sections 61 and 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf and taking into consideration the submissions made by the Petitioners, objections and suggestions received from stakeholders and all other relevant materials on record, has carried out true-up for FY 2012-13, Annual Performance Review for FY 2013-14, and determined the revised ARR and Generation Tariff for FY 2014-15, and accordingly, issues this Order making the new tariff effective from December 1, 2014.
- (13) The Commission further directs APGCL to publish a Public Notice 7 days before the implementation of the Order.
- (14) Before parting, it would be worth mentioning that while passing the Tariff Order some delay could not be avoided and the factors attributed to the same have been stated herein before.

Sd/-
(D. Chakravarty)
Member, AERC

Sd/-
(Dr. R.K. Gogoi)
Member, AERC

Sd/-
(N. K. Das)
Chairperson, AERC

1 Introduction

1.1 CONSTITUTION OF THE COMMISSION

- 1.1.1. The Assam Electricity Regulatory Commission (hereinafter referred to as the AERC or the Commission) was established under the Electricity Regulatory Commissions Act, 1998 (14 of 1998) on February 28, 2001.
- 1.1.2. AERC came into existence in August 2001 as a one-man Commission. Considering the multidisciplinary requirements of the Commission, it was made a multi-Member Commission comprising of three Members (including Chairperson) from January 27, 2006. The Commission started functioning as a multi-Member Commission on the joining of two Members from February 1, 2006.
- 1.1.3. The Commission is mandated to exercise the powers conferred under Section 181 of the Electricity Act, 2003 (36 of 2003) (hereinafter referred to as the Act) and to exercise the functions conferred on it under Section 86 of the Act from June 10, 2003.

1.2 TARIFF RELATED FUNCTIONS OF THE COMMISSION

- 1.2.1. Under Section 86 of the Act, the Commission inter-alia has the following tariff related functions:
- (a) to determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be within the State;
 - (b) to regulate electricity purchase and procurement process of distribution utilities including the price at which the electricity shall be procured from the generating companies, licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
 - (c) to facilitate intra-State transmission and wheeling of electricity;
 - (d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purpose of this Act.
- 1.2.2. Under Section 61 of the Act in the determination of tariffs, the Commission is to be guided by the following:
- (a) The principles and methodologies specified by the Central Commission for

determination of the tariff applicable to generating companies and transmission licensees;

- (b) The electricity generation, transmission, distribution and supply are conducted on commercial principles;
- (c) The factors, which would encourage competition, efficiency, economical use of the resources, good performance, Optimum investments, and other matters which the State Commission considers appropriate for the purpose of this Act;
- (d) The interests of the consumers are safeguarded and at the same time, the consumers pay for the use of electricity in a reasonable manner;
- (e) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency and also gradually reduces cross subsidies;
- (f) The National Electricity Plans formulated by the Central Government including the National Electricity Policy and Tariff Policy.

1.2.3. In accordance with the provisions of the Act, the Commission shall not show undue preference to any consumer of electricity in determining the tariff, but may differentiate according to the consumers load factor, power factor, voltage, total consumption of energy during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required. (Section 62 of the Act).

1.2.4. If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall pay the amount in advance to compensate the person affected by the grant of subsidy in the manner the Commission may direct as a condition for the licence or any other person concerned to implement the subsidy provided by the State Government (Section 65 of the Act).

1.3 BACKGROUND AND BRIEF HISTORY

This Order relates to Petition No. 13 of 2013 and Petition No. 14 of 2014 filed by APGCL before the Commission for determination of APR for FY 2013-14 and true-up for FY 2012-13 and approval of revised ARR and generation tariff for FY 2014-15 for sale of electricity to APDCL. APGCL is one of the successor entities of the erstwhile ASEB and owns and operates the Generating Stations previously owned by ASEB. APGCL started functioning as a separate entity from December 10, 2004 as per the

Assam Electricity Reforms First Transfer Scheme, which was notified by the Government of Assam vide PEL. 151/2003/Pt/165 dated December 10, 2004. The Government of Assam, vide notification No. PEL.151/2003/Pt/349 dated August 16, 2005 issued Orders to give effect to the reorganization of the Assam State Electricity Board and finalization of the provisional transfers effected as per the provisions of the Electricity Act, 2003 and First Transfer Scheme. The Government of Assam notified the opening Balance Sheet, which was updated and finalized based on the Audited Accounts of ASEB as on March 31, 2005 under Notification No: PEL.114/2006/120 of August 29, 2007.

The Commission notified the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 vide No. AERC.2005/19 dated April 28, 2006, which was published in the Assam Gazette on May 24, 2006. It was stated that it shall come into force from the date of their publication in the Official Gazette of the Govt. of Assam, i.e., w.e.f May 24, 2006. As per Regulation 1.2(d), the Regulations shall apply to all Generating Companies operating in the State of Assam, which are not subject to the jurisdiction of the CERC, which include Generating Companies owned or controlled by Central Government or Generating Companies with a composite scheme of generation and sale in more than one State.

As per Regulation 5.3, the tariff will be determined on the basis of the principles enunciated for a period of five years commencing from April 1, 2006 for generation. As per Regulation 6.5, tariff in respect of a Generating Company under the Regulations shall be determined station-wise and the Generating Company shall submit separate calculations in respect of each generating station.

1.3.1. Assam Power Generation Corporation Limited

The Assam Power Generation Corporation Limited, hereinafter named as APGCL, is the successor corporate entity of erstwhile ASEB formed pursuant to the notification of the Government of Assam, notified under sub-sections (1), (2), (5), (6) and (7) of Section 131 and Section 133 of the Electricity Act 2003 (Central Act 36 of 2003), for the purpose of transfer and vesting of functions, properties, interests, rights, obligations and liabilities, along with the transfer of personnel of the Board to successor entities. Further, APGCL is a Company incorporated with the main object of generation of electricity in the State of Assam and is a Generating Company under the various provisions of the Electricity Act, 2003.

1.3.2. Commission's Orders for the first Control Period

APGCL filed the MYT Petition for the first Control Period for determination of Annual Revenue Requirement for FY 2010-11, FY 2011-12 and FY 2012-13 on February 8, 2010 in accordance with the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

The Commission, after following the due procedure, issued the MYT Order for the Control Period from FY 2010-11 to FY 2012-13 on May 16, 2011.

APGCL filed the Petition for approval of Annual Performance Review for FY 2011-12 and true-up for FY 2009-10 and FY 2010-11 on June 06, 2012. APGCL further filed the Petition for approval of revised Annual Revenue Requirement and determination of generation tariff for FY 2012-13 on September 28, 2012. Thereafter, the Commission passed the Tariff Order on true-up for FY 2009-10 and FY 2010-11, Annual Performance Review for FY 2011-12 and determination of revised ARR and generation tariff for FY 2012-13 on February 28, 2013.

1.3.3. Commission's Orders for the second Control Period

APGCL filed the MYT Petition for the second Control Period for determination of Annual Revenue Requirement for FY 2013-14, FY 2014-15 and FY 2015-16 on January 31, 2013, in accordance with the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. Further, APGCL filed the Petition for true-up for FY 2011-12 and Annual Performance Review for FY 2012-13 on March 21, 2013.

The Commission, after following the due procedure, issued the MYT Order for the Control Period from FY 2013-14 to FY 2015-16 on November 21, 2013, along with true-up for FY 2011-12 and APR for FY 2012-13.

1.4 PROCEDURAL HISTORY

APGCL filed the Petition for Annual Performance Review for FY 2013-14 on November 28, 2013. Further, APGCL filed the Petition for approval of true-up for FY 2012-13 and revised ARR and generation Tariff for FY 2014-15 on February 27, 2014.

1.5 ADMISSION OF PETITION AND HEARING PROCESS

1.5.1. The Commission conducted preliminary analysis of the Petitions submitted by APGCL as mentioned above and found that the Petitions were not complete in material particulars. Therefore, additional data and clarifications on the Petitions were sought from APGCL on May 27, 2014 and the requisite clarifications were submitted on June 16, 2014. Although, additional clarifications continued to be submitted, the Commission in the larger interest of the consumers as well as the Petitioner and abiding by the statutory obligation of tariff determination, clubbed together both the Petitions and admitted them on June 11, 2014 and registered the Petition for approval of APR of FY 2013-14 as Petition No. 13/2013 and the Petition for approval of true-up of FY 2012-13 and determination of revised ARR and generation tariff for FY 2014-15 as Petition No. 14/2014.

1.5.2. In accordance with Section 64 of the Electricity Act, 2003, the Commission directed APGCL to publish its application in the abridged form and manner to ensure due public participation.

A Public Notice was published by APGCL inviting objections / suggestions from stakeholders on or before August 11, 2014, which was published in the following 11 newspapers on July 19, 2014.

Date	Newspapers	Language
July 19, 2014	The Assam Tribune	English
	The Sentinel	English
	The Telegraph	English
	Asamiya Pratidin	Assamese
	Ajir Batori	Assamese
	Amar Asom	Assamese
	Janasadharan	Assamese
	Dainik Jugasankha	Bengali
	Dainik Samayik Prasanga	Bengali
	Purbanchal Prahari	Hindi
	Dainik Purvoday	Hindi

1.5.3. The time limit for submitting objections/suggestions was stipulated in accordance with the AERC (Conduct of Business) Regulations, 2004. Moreover, the same were also in line with the time limit given by most of the State Electricity Regulatory Commissions in India, and the time allowed by the Commission in earlier tariff proceedings.

1.5.4. The Commission considered the objections received and sent communication to the objectors to take part in the hearing process for presenting their views in person before the Commission, if they so desired. Also, a comprehensive Notice was published in the following 7 newspapers on September 1, 2014 in Assamese and English language. Accordingly, the Commission scheduled the Hearing in the matter on September 11, 2014 at Karmabir Nabin Chandra Bordoloi Indoor Stadium, Sarusajai, Guwahati- 781034.

Date	Newspapers	Language
September 1, 2014	The Assam Tribune	English
	The Sentinel	English
	Amar Asom	Assamese
	Pratidin	Assamese
	Dainik Janambhumi	Assamese
	Dainik Jugasankha	Bengali
	Purbanchal Prahari	Hindi

1.5.5. All the written representations submitted to the Commission and oral submissions made before the Commission in the hearing and the responses of APGCL have been carefully considered while issuing this Tariff Order. The issues raised by different consumers and consumer groups along with the response of APGCL and views of the Commission are elaborated in Chapter 3 of this Order.

1.5.6. The Commission obtained further clarifications from APGCL, as listed below:

- i) APGCL submitted additional clarifications vide Letter No. APGCL/CGM (G)/MYT/2013-16/232/Part-II/7 dated September 01, 2014.

1.6 STATE ADVISORY COMMITTEE MEETING

The meeting of the State Advisory Committee (constituted under Section 87 of the Electricity Act, 2003) was convened on August 12, 2014 and Members were briefed on the Petitions of APGCL. The minutes of the meeting are appended to this Order as **Annexure - 1**.

2 Summary of ARR and Tariff Petition

APGCL submitted the Petition on November 28, 2013 for approval of APR for FY 2013-14. Further, APGCL submitted the Petition on February 27, 2014 for approval of true-up for FY 2012-13 and revised ARR and generation tariff for FY 2014-15.

2.1 TRUE UP FOR FY 2012-13

The summary of true-up for FY 2012-13 submitted by APGCL is as shown in the Table given below:

Table 2.1: Summary of true-up for FY 2012-13 as submitted by APGCL

(Rs. Crore)

Sl. No.	Particulars	FY 2012-13		
		Approved in the MYT Order for FY 2010-13	Approved in the Tariff Order for FY 2012-13	True-up Petition
A	Fixed Charges			
1	Operation and Maintenance expenses			
1.1	Employee expenses	68.07	69.52	72.11
1.2	Repair and Maintenance expenses	13.81	25.58	20.58
1.3	Administrative and General expenses	3.10	5.66	6.38
2	Interest and Finance Charges	71.11	36.49	42.53
3	Interest on Working Capital	12.68	14.47	18.49
4	Income Tax	5.54	5.54	0.50
5	Depreciation	46.55	38.92	31.52
6	Return on Equity	37.99	37.99	62.64
7	Less: Other Income	5.02	8.99	8.18
8	Total Fixed Charges	253.81	225.18	246.72
B	Fuel Cost	183.08	157.32	364.54
C	Annual Revenue Requirement	436.89	382.50	611.26
D	Revenue from sale of power	-	-	459.66
E	Revenue Gap (+)/Surplus (-)	-	-	151.60

APGCL claimed a revenue gap of Rs. 151.60 Crore for FY 2012-13 and requested the Commission to allow the proposed revenue gap for FY 2012-13 in the ARR for FY 2014-15.

2.2 APR FOR FY 2013-14 AND REVISED ARR AND GENERATION TARIFF FOR FY 2014-15

The summary of APR for FY 2013-14 and revised ARR and generation tariff for FY 2014-15 submitted by APGCL is as shown in the Table given below:

Table 2.2: APR for FY 2013-14 and revised ARR and generation tariff for FY 2014-15 as submitted by APGCL

(Rs. Crore)

Sl. No.	Particulars	FY 2013-14		FY 2014-15	
		Approved in the MYT Order	APGCL APR Petition	Approved in the MYT Order	APGCL Petition
A	Fixed Charges				
1	Operation and Maintenance expenses				
1.1	Employee expenses	78.12	80.00	76.39	86.21
1.2	Repair and Maintenance expenses	14.91	14.91	16.10	17.13
1.3	Administrative and General expenses	5.93	8.45	4.76	8.77
2	Interest and Finance Charges	30.90	36.61	30.31	41.04
3	Interest on Working Capital	18.25	24.62	17.60	34.18
4	Taxes on income	0.93	19.10	0.93	12.76
5	Depreciation	16.35	31.50	29.64	32.61
6	Return on Equity	37.99	62.64	37.99	42.06
7	Less: Other Income	10.99	7.53	12.09	7.98
8	Total Fixed Charges	192.38	270.29	201.64	266.75
B	Fuel Cost	289.45	372.53	275.27	385.52*
C	True up for past years	13.10	-	-	151.60
D	Annual Revenue Requirement	494.94	642.82	476.91	803.87
	Generation Tariff				
E	Power Generation (MU)				
1	Gross Generation	1786.40	1845.23	1954.19	1766.94
2	Auxiliary Consumption	72.63	112.38	77.38	99.13
3	Net Generation	1713.77	1732.85	1876.81	1667.81
F	Generation Tariff (Rs/kWh)				
1	Fixed Cost	1.20	1.56	1.07	2.51
2	Fuel Cost	1.69	2.15	1.47	2.31
3	Tariff	2.89	3.71	2.54	4.82

*Revised vide Reply dated September 01, 2014

APGCL submitted that based on the current position of the generating Units and gas availability from various gas sources, gas pricing, inflation trend, etc., it has projected the ARR for FY 2014-15. APGCL has proposed the ARR of Rs. 803.87 Crore for FY 2014-15, inclusive of proposed revenue gap of Rs. 151.60 for FY 2012-13, as against Rs. 476.91 Crore approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16.

3 Brief Summary of Objections raised, responses of APGCL and Commission's comments

The Commission has received four (4) objections/suggestions on the Petitions filed by APGCL from the following stakeholders:

S. No.	Name of the Stakeholder
1	Assam Branch of Indian Tea Association, Guwahati
2	All Assam SSI Association, Industrial Estate, Guwahati
3	North Eastern Small Scale Industries Association
4	Grahak Suraksha Sanstha

APGCL has submitted its responses to the objections/suggestions from the stakeholders.

The Hearing was held at Karmabir Nabin Chandra Bordoloi Indoor Stadium, Sarusajai, Guwahati- 781034 on September 11, 2014.

A meeting of the State Advisory Committee (SAC) was convened on August 12, 2014 at NEDFi HOUSE, Dispur, Guwahati and members were briefed on the Petitions of APGCL to obtain views of SAC members on the ARR and Tariff proposals of APGCL. The suggestions made by the members of SAC have been duly taken into consideration by the Commission while finalizing the Tariff Order.

The objections/suggestions made by the stakeholders and responses of the Petitioner have been dealt with in this Chapter. The major issues raised by the stakeholders are discussed below along with the response of APGCL and views of the Commission. All the objections/suggestions received related to ARR and Tariff Petition and also those raised during the course of Hearing have been grouped and addressed issue-wise hereunder.

Issue No. 1: Technical Parameters

Objections:

The Assam Branch of Indian Tea Association (ABITA) submitted that in spite of the conservative approach adopted by the Commission for approving the technical parameters for the generating stations of APGCL, the actual technical parameters achieved by the Petitioner for FY 2012-13 indicate poor performance of the plants. The primary reason for the non-achievement of the technical parameters is because of non-implementation of the Renovation & Modernisation schemes as proposed, resulting in frequent forced shut downs. ABITA requested the Commission to obtain the maintenance schedules and activities carried out at NTPS and caution the Petitioner against the repeated forced shutdowns in the plant. ABITA submitted that the non-achievement of the technical parameters is attributable to APGCL and requested the Commission not to allow the same to be passed to the consumers.

Response of APGCL:

APGCL submitted that the actual PLF for FY 2012-13 is higher than the normative PLF specified by the Commission. APGCL submitted that the same was possible on account of timely execution of Renovation and Modernisation works in FY 2012-13 and FY 2013-14.

Comments of the Commission:

The Commission has tried up the technical parameters for FY 2012-13 based on the prudence check of the submissions of APGCL. The Commission has specified the normative PLF for the generating stations of APGCL keeping in view of the vintage of the Units, availability of gas and maintenance schedule required for the upkeep of the Units. Although the recovery of the fixed costs of APGCL is dependent on the availability rather than the PLF of its stations, higher PLF is desirable as it leads to optimal utilisation of capital investment incurred, and also supports APDCL by making available more power from within the State, which will otherwise have to be procured from other costlier sources in the electricity markets. The Commission observes that the actual PLF of the thermal generating stations of APGCL is higher than the normative PLF for FY 2012-13. The Commission had directed APGCL to obtain prior approval of the capital investment for the Renovation & Modernisation schemes to be implemented by APGCL. Further, the Commission, in its MYT Order for FY 2013-14 to FY 2015-16 dated November 21, 2013 has already directed APGCL to expedite all the Renovation & Modernisation schemes required for the optimal performance of its Stations.

Issue No. 2: Generation from the Stations

Objections:

The All Assam Small Scale Industries Association (AASSIA) submitted that there has not been significant achievement in generation from APGCL's stations as submitted in the true-up Petition for FY 2012-13 compared to the generation quantum approved by the Commission in the MYT Order for FY 2010-11 to FY 2012-13.

The North Eastern Small Scale Industries Association (NESSIA) submitted that the new and on-going projects should be completed on time. The capacity of 60 MW Chandrapur TPS should be increased to 200 MW so that the power requirement in Guwahati City can be met from this station. NESSIA submitted that after the commissioning of Unit 2 of Palatana Project and Bongaigaon Project, the power shortage can be mitigated.

Grahak Suraksha Sanstha (GSS) submitted that there has been no addition of generation capacity in the last several years. The construction of Dhansiri SHEP of 20 MW capacity was started in 1988 but has not yet been completed. The power shortage cannot be overcome without State-run projects and efforts need to be made in this regard.

Response of APGCL:

APGCL submitted that the performance of its generating stations is in line with the targets approved by the Commission. Due to constant efforts undertaken by APGCL, the performance of the Stations has improved, which is evident from record PLF of 96.36% for NTPS on March 1, 2014 and record PLF of 95.43% for LTPS on May 12, 2014 indicating that these Stations could perform at par with national average PLF, if sufficient gas is available.

Comments of the Commission:

The Commission has taken note of the submissions of the Petitioner. The Commission advises APGCL to take preventive measures while implementing new and on-going projects to avoid delays so as to ensure completion within the stipulated time. The Commission acknowledges that the availability of adequate generation capacity within the State would reduce the dependence on the import of power and the inherent transmission constraints. The Commission advises APGCL to

make all out efforts for maximum generation from its existing Stations.

The Commission understands that the implementation of Dhansiri SHEP was suspended in 1996 and it is planned to be awarded for implementation through tariff based competitive bidding.

Issue No. 3: Auxiliary Energy Consumption

Objections:

ABITA submitted that the actual Auxiliary Energy Consumption for FY 2012-13 and revised estimate for FY 2013-14 and FY 2014-15 for both LTPS and NTPS as submitted by the Petitioner are higher than the approved norms. ABITA submitted that the Petitioner has not taken necessary steps to reduce the Auxiliary Energy Consumption in compliance to the directions of the Commission. ABITA submitted that the reasons for higher Auxiliary Energy Consumption submitted by the Petitioner should not be taken into consideration and requested the Commission to consider the Auxiliary Energy Consumption as per the norms for computation of Energy Charge.

Response of APGCL:

APGCL submitted that after successful calibration of energy meters of LTPS, the Auxiliary Energy Consumption has reduced to 8.8% in FY 2013-14 from 11.5% in FY 2012-13. The distribution feeders of NTPS 132 kV sub-station are being shifted and the Auxiliary Energy Consumption of NTPS is expected to be 4.5% from the current level of 5.5% after the completion of shifting works. APGCL further submitted that the recommendations of the energy audit Report of M/s National Productivity Council (NPC) are being taken up to the extent possible. Also, an energy auditor is being engaged to study the methods of reduction of Auxiliary Energy Consumption. APGCL submitted that it had requested the Commission to revise the norms based on the actual performance of its stations. APGCL submitted that the loss in fuel cost due to higher Auxiliary Energy Consumption is absorbed by the Company and is not passed on to the consumers.

Comments of the Commission:

The Commission, in this Order, after taking into consideration the norms specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, has approved the norms for Auxiliary Energy Consumption for APGCL's stations in

true-up for FY 2012-13, APR for FY 2013-14 and revised ARR and generation tariff for FY 2014-15, at the same levels approved in the MYT Order for APGCL and as revised in the Review Order.

Issue No. 4: Station Heat Rate

Objections:

ABITA submitted that discrepancies have been observed in the Station Heat Rate (SHR) submitted by the Petitioner at different places in the Petition. For instance, the actual SHR for FY 2012-13 submitted for NTPS has been stated as 3688 kcal/kWh in the Petition whereas in the Format, the SHR has been indicated as 3698 kcal/kWh.

ABITA submitted that the actual SHR submitted by the Petitioner for FY 2012-13 is higher than the approved value and the increase had been due to fluctuations in gas supply and intermittent under-loading and outages. The higher SHR indicates the inefficiency in the operation of the Station and the inefficiencies arise out of inadequate Renovation & Modernisation activity. ABITA requested the Commission to consider the norm as per the AERC Tariff Regulations for the purpose of true-up of FY 2012-13 and APR for FY 2013-14 and not allow any inefficiency to be passed on to the consumers.

ABITA submitted that the average SHR for the past 3 years is lower than the SHR recommended by the study conducted by Indian Institute of Technology (IIT), Guwahati. ABITA submitted that the SHR recommended in the Technical Consultant's Report is based on the premise that inadequate gas pressure results in degradation of SHR, which is inappropriate, as the responsibility to maintain adequate gas quantity and pressure rests with APGCL. ABITA requested the Commission to direct APGCL to undertake proper study at normal working conditions. In comparison to the SHR norm as per the CERC Tariff Regulations for old Stations, the SHR recommended by IIT, Guwahati is on the higher side. ABITA requested the Commission to approve the SHR for FY 2014-15 in accordance with the AERC Tariff Regulations, 2006 and as approved in the MYT Order for FY 2013-14 to FY 2015-16.

Response of APGCL:

APGCL submitted that the actual SHR for FY 2012-13 for NTPS and LTPS is comparable with the design SHR of these Stations. APGCL submitted that the SHR

submitted in Table 2 of the Petition is on Net Calorific Value (NCV) basis and the SHR submitted on Page 20 of the Petition is on Gross Calorific Value (GCV) basis. APGCL submitted that it had already submitted to the Commission, a study report conducted by IIT, Guwahati on the SHR of NTPS and LTPS. APGCL added that the study report is available on its website www.apgcl.org.

Comments of the Commission:

In this Order, the Commission has approved the SHR norms as specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. However, based on the study of the Report submitted by IIT Guwahati and the hearing on the matter, the Commission has, by publishing in newspapers and posting on its website, the draft amendment to the normative Station Heat Rate and Auxiliary Energy Consumption as specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, obtained the views and comments of stakeholders. The Commission is now in the process of notifying the said amendment after taking into consideration all the comments and suggestions of the stakeholders on the proposed amendments.

Issue No. 5: Fuel Cost

Objections:

ABITA submitted that the actual fuel cost as per the audited Annual Accounts for FY 2012-13 is much higher than the fuel cost in accordance with the norms. ABITA requested the Commission to direct the Petitioner to submit adequate information for true-up of fuel cost for FY 2012-13. ABITA submitted that the revised fuel cost for FY 2013-14 as submitted by the Petitioner is due to inferior operational performance vis-a-vis the norms of operation. ABITA requested the Commission not to revise the fuel cost for FY 2013-14 as the fuel price considered by the Commission for FY 2013-14 was considerably higher than the actual fuel price for FY 2011-12 as observed by the Commission in the MYT Order. ABITA submitted that any variation in fuel price shall be allowed to APGCL for recovery through FPPPA.

ABITA submitted that APGCL has considered the calorific value of lean gas from July, 2014 onwards for projecting the fuel cost for FY 2014-15. ABITA submitted that the Commission had approved the fuel cost for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16 considering the available information at that time and hence, revision of the same should not be allowed. ABITA submitted that APGCL

could recover the difference in fuel cost through FPPPA.

Response of APGCL:

APGCL submitted that it has claimed the actual fuel cost for FY 2012-13 as per the audited Annual Accounts and the station-wise fuel bills have also been submitted. APGCL submitted that the revised fuel cost for FY 2013-14 has been estimated considering the actual fuel cost for first 6 months of FY 2013-14 and projecting the fuel cost for remaining 6 months, in accordance with the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. APGCL submitted that the gas price, which was revised with effect from June, 2010 was considered in the projections of MYT for FY 2013-14 to FY 2015-16.

Comments of the Commission:

The Commission has approved the fuel cost in the true-up for FY 2012-13 and the APR for FY 2013-14 based on the approved performance parameters and actual fuel price as per the fuel bills submitted by the Petitioner. The Commission has considered the actual average fuel price for the months of April, 2014 to June, 2014 for projecting the fuel cost for FY 2014-15. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 6: Employee expenses

Objections:

ABITA submitted that the actual employee expenses for FY 2012-13 as submitted by the Petitioner are higher than that approved by the Commission in the APR Order for FY 2012-13. The employee expense is a controllable item under the MYT regime and therefore, any gain or loss on account of higher or lower actual employee expenses should be borne by the Petitioner. ABITA requested the Commission not to revise the employee expenses for FY 2012-13 and FY 2013-14 from that approved by the Commission.

ABITA submitted that the O&M expenses are a controllable item and if it is revised each year based on actual, the concept of MYT framework shall be defeated. ABITA requested the Commission to approve the O&M expenses for FY 2014-15 as approved in the MYT Order for FY 2013-14 to FY 2015-16.

Response of APGCL:

APGCL submitted that it has claimed the actual employee expenses for FY 2012-13 as per the audited Annual Accounts in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The employee expenses for FY 2013-14 have been estimated based on the actual employee expenses for first 6 months of FY 2013-14 and projection for the remaining 6 months. APGCL submitted that the actual employee expenses are higher than the approved expenses on account of higher DA sanctioned, which is beyond its control.

Comments of the Commission:

The Commission has approved the employee expenses in the true-up for FY 2012-13 and the APR for FY 2013-14 after due prudence check of the actual expenses in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The detailed analysis is given in the respective Chapters of this Order. The Commission has approved the employee expenses for FY 2014-15 by considering the appropriate growth rates over the employee expenses approved for FY 2012-13 after truing up.

Issue No. 7: Repair and Maintenance (R&M) expenses**Objections:**

ABITA submitted that the R&M expenses should not be allowed on actual basis but should be based on past years' actual expenses after excluding one-time variations. ABITA requested the Commission not to revise the R&M expenses for FY 2013-14 from that approved in the MYT Order.

Response of APGCL:

APGCL submitted that it has claimed the actual R&M expenses for FY 2012-13 as per the audited Annual Accounts. APGCL submitted that procurement of spares for the major overhauling and repairing of the Units require some time and hence, the liability/expenditure towards some part of R&M works for FY 2012-13 had been included in FY 2013-14. APGCL submitted that the R&M expenses projected for FY 2013-14 are exclusive of the expenditure towards major overhauling works of LTPS Unit 2 and Unit 7 and KLHEP Unit 2, as the same were not considered by the Commission while approving the R&M expenses in the MYT Order for FY 2013-14 to FY 2015-16.

Comments of the Commission:

The Commission has approved the R&M expenses in the true-up for FY 2012-13 and the APR for FY 2013-14 after due prudence check of the actual expenses in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and as approved in the Review Order dated July 07, 2014. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 8: Administration and General (A&G) expenses**Objections:**

ABITA submitted that the A&G expenses approved by the Commission for FY 2012-13 in the APR Order for FY 2012-13 were based on the actual expenses for FY 2011-12 and hence, the same does not require any revision. ABITA requested the Commission to approve the same amount of A&G expenses in the true-up for FY 2012-13. ABITA submitted that the A&G expenses claimed for FY 2013-14 are higher than that approved by the Commission and should not be allowed. Further, the Petitioner has submitted the A&G expenses for FY 2013-14 as Rs. 6.42 Crore in Table 8 of the Petition and as Rs. 8.45 Crore in Table 14 of the Petition.

Response of APGCL:

APGCL submitted that it has claimed the actual A&G expenses for FY 2012-13 as per the audited Annual Accounts in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The A&G expenses for FY 2013-14 have been estimated based on the actual expenses for first 6 months of FY 2013-14 and projections for the remaining 6 months. Further, APGCL clarified that the A&G expense submitted in Table 14 of the Petition is inclusive of energy bill raised by APDCL.

Comments of the Commission:

The Commission has approved the A&G expenses in the true-up for FY 2012-13 and the APR for FY 2013-14 after due prudence check of the actual expenses in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 9: Capital expenditure**Objections:**

ABITA submitted that the Petitioner has not submitted the actual station-wise capital expenditure details for FY 2012-13. ABITA requested the Commission to direct the Petitioner to submit the details of capital investment and capitalisation for FY 2012-13. ABITA submitted that the Petitioner has not submitted the actual capital investment details for FY 2013-14 and requested the Commission to not allow the financing of capital investment in the absence of scheme-wise details. ABITA requested the Commission not to revise the Investment Plan for FY 2014-15 in the absence of any scheme-wise details and funding for the same.

Response of APGCL:

APGCL submitted that in reply to the Commission's queries, it has submitted the details of capital investment and capitalisation for FY 2012-13 and FY 2013-14. APGCL submitted that the detailed schemes with Detailed Project Report (DPR) for the proposed investments have been submitted to GoA for Annual Plan for FY 2013-14 and funds have been released for execution of the schemes. The quarterly progress report on implementation of Capital Investment Schemes has been submitted to the Commission.

Comments of the Commission:

The Commission has approved the capitalisation in the true-up for FY 2012-13 and the APR for FY 2013-14 based on scheme-wise analysis after due prudence check of audited Annual Accounts for FY 2012-13 and the submissions of the Petitioner. The Commission has reduced the expenses towards on-going projects as capitalised expenses under the respective heads of ARR. The capitalisation considered for FY 2014-15 has been revised accordingly. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 10: Return on Equity (RoE)**Objections:**

ABITA submitted that the Return on Equity claimed by the Petitioner for FY 2012-13 and FY 2013-14 has not been detailed in the Petition and requested the Commission to approve Return on Equity as approved in the APR Order for FY 2012-13. The Petitioner has claimed RoE @ 15.5% while the AERC Tariff Regulations, 2006 specify RoE @ 14%. ABITA requested the Commission to approve the Return on

Equity for FY 2014-15 at the Rate of Return on Equity as considered by the Commission in the MYT Order for FY 2013-14 to FY 2015-16.

Response of APGCL:

APGCL submitted detailed computations of RoE by considering the Rate of Return on Equity of 15.5% in accordance with CERC (Terms and Conditions of Tariff) Regulations, 2009.

Comments of the Commission:

The Commission has approved RoE in the true-up for FY 2012-13, APR for FY 2013-14, and revised ARR for FY 2014-15 considering the approved equity base for APGCL and in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, which allows RoE @14%. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 11: Depreciation

Objections:

ABITA submitted that the Petitioner has not submitted the computations of depreciation for FY 2012-13 in the Petition. The depreciation on assets created out of grants and capital subsidies have not been excluded in line with the AERC Tariff Regulations, 2006. ABITA requested the Commission to approve the depreciation for FY 2012-13 and FY 2013-14 in accordance with AERC Tariff Regulations, 2006. ABITA submitted that as there is no change in the capitalisation approved for the Control Period, the depreciation for FY 2014-15 should be considered as approved in the MYT Order for FY 2013-14 to FY 2015-16.

Response of APGCL:

APGCL submitted that in reply to the Commission's queries, it has submitted the computations of depreciation. The grants received from GoA has been considered as promoter's contribution in line with the communication received from GoA.

Comments of the Commission:

The Commission has approved depreciation in the true-up for FY 2012-13, APR for FY 2013-14, and revised ARR for FY 2014-15 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, which do not allow

depreciation on grant funded assets. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 12: Interest and Finance Charges

Objections:

ABITA submitted that the actual interest expenses for FY 2012-13 as submitted by the Petitioner are much higher than that approved by the Commission. The Petitioner has not submitted the compliance to the Commission's directive regarding creation of GPF fund. ABITA requested the Commission not to allow the interest expenses on GPF and the Government Bonds for FY 2012-13. ABITA submitted that as no major capitalisation has happened during FY 2012-13 and FY 2013-14, the interest expenses claimed by APGCL for the respective years is not justified. ABITA submitted that as there is no change in capital expenditure or capitalisation for FY 2014-15, the interest on loan should be considered as approved in the MYT Order for FY 2013-14 to FY 2015-16.

Response of APGCL:

APGCL submitted that the matter of inclusion of APGCL and its GPF Rules & Regulations under the Provident Fund Act, 1925 is pending with the GoA and it has been pursuing the matter vigorously. The State Government Loans have been availed for the Capital Investment Schemes and the interest and finance charges on the same have been claimed as per the audited Annual Accounts.

Comments of the Commission:

The Commission has approved the interest and finance charges in the true-up for FY 2012-13, APR for FY 2013-14, and the revised ARR for FY2014-15 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 13: Prior period items

Objections:

ABITA submitted that although the Petitioner has submitted the prior period items as per the audited Annual Accounts for FY 2012-13, the same need to be evaluated adequately. ABITA requested the Commission to check the relevance of each item booked under the prior period items and allow appropriate adjustment on account of the same.

Response of APGCL:

APGCL submitted that the Commission, in the previous Tariff Orders, had disallowed prior period items and hence, it has not claimed the prior period items for true-up of FY 2012-13.

Comments of the Commission:

The Commission has approved the prior period charges and income in the true-up for FY 2012-13 and the APR for FY 2013-14 after due prudence check of the submissions of the Petitioner and audited Annual Accounts for FY 2012-13. The detailed analysis is given in the respective Chapters of this Order.

Issue No. 14: Revival of shutdown Stations**Objections:**

AASSIA sought the status of revival of shutdown projects, viz., Chandrapur TPS and Bongaigaon TPS. AASSIA submitted that it has been proposed to procure coal from Indonesia, after revival, for Chandrapur TPS. The procurement of coal should be in a transparent manner and its impact on FPPPA should be taken into consideration.

Response of APGCL:

APGCL submitted that the revival of 60 MW Chandrapur TPS would be implemented by the JV Partner M/s IAPL. The project is awaiting various clearances and approvals like coal linkage, environmental clearance, forest clearance etc.

APGCL submitted that the land under the possession of Bongaigaon TPS was handed over to NTPC for construction of 3 x 250 MW coal based thermal power project.

Comments of the Commission:

The Commission has taken note of the Petitioner's submissions. Bongaigaon TPS has been handed over to NTPC for construction of a coal based thermal power project. APDCL has submitted that it has gathered from NTPC that NTPC expects to commission the first Unit of 250 MW of Bongaigaon TPS by March 2015, and the next two Units of 250 MW each are expected to be commissioned in 2016.

4 Impact of Revised True-up for FY 2011-12

4.1 REVIEW OF TRUE-UP FOR FY 2011-12

The Commission had approved the true-up for FY 2011-12 in the MYT Order for FY 2013-14 to FY 2015-16 dated November 21, 2013. APGCL preferred review of the said Order vide Petition No. 04/2014. The Commission issued the Review Order in Petition No. 04/2014 on July 07, 2014. In the said Order, the Commission has allowed APGCL to claim the amounts admitted for review of true-up for FY 2011-12 in the subsequent Tariff Petition. APGCL has claimed the said amounts along with its Petition for approval of revised ARR and tariff for FY 2014-15. The Commission's analysis on each issue admitted for review is elaborated in the subsequent paragraphs.

4.1.1 R&M expenses: Cost of lubricants and consumable stores

The Commission, in its Review Order dated July 07, 2014, ruled as under:

“Since this is an allowable expense, the Commission admits the review on this issue and allows the amount of Rs. 0.83 crore under R&M expenses. APGCL may claim this amount in its next Tariff Petition.”

APGCL has claimed Rs. 0.83 Crore towards the same. The Commission, in this Order, has approved the additional expense of Rs. 0.83 Crore towards the R&M expenses for FY 2011-12 on account of cost of lubricants and consumable stores.

4.1.2 R&M expenses: Expenses towards major overhauling of KLHEP

The Commission, in its Review Order dated July 07, 2014, ruled as under:

“In view of the above, the Commission has reconsidered this issue, and allowed the balance Repair & Maintenance expenses of Rs. 10.91 crore in this Order. APGCL may claim this amount in its next Tariff Petition.”

APGCL has claimed Rs. 10.91 Crore towards the same. The Commission, in this Order, has approved the additional expense of Rs. 10.91 Crore towards the R&M expenses for FY 2011-12 on account of expenses towards major overhauling of KLHEP.

4.1.3 Income Tax

The Commission, in its Review Order dated July 07, 2014, ruled as under:

“Hence, the Commission admits the review on this issue and allows the amount of Rs. 0.29 crore towards income tax. APGCL may claim this amount in its next Tariff Petition.”

APGCL has claimed Rs. 0.29 Crore towards the same. The Commission, in this Order, has approved the additional expense of Rs. 0.29 Crore towards the Income Tax for FY 2011-12.

4.1.4 Interest on GoA Loan and Public Bonds

The Commission, in its Review Order dated July 07, 2014, ruled as under:

“Hence, the Commission admits the review on this issue. APGCL may claim the additional amount of interest on the amount of outstanding State Government loan for FY 2011-12 and loan taken during FY 2011-12 corresponding to capital expenditure, along with detailed calculation and reconciliation including loan repayment and closing balance of loan, average interest rate, etc., in its next Tariff Petition.

The Commission had directed APGCL to claim additional interest on the amount of GoA Loan for FY 2011-12 along with detailed calculations. APGCL has submitted the computation of Interest on GoA Loan for FY 2011-12. From the computations submitted by APGCL, the Commission observed that it has paid penal interest towards GoA Loan in FY 2011-12, which is not allowable. The Commission, in this Order, has approved the Interest on GoA Loan by considering the loan balances as approved in the true-up for FY 2011-12 and the interest rate as submitted by APGCL. The Commission has considered the interest on Public Bonds as per the audited Annual Accounts for FY 2011-12. The interest on GoA Loan and Public Bonds as claimed by APGCL and approved by the Commission for FY 2011-12 is as shown in the Table given below:

Table 4.1: Interest on GoA Loan and Public Bonds for FY 2011-12**(Rs. Crore)**

Particulars	Claimed by APGCL	Approved by the Commission
Interest on GoA Loan	8.96	8.46
Interest on Public Bonds	1.15	1.15
Total	10.11	9.61

4.1.5 Incentive for Secondary Energy Generation for FY 2011-12

The Commission has considered the incentive for secondary energy generation for FY 2011-12 as a part of revenue from sale of power in the revenue side true-up. APGCL submitted that the secondary energy generation has been only possible because of improved performance and if the incentive on secondary energy is not included in the ARR for FY 2011-12, it would not be able to retain the inbuilt incentive. The Commission is of the view that the same has to be considered on the expense side also, since, this is an incentive to the generating company for generation in excess of design energy. The Commission, in this Order, has considered the incentive for secondary energy generation for FY 2011-12 in the expense side true-up in the review of true-up for FY 2011-12.

4.1.6 Interest on Working Capital

The Commission, in this Order, has revised the interest on working capital for FY 2011-12, on account of the revised expenses as detailed above.

4.1.7 Summary of Review of true-up for FY 2011-12

The summary of revised true-up for FY 2011-12 approved by the Commission, is as shown in the Table given below:

Table 4.2: Summary of Review of True-up for FY 2011-12**(Rs. Crore)**

Sl. No.	Particulars	Trued up in the Order dated 21.11.2013	Revised true-up
	Income		
1	Revenue from Sale of power	433.96	433.96
2	Revenue from Subsidies & Grants		

Sl. No.	Particulars	Trued up in the Order dated 21.11.2013	Revised true-up
3	Other Income	9.08	9.08
4	Total Revenue (A)	443.04	443.04
	Expenditure		
1	Cost of Fuel	273.56	273.56
2	Employee Cost	65.76	65.76
3	R&M Expenses	12.78	24.52
4	A&G Expenses	5.33	5.33
5	Depreciation Charges	31.07	31.07
6	Interest & Finance charges	9.47	19.08
7	Interest on working capital	14.96	15.57
8	Prior Period Expenses/(Charges)	0.00	0.00
9	Provision for Tax/Income tax paid	0.00	0.29
10	Return on Equity	37.99	37.99
	Total Revenue Requirement	450.92	473.17
11	Add: Incentive for generation for FY 2011-12	5.22	5.22
12	Add: Incentive for Secondary Energy generation for FY 2011-12	0.00	5.02
13	Gross expenditure	456.14	483.41
14	Net Revenue Deficit	13.10	40.37
	Net impact		27.26

The impact of review of true-up for FY 2011-12 as approved by the Commission is Rs. 27.26 Crore. The Commission has adjusted the same in the ARR for FY 2014-15.

5 Truing up for FY 2012-13

5.1 METHODOLOGY FOR TRUING UP

The Commission approves the cost parameters through approval of the Annual Revenue Requirement at the beginning of the year, keeping in view the data available at that point of time. The cost approvals for each of the items are based on projection of expenses and revenue before beginning of the year and hence, the projections might vary over the course of the year.

The actual cost/values for certain elements/parameters may vary as against the approved cost during the year due to various controllable and uncontrollable factors. The generating company may end up with higher or lower expenditure, as the case may be, at the end of the year as against the approved cost. In case of actual fixed costs being higher than the approved fixed costs, there is no mechanism during the year to recover the additional fixed costs over and above the approved fixed costs as the tariff for the generating company cannot be amended more than once as per Regulation 5.1 of the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, the abstract of which is provided below:

“No tariff or part of any tariff may ordinarily be amended, more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified in terms of subsection (4) of section 62 of the Act specified in Regulation 9 of these Regulations”

As per Regulation 9 of AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, the recovery of additional cost for fuel and power purchase over and above the cost approved by the Commission is provided on a quarterly basis in accordance with the formula approved by the Commission.

Accordingly, the Commission approved the Fuel and Power Purchase Price Adjustment Formula (FPPPA) and the same was notified on December 28, 2010 as AERC (Fuel and Power Purchase Price Adjustment Formula) Regulations, 2010.

Under the truing up mechanism, APGCL analysed the difference between actual expenditure and the expenditure approved by the Commission and requested for recovery of the previous year's actual expenditure through truing up.

The Commission analyses the actual expenditure for the previous year/years based on the audited Annual Accounts of the generating company and allows/disallows the recovery of the actual expenditure through the present year's tariff, subject to prudence check.

Based on above methodology, APGCL submitted the truing up proposal for FY 2012-13, supported by audited Annual Accounts.

5.2 BACKGROUND

The Commission approved the ARR and Tariff for FY 2012-13 in the MYT Order for FY 2010-11 to FY 2012-13 dated May 16, 2011. Further, the Commission vide the Tariff Order dated February 28, 2013 carried out the true-up for FY 2009-10 and FY 2010-11, Review for FY 2011-12 and determined the revised ARR and generation tariff for FY 2012-13. The Commission, vide its Order dated November 21, 2013, approved the ARR and Tariff for the Control Period FY 2013-14 to FY 2015-16.

APGCL submitted the Petition for approval of true-up for FY 2012-13 and revised ARR and generation tariff for FY 2014-15 on February 27, 2014. On scrutiny, it was noticed that the data furnished in respect of truing up for FY 2012-13 was deficient in some respects and the Commission sought further clarification from APGCL, which has been submitted by APGCL. The Commission has carried out the truing up for FY 2012-13 based on the submissions of the Petitioner in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and prudence check.

5.3 TRUE-UP FOR FY 2012-13

5.3.1 Operating Capacity

The operating generation capacity of APGCL for FY 2012-13 is as shown in the Table given below:

Table 5.1: Operating Generation Capacity of APGCL for FY 2012-13

Sl. No.	Station	Operating Capacity (MW)
1	NTPS	119.5
2	LTPS with WHRU	157.2

Sl. No.	Station	Operating Capacity (MW)
3	KLHEP	100.0
Total		376.7

5.3.2 Availability / Capacity Index

In accordance with Regulation 39.1 and Regulation 61.1 of AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, the Target Availability / Capacity Index for recovery of full fixed charges is as shown in the Table below:

Table 5.2: Target Availability / Capacity Index for recovery of full fixed charges

Sl. No.	Station	Target Availability / Capacity Index (%)
1	NTPS	50.00
2	LTPS	50.00
3	KLHEP (Run-of-river)	90.00

The actual Availability / Capacity Index for FY 2012-13 as submitted by APGCL is shown in the Table below:

Table 5.3: Actual Availability / Capacity Index for FY 2012-13 as submitted by APGCL (%)

Sl. No.	Station	Actual Availability / Capacity Index	SLDC Certified
1	NTPS	54.0	54.0
2	LTPS with WHRU	72.9	72.9
3	KLHEP (Run-of-river)	92.5	92.5

In reply to the Commission's query, APGCL submitted the actual Availability / Capacity Index for its stations for FY 2012-13 duly certified by SLDC. The Commission observes that the actual Availability / Capacity Index submitted by APGCL for its stations for FY 2012-13 is in order. It is observed from the above Table that the actual Availability / Capacity Index for FY 2012-13 is higher than the target Availability / Capacity Index specified for recovery of full fixed charges. Hence, **APGCL is eligible to recover the full fixed charges for FY 2012-13.**

As actual Capacity Index of KLHEP of 92.5% is higher than the normative capacity index specified for run-of-the-river generating stations, i.e., 90%, **efficiency incentive is allowed for the Station.**

5.3.3 Plant Load Factor (PLF)

In accordance with Regulation 39.2 of AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, the Target PLF for eligibility for efficiency incentive for NTPS and LTPS, is as shown in the Table below:

Table 5.4: Target PLF for efficiency incentive

Sl. No.	Station	Target PLF (%)
1	NTPS	50.00
2	LTPS	50.00

The PLF approved by the Commission and actuals as submitted by APGCL for FY 2012-13 is shown in the Table below:

Table 5.5: PLF approved by the Commission and actuals as submitted by APGCL for FY 2012-13

Sl. No.	Station	PLF approved in Tariff Order for FY 2012-13 (%)	Actuals for FY 2012-13 as submitted by APGCL (%)
1	NTPS	50.00	50.93
2	LTPS with WHRU	68.00	64.49

Commission's view

In reply to the Commission's query, APGCL submitted the actual gross generation duly certified by SLDC for its stations for FY 2012-13. From the actual gross generation for FY 2012-13 as certified by SLDC, the Commission observes that the actual PLF of APGCL's stations for FY 2012-13 is in order. As the actual PLF for NTPS and LTPS for FY 2012-13 is higher than the target PLF, **efficiency incentive is allowed for FY 2012-13 for these Stations.**

For truing up purposes, the actual PLF achieved are approved, as shown in the Table below:

Table 5.6: PLF approved for truing up for FY 2012-13

Sl. No.	Station	Approved by the Commission for truing up purposes (%)
1	NTPS	50.93
2	LTPS with WHRU	64.49

5.3.4 Auxiliary Energy Consumption

The Auxiliary Energy Consumption approved by the Commission for FY 2012-13 and actuals submitted by APGCL for its Stations for FY 2012-13 is shown in the Table below:

Table 5.7: Auxiliary Energy Consumption for FY 2012-13

Sl. No.	Station	Approved in Tariff Order for FY 2012-13 (%)	Actual for FY 2012-13 as submitted by APGCL (%)
1	NTPS	4.5	5.6
2	LTPS	5.5	11.5
3	KLHEP	0.5	0.5

It is observed that the actual Auxiliary Energy Consumption for NTPS and LTPS is higher than that approved by the Commission. APGCL submitted that the reason for higher Auxiliary Energy Consumption is the actual system loss in the power station switchyard including transformer loss, i.e., net energy sent out to the grid at the interface point. In this regard, the Commission asked APGCL to submit the break-up of Auxiliary Energy Consumption including the details of various auxiliaries and the system loss. APGCL submitted the break-up of Auxiliary Energy Consumption for NTPS and LTPS as shown in the Table given below:

Table 5.8: Break-up of Auxiliary Energy Consumption submitted by APGCL for FY 2012-13

Sl. No.	Particulars	LTPS		NTPS	
		MU	%	MU	%
1	Gross Generation	888.08	-	533.17	-
2	Unit Auxiliary Energy Consumption	1.59	0.2%	16.70	3.1%
3	Station Auxiliary Energy Consumption	59.13	6.7%		
4	Transformer loss	41.19	4.6%	13.33	2.5%
5	Total AEC	101.91	11.5%	30.03	5.6%

Commission's view

It is observed from the above table that the station Auxiliary Energy Consumption and transformer losses are significantly high for LTPS and NTPS, which are gas based generating stations. In this regard, the Commission in the previous Tariff Orders, has already directed APGCL to carry out the energy audit of both the gas thermal Stations, viz., NTPS and LTPS, and take necessary steps to reduce the Auxiliary Energy Consumption to the required levels. Accordingly, APGCL vide letter dated May 03, 2013, submitted the energy audit Report of NTPS prepared by National Productivity Council (NPC). The Commission asked APGCL to submit the steps taken to implement the recommendations of the energy audit Report to reduce the Auxiliary Energy Consumption to the normative levels. APGCL submitted the action taken against the recommendations of the energy audit Report of NPC along with other additional measures including the measures being taken for handing over the transformer feeders at LTPS to AEGCL and APDCL.

The Commission has taken note of the submissions of APGCL. The Commission is of the view that the transformer loss is the major contributor for higher Auxiliary Energy Consumption. APGCL submitted that with regard to handing over the transformer feeders at LTPS switchyard, it was decided in the meeting held on May 05, 2012 between the officials of APGCL, AEGCL, and APDCL, to take necessary action to hand over the transformer feeders to APDCL and the process is in progress. APGCL submitted that with regard to handing over the transformer feeders at NTPS switchyard, it was decided in the meetings held on August 02, 2013 and August 16, 2013 between the officials of APGCL, AEGCL and APDCL, to formulate a

detailed transfer scheme. APGCL submitted that vide its letters dated March 31, 2014 and August 27, 2014, it had requested AEGCL to complete the process at the earliest.

The Commission is of the view that there is an undue delay in the process of transfer of transformer feeders. **The Commission directs APGCL to expedite the transfer of transformer feeders within 3 months from the date of issue of this Order and submit the status on the same to the Commission. The Commission directs APGCL to make sincere efforts to implement the measures to reduce the Auxiliary Energy Consumption to the normative levels.**

Accordingly, in this Order, **the Commission has approved the Auxiliary Energy Consumption same as approved in the Tariff Order FY 2012-13**, as shown in the Table below:

Table 5.9: Auxiliary Energy Consumption approved for truing up for FY 2012-13

Sl. No.	Station	Approved by the Commission for truing up purposes (%)
1	NTPS	4.50
2	LTPS with WHRU	5.50
3	KLHEP	0.50

5.3.5 Gross Generation and Net Generation

The station-wise gross generation and net generation approved by the Commission for FY 2012-13 and actuals as submitted by APGCL is shown in the Table below:

Table 5.10: Gross Generation and Net Generation for FY 2012-13 (MU)

Sl. No.	Station	Approved in Tariff Order for FY 2012-13		Actuals for FY 2012-13 as submitted by APGCL	
		Gross	Net	Gross	Net
1	NTPS	525.25	501.61	533.17	503.14
2	LTPS	940.71	888.97	888.08	786.17
3	Total Thermal	1465.96	1390.58	1421.25	1289.31
4	KLHEP	333.94	332.27	344.02	342.30
5	Total APGCL	1799.90	1722.86	1765.26	1631.60

In reply to the Commission's query, APGCL submitted the actual gross generation and net generation duly certified by SLDC for its stations for FY 2012-13. The Commission observes that the actual gross generation and net generation, as submitted by APGCL, is in order. The Commission has considered the actual gross generation as submitted by APGCL and certified by SLDC. The Commission has approved the net generation based on the approved Auxiliary Energy Consumption. The gross generation and net generation approved by the Commission for FY 2012-13 is shown in the Table below:

Table 5.11: Gross and Net Generation approved for truing up for FY 2012-13

(MU)

Sl. No.	Station	SLDC Certified		Approved by the Commission	
		Gross	Net	Gross	Net
1	NTPS	533.17	503.14	533.17	509.18
2	LTPS with WHRU	888.08	786.19	888.08	839.23
3	Total Thermal	1421.25	1289.33	1421.25	1348.41
4	KLHEP	344.02	342.30	344.02	342.30
5	Total APGCL	1765.26	1631.62	1765.26	1690.71

5.3.6 Gross Station Heat Rate (GSHR)

The Gross Station Heat Rate approved by the Commission and the actuals as submitted by APGCL for FY 2012-13 is shown in the Table below:

Table 5.12: Gross Station Heat Rate for FY 2012-13

(kcal/kWh)

Sl. No.	Station	Approved in Tariff Order for FY 2012-13	Actual for FY 2012-13 as submitted by APGCL
1	NTPS	3266	4093
2	LTPS with WHRU	2870	3066

It is observed that the actual GSHR for NTPS and LTPS for FY 2012-13 is significantly higher than that approved by the Commission. APGCL submitted that in compliance to the Commission's directive, it had appointed IIT, Guwahati for conducting the study on actual position of its stations with regard to GSHR issues and the report was submitted to the Commission in November, 2013. APGCL

submitted that the actual GSHR for NTPS is line with the recommendations of IIT, Guwahati.

Commission's view

Based on the study of the Report submitted by IIT Guwahati and the hearing on the matter, the Commission has, by publishing in newspapers and posting on its website, the draft amendment to the normative Station Heat Rate and Auxiliary Energy Consumption as specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, obtained the views and comments of stakeholders. The Commission is now in the process of notifying the said amendment after taking into consideration all the comments and suggestions of the stakeholders on the proposed amendments.

However, In this Order, the Commission has approved the SHR norms as specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

During performance review for FY 2012-13, the Commission approved the SHR for NTPS for FY 2012-13 as approved in the MYT Order for FY 2010-11 to FY 2012-13, at 3266 kcal/kWh. The Commission, in this Order, has approved the GSHR of 3266 kcal/kWh for NTPS. For LTPS, however, the Commission has revised the GSHR considering the actual generation of LTPS WHRU for FY 2012-13. The computation of the revised GSHR for LTPS WHRU is given below:

GSHR for open cycle as per AERC Tariff = 3658 kcal/kWh
Regulations, 2006

Total generation of LTPS for FY 2012-13 = 888.08 MU

Generation in WHRU for FY 2012-13 = 191.36 MU

Generation excluding WHRU = 696.72 MU

Approved GSHR taking into consideration = $(3658/888.08) \times 696.72$
WHRU generation = **2869.80 kcal/kWh**

Hence, the Commission approves the GSHR of 3266 kcal/kWh and 2869.80 kcal/kWh for NTPS and LTPS, respectively, for FY 2012-13.

5.3.7 Fuel Cost

APGCL has claimed the actual fuel cost of Rs. 364.54 Crore as per the audited Annual Accounts for FY 2012-13. As the station-wise fuel cost is not mentioned in the audited Annual Accounts for FY 2012-13, the Commission asked APGCL to submit the actual fuel bills for FY 2012-13. The Commission has verified the actual fuel price and gross calorific value (GCV) of fuel from the actual fuel bills submitted by APGCL. The Commission has trued up the fuel cost for FY 2012-13 based on the approved performance parameters and actual fuel price and GCV for FY 2012-13. The actual weighted average GCV and landed price of gas considered by the Commission in the truing up of fuel cost for FY 2012-13 is shown in the Table below:

Table 5.13: Actual weighted average GCV and price of gas considered by the Commission for truing up for FY 2012-13

Sl. No.	Station	Wt. Avg. GCV of gas (kcal/SCM)	Wt. Avg. price of gas (including transport) (Rs./1000 SCM)
1	NTPS	9182.50	5910.07
2	LTPS	9526.93	7155.43

The fuel cost trued up by the Commission for APGCL for FY 2012-13 based on the approved generation and performance parameters is shown in the Table below:

Table 5.14: Approved fuel cost for truing up for FY 2012-13

Sl. No.	Particulars	Derivation	Unit	NTPS	LTPS with WHRU	Total
1	Gross Generation	A	MU	533.17	888.08	1421.25
2	Heat Rate	B	kcal/kWh	3266.00	2869.80	
3	GCV of gas	C	kcal/SCM	9182.50	9526.93	
4	Overall Heat	D=AxB	G. cal.	1741326.69	2548605.42	4289932.11
5	Gas consumption	E=D/C	M. SCM	189.64	267.52	
6	Price of Gas	F	Rs./1000 SCM	5910.07	7155.43	
7	Total cost of Gas	G=ExF/100	Rs. Lakh	11207.58	19141.92	30349.51
8	Auxiliary Consumption	H	%	4.50%	5.50%	
9	Auxiliary Consumption	I=AxH	MU	23.99	48.84	
10	Net Generation	J=A-I	MU	509.18	839.23	1348.41
11	Fuel Cost per Unit (Gross)	K=G/A/10	Rs./kWh	2.10	2.16	2.14
12	Fuel Cost per Unit (Net)	L=G/J/10	Rs./kWh	2.20	2.28	2.25

The Commission thus, approves the trued up fuel cost of Rs. 303.50 Crore as against the actual fuel cost of Rs. 364.54 Crore for FY 2012-13.

5.3.8 Incentive for Generation

As discussed in Para 5.3.3, APGCL is eligible for incentive for the thermal stations at a flat rate of 25.00 paise/kWh, for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target PLF. Further, as discussed in Para 5.3.2, incentive is payable for the hydro generating station in case Capacity Index exceeds 90% for run-of-river plant in accordance with the following formula:

$$\text{Incentive} = 0.65 \times \text{Annual Fixed Charges} \times (CI_A - CI_N) / 100$$

Where:

CI_A- Capacity Index Achieved

CI_N- Normative Capacity Index, i.e., 90% for run-of-river plant

The incentive calculations for thermal generating stations and hydro generation are shown in the Tables below:

Table 5.15: Incentive computation for Thermal Stations for FY 2012-13

Sl. No.	Station	PLF (%)		Gross Generation (MU)		Auxiliary Consumption (%)		Net Generation (MU)		Ex-bus energy eligible for incentive (MU)	Incentive (Rs. Crore)
		Target for Incentive	Actual	At target PLF	Actual	Normative	Actual	At target PLF	Actual		
1	NTPS	50.00	50.93	523.41	533.17	4.50	5.63	499.86	503.14	3.28	0.08
2	LTPS with WHRU	50.00	64.49	688.54	888.08	5.50	11.48	650.67	786.17	135.50	3.39
	Total			1211.95	1421.25			1150.52	1289.30	138.78	3.47

Table 5.16: Incentive computation for Hydro Station for FY 2012-13

Sl. No.	Station	Capacity Index (%)		Generation capacity (MW)		Annual Fixed Charges (Rs. Crore)		Incentive (Rs. Crore)
		Normative	Actual	Total APGCL	KLHEP	Total APGCL	KLHEP	
1	KLHEP	90.00	92.50	376.70	100.00	135.32	35.92	0.58

Thus, for thermal generating stations, APGCL is eligible for incentive of 25.00 paise/kWh for 138.78 MU of ex-bus energy for FY 2012-13, which works out to Rs. 3.47 Crore, and for the hydro generating station, incentive for exceeding target Capacity Index works out to Rs. 0.58 Crore. The total incentive amount of Rs. 4.05 Crore is to be passed on as incentive in the ARR for FY 2012-13.

5.3.9 Employee expenses

The Commission, in the Tariff Order for FY 2012-13, had approved the employee expenses of Rs. 69.52 Crore. APGCL has claimed the actual employee expenses of Rs. 72.11 Crore for FY 2012-13, as per the audited Annual Accounts. The employee expenses of Rs. 72.11 Crore include the terminal benefits of Rs. 11.12 Crore, which is a part of employee expenses. As the actual employee expenses for FY 2012-13 is only slightly higher than the approved employee expenses, and the actual increase over the trued up employee expenses of FY 2011-12 works out to 9.65%, which is slightly higher than the growth of 8% considered by the Commission, **the Commission has approved the employee expenses of Rs. 72.11 Crore as per the audited Annual Accounts for FY 2012-13.**

5.3.10 Repair and Maintenance (R&M) expenses

The Commission, in the Tariff Order for FY 2012-13, had approved the R&M expenses of Rs. 25.58 Crore. APGCL has claimed the actual R&M expenses of Rs. 20.58 Crore for FY 2012-13 as per the audited Annual Accounts. As the actual R&M expenses are lower than the approved R&M expenses, **the Commission has approved the R&M expenses of Rs. 20.58 Crore as per the audited Annual Accounts for FY 2012-13.**

5.3.11 Administration and General (A&G) expenses

The Commission, in the Tariff Order for FY 2012-13, had approved the A&G expenses of Rs. 5.66 Crore. APGCL has claimed the actual A&G expenses of Rs. 6.38 Crore for FY 2012-13 as per the audited Annual Accounts. As the actual A&G expenses are only slightly higher than the approved A&G expenses, **the**

Commission has approved the A&G expenses of Rs. 6.38 Crore as per the audited Annual Accounts for FY 2012-13.

5.3.12 Depreciation

The Commission, in the Tariff Order for FY 2012-13, had approved the depreciation for APGCL as Rs. 38.92 Crore.

APGCL has claimed depreciation of Rs. 31.52 Crore for FY 2012-13. The Commission asked APGCL to submit the computations of depreciation for FY 2012-13. The Commission observed that although the opening GFA and closing GFA for FY 2012-13 as submitted by APGCL matches with the audited Annual Accounts, the GFA addition and GFA deletion as submitted by APGCL does not match with the audited Annual Accounts. Further, the Commission also observed that the computations of depreciation submitted by APGCL are not in conformity to the methodology approved by the Commission for approval of depreciation for APGCL.

As per the audited Annual Accounts, actual depreciation for FY 2012-13 is Rs. 37.87 Crore. However, the audited Annual Accounts state that depreciation for the period has been provided on straight-line method as per Schedule XIV of the Companies Act, 1956, and that the fixed assets have been depreciated up to 95% of the original cost after taking 5% as the residual value. Further, consumers' contribution, subsidies, and grants towards cost of capital assets have not been reduced from the cost of assets but have been treated as reserves and surplus and depreciation pertaining to fixed assets constructed out of consumers' contribution, subsidies, and grants towards cost of capital assets have been charged.

The depreciation for FY 2012-13 has been computed in accordance with Regulation 14 of AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006, as explained below. As specified in Regulation 14 of AERC Tariff Regulations, assets created using consumer contribution or capital subsidy/grant, etc., need to be excluded from the asset value for the purpose of depreciation. The Commission has considered the GFA base for FY 2012-13 as per the audited Annual Accounts. Further, the Commission has considered the opening and closing values of assets created out of grants/subsidies and consumer contributions for FY 2012-13 as per the audited Annual Accounts. The weighted average rate of depreciation has been considered for computing the depreciation on assets created out of grants/subsidies

and consumer contribution and the same has been deducted from the total depreciation to arrive at the allowable depreciation for FY 2012-13. The depreciation approved by the Commission for true-up for FY 2012-13 is shown in the Table below:

Table 5.17: Depreciation approved for true-up for FY 2012-13

(Rs. Crore)

Sl. No.	Particulars	All Stations				Rate of depreciation	Depreciation as per AERC Regulations
		GFA 01.04.2012	Additions during FY 2012-13	Deductions during FY 2012-13	Closing GFA		
1	Land & Rights	20.79	0.00	0.00	20.79	0.00%	0.00
2	Building	44.05	0.93	0.00	44.98	1.80%	0.72
3	Hydraulic	175.01	0.35	30.05	145.31	2.57%	3.70
4	Other Civil Works	184.47	0.37	0.00	184.84	1.80%	2.99
5	Plant & Machinery Gas	470.61	17.69	0.00	488.30	6.00%	25.89
6	Plant & Machinery Hydel	175.17	0.03	0.00	175.20	2.57%	4.05
7	Lines & Cable Network	44.02	0.31	0.00	44.33	2.57%	1.02
8	Vehicles	1.24	0.00	0.00	1.24	18.00%	0.20
9	Furniture & Fixtures	3.99	0.29	0.00	4.28	6.00%	0.22
10	Office Equipment	0.90	0.17	0.00	1.07	6.00%	0.05
11	Capital spares at generating stations	172.33	1.77	0.00	174.10	4.75%	7.40
12	TOTAL	1292.58	21.90	30.05	1284.43		46.26
13	Average Assets in FY 2012-13 (excluding land value)	1267.72				3.65%	
14	Less: Average capital subsidy & contributions/grants	352.00					11.56
15	Depreciation for the year						34.70

Table 5.18: Depreciation on assets created out of grants/subsidies and consumer contribution

Particulars	Rs. Crore
Grants & subsidies as on 01/04/2012	304.75
Grants & subsidies as on 01/04/2013	399.25
Average grants & subsidies	352.00
Depreciation on 90% of the Assets funded by grants/subsidies	11.56

Accordingly, the Commission has approved the depreciation of Rs. 34.70 Crore for true-up for FY 2012-13.

5.3.13 Interest and Finance Charges

The Commission, in the Tariff Order for FY 2012-13, had approved the interest and finance charges for APGCL as Rs. 36.49 Crore.

APGCL has claimed the interest and finance charges of Rs. 42.53 Crore for FY 2012-13 as per the audited Annual Accounts. It was observed from the audited Annual Accounts that the interest and finance charges include Rs. 4.75 Crore charged on account of interest on GPF. The Commission asked APGCL to submit the details, in case if any fund has been created or GPF money had been invested with separate identification with some designated bank. APGCL submitted that it had requested the Government of Assam for the inclusion of APGCL and its GPF Rules & Regulations under the Provident Fund Act, 1925. APGCL also submitted the copies of letters dated April 16, 2012, October 23, 2012, January 21, 2014 and August 05, 2014 to the Government of Assam regarding the same. APGCL submitted that the GPF fund could not be established as the reply from Government of Assam is awaited. Further, from the computations of interest and finance charges submitted by APGCL, the Commission observed that APGCL has paid penal interest on GoA Loan in FY 2012-13, which is not allowable.

In line with the approach adopted in the earlier Orders, the Commission has not allowed the interest on GPF in the true-up for FY 2012-13. The Commission has considered the opening balance of loans equal to the closing balance of loans approved by the Commission in the true up for FY 2011-12. The Commission has considered the actual interest rates as submitted by APGCL for computing the interest expenses for FY 2012-13. The Commission has considered the interest expenses capitalised and finance charges as per the audited Annual Accounts for FY 2012-13. The interest and finance charges approved by the Commission for FY 2012-13 is shown in the Table below:

Table 5.19: Interest and Finance Charges approved by the Commission for FY 2012-13**(Rs. Crore)**

Sl. No.	Particulars	FY 2012-13					
		Opening Balance	Receipts	Repayments	Closing Balance	Rate of interest	Interest
1	PFC	239.45	90.00	22.97	306.48	10.09%	27.53
2	State Govt. Loan	84.98	12.37	0.00	97.35	10.50%	9.57
3	Total	324.43	102.37	22.97	403.83	10.19%	37.10
4	Other Bank Charges						0.00
5	Other Finance Charges						0.19
6	Less: Interest capitalised						4.01
7	Net Interest and finance charges						33.28

Accordingly, the Commission has trued up the interest and finance charges of Rs. 33.28 Crore for FY 2012-13 as against Rs. 42.53 Crore claimed by APGCL.

5.3.14 Interest on Working Capital

The Commission, in the Tariff Order for FY 2012-13, had approved the interest on working capital as Rs. 14.47 Crore. As against the same, APGCL has claimed the interest of working capital of Rs. 18.49 Crore for true-up for FY 2012-13. The Commission has approved the normative interest on working capital for FY 2012-13 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 as shown in the Table below:

Table 5.20: Interest on Working Capital approved by the Commission for FY 2012-13**(Rs. Crore)**

Particulars	Approved in Tariff Order for FY 2012-13	True-up Petition	Approved by the Commission
Fuel Cost (1 month)	13.11	30.45	21.20
O&M expenses (1 month)	8.40	7.90	8.26
Maintenance spares	12.93	12.57	12.93
Receivables (2 months)	63.69	76.61	64.96
Total Working Capital	98.13	127.53	107.34
Rate of Interest on Working Capital	14.75%	14.50%	14.75%
IWC	14.47	18.49	15.83

Accordingly, the Commission has trued up the interest on working capital of Rs. 15.83 Crore for FY 2012-13 as against Rs. 18.49 Crore claimed by APGCL.

5.3.15 Prior period items

APGCL has not claimed any prior period items for true-up for FY 2012-13. The Commission observed that as per the audited Annual Accounts, there has been net prior period income for FY 2012-13. The Commission asked APGCL to submit the details of prior period expenses and income for FY 2012-13 clearly segregating the components of ARR under which such expenses and income pertain to. The Commission observed that the prior period items pertain to the ARR items of employee expenses, A&G expenses, fuel cost, interest and finance charges, etc. The Commission has considered the prior period expenses and income pertaining to the ARR components, which have been approved by the Commission in the earlier Orders. At the same time, the Commission has not considered the heads of prior period expenses and income, which pertain to ARR components, which have not been approved by the Commission in the earlier Tariff Orders. Accordingly, the net prior period income for FY 2012-13 approved by the Commission is Rs. 63.98 Crore as against the net prior period income of Rs. 82.75 Crore as per the audited Annual Accounts. The prior period items approved by the Commission for true-up for FY 2012-13 are shown in the Table below:

Table 5.21: Prior period items approved by the Commission for true-up for FY 2012-13

(Rs. Crore)

Particulars	Audited Accounts	Approved by the Commission for true-up for FY 2012-13	Component of ARR
Prior period expenses			
Administration expenses booked as preliminary expenses in prior periods	0.00	0.00	A&G expenses
Oil stock appeared in trial balance as on 01-04-05 booked as consumption	1.58	1.58	Fuel cost
Withdrawal of interest accrued but not due on FD during 2011-12	0.17	0.17	Other Income
Final adjustment of interest to old liability due to court case with BHPCL	13.59	13.59	Interest and Finance Charges
Interest Liability for FY 2010-12 on GoA loan for NRPP	0.62	0.62	Interest and Finance Charges
Amount payable to OIL towards differential royalty for Natural Gas supplied during 01.01.2010 to 31.05.2010	0.41	0.41	Fuel Cost
Total prior period expenses	16.39	16.39	
Prior period income			

Particulars	Audited Accounts	Approved by the Commission for true-up for FY 2012-13	Component of ARR
Interest accrued and due on FD	0.17	0.17	Other Income
Proportionate amount of insurance premium of KLHEP	0.63	0.63	A&G expenses
Withdrawal of provision for ROP arrear made during FY 2008-09	31.75	31.75	Employee expenses
Withdrawal of liability occurring since O/B of FY 2005-06	0.01	0.01	Employee expenses
Excess provision of income tax made during FY 2010-11 withdrawn	0.04	0.04	Provision for taxes
Withdrawal of excess provision for interest of old liability due to court case with BHPCL	43.95	43.95	Interest and Finance Charges
Withdrawal of excess accumulated depreciation of old liability due to court case with BHPCL	3.09	3.09	Depreciation
FD made in prior period re-investment of interest	0.51	0.51	Other Income
FD made in prior period re-investment of interest	0.09	0.09	Other Income
Writing back of excess provision created for payment of interest on Public Bonds	18.77	0.00	Interest and Finance Charges
Interest income for prior period	0.14	0.14	Other Income
Total prior period income	99.14	80.37	
Net prior period expense/(income)	-82.75	-63.98	

Accordingly, the Commission has approved the net prior period income of Rs. 63.98 Crore for FY 2012-13.

5.3.16 Return on Equity

The Commission, in the Tariff Order of FY 2012-13, had approved the Return on Equity for APGCL as Rs. 37.99 Crore. APGCL has claimed the Return on Equity of Rs. 62.64 Crore for true-up for FY 2012-13. The Commission observed that the opening equity considered by APGCL for FY 2012-13 is Rs. 404.11 Crore whereas the Commission has approved the closing equity for FY 2011-12 as 271.37 Crore. Also, APGCL has claimed Return on Equity at the rate of 15.50% whereas the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 specify the rate of Return on Equity as 14%. In this regard, APGCL submitted that in FY 2011-12, the amount of Rs. 455.81 Crore of share application money pending allocation was converted to equity and hence, the closing equity for FY 2011-12 as per the Audited

Annual Accounts for FY 2011-12 is Rs. 455.86 Crore.

The Commission had approved the equity base of Rs. 271.37 Crore for APGCL for its 3 operating Stations. The Commission has considered the same in the true-up for FY 2011-12 and approval of MYT for FY 2013-14 to FY 2015-16 on which APGCL has not sought any review in accordance with the AERC (Conduct of Business) Regulations, 2004. Further, the equity base, for the purpose of giving returns, has to correspond to the capitalisation approved by the Commission, irrespective of the equity appearing in the audited Annual Accounts of the Petitioner. Hence, the Commission does not find the need to revise the equity base for APGCL. The Commission has retained the Return on Equity at Rs. 37.99 Crore in the true-up for FY 2012-13 as approved in the true-up for FY 2011-12 as there is no further equity addition during the year.

5.3.17 Income Tax

The Commission, in the Tariff Order for FY 2012-13, had approved the provision for tax as Rs. 5.54 Crore. As against the same, APGCL has claimed the income tax of Rs. 0.50 Crore for FY 2012-13 as per the Audited Annual Accounts. The Commission asked APGCL to submit the copy of Income Tax Return Verification (ITRV) form for Assessment Year 2013-14 (i.e., FY 2012-13) for the income tax paid. The Commission observed that the actual tax paid for FY 2012-13 is Rs. 0.19 Crore and hence, has approved the same in the true-up for FY 2012-13.

5.3.18 Other Income

The Commission, in the Tariff Order for FY 2012-13, had approved the other income as Rs. 8.99 Crore. As against the same, APGCL has considered the other income of Rs. 8.18 Crore for true-up for FY 2012-13. The Commission observed that the actual other income as per the audited Annual Accounts for FY 2012-13 is Rs. 21.77 Crore and accordingly has approved the same in true-up for FY 2012-13. The difference of Rs. 13.59 crore is on account of grant from GoA towards final adjustment of interest to old liability due to court case with BHPCL. Since, the matching amount has been allowed as a prior period expense (refer Table 5.21 above), the grant received from the Government of Assam to meet the liabilities has to also be considered. The Commission has deducted the liquidated damages recovered from contractors from the other income as the same pertains to capital cost of projects. The other income approved by the Commission for true-up for FY 2012-13 is shown in the Table below:

Table 5.22: Other Income approved by the Commission for true-up for FY 2012-13

(Rs. Crore)

Particulars	Audited Accounts	Approved by the Commission for true-up for FY 2012-13
Other income as per Note 22 of the Audited Accounts	13.76	13.76
Less: Liquidated damages recovered from contractors for delay in completion of projects	5.58	5.58
Add: Grant from GoA towards final adjustment of interest to old liability due to court case with BHPCL	13.59	13.59
Other income	21.77	21.77

5.3.19 Revenue from Sale of Power

APGCL has claimed the revenue from sale of power for FY 2012-13 as Rs. 459.66 Crore as per the audited Annual Accounts. **The Commission has considered the revenue from sale of power as Rs. 459.66 crore as per the audited Annual Accounts for FY 2012-13 for true-up for FY 2012-13.**

5.3.20 Summary of true-up for FY 2012-13

In view of the above analysis and approvals given by the Commission, **the approved revenue requirement for FY 2012-13 after true-up is summarised in the Table below:**

Table 5.23: Summary of true-up for FY 2012-13

(Rs. Crore)

Sl. No.	Particulars	Approved in the Tariff Order for FY 2012-13	True up Petition	Audited Accounts	Approved after true-up
(i)	(ii)	(iv)	(v)	(vi)	(vii)
A	Fixed Charges				
1	Operation and Maintenance expenses				
1.1	Employee expenses	69.52	72.11	72.11	72.11
1.2	Repair and Maintenance expenses	25.58	20.58	20.58	20.58

Sl. No.	Particulars	Approved in the Tariff Order for FY 2012-13	True up Petition	Audited Accounts	Approved after true-up
1.3	Administrative and General expenses	5.66	6.38	6.38	6.38
2	Interest and Finance Charges	36.49	42.53	42.53	33.28
3	Interest on Working Capital	14.47	18.49	0.00	15.83
4	Income Tax	5.54	0.50	0.50	0.19
5	Depreciation	38.92	31.52	37.87	34.70
6	Return on Equity	37.99	62.64	0.00	37.99
7	Less: Other Income	8.99	8.18	21.77	21.77
8	Prior Period expenses(+) / credit(-)			-82.75	-63.98
9	Total Fixed Charges	225.18	246.72	75.45	135.32
B	Fuel Cost	157.32	364.54	364.54	303.50
C	Incentive for Generation for FY 2012-13	0.00	0.00	0.00	4.05
D	Annual Revenue Requirement	382.50	611.26	439.99	442.87
E	Revenue from sale of Power	-	459.66	459.66	459.66
F	Revenue Gap (+)/Surplus (-)	-	151.60	-19.67	-16.79

Hence, the net revenue surplus on true-up for FY 2012-13 is Rs. 16.79 Crore as against the net revenue gap of Rs. 151.60 Crore as claimed by APGCL. The same has been carried forward for adjustment in the revised ARR for FY 2014-15.

6 Annual Performance Review for FY 2013-14

6.1 ANNUAL PERFORMANCE REVIEW

The MYT Order for the Control Period from FY 2013-14 to FY 2015-16 was issued by the Commission on November 21, 2013 and came into effect from December 1, 2013. Before issuing the next Tariff Order, it is important for the Commission to review the technical as well as financial performance of APGCL vis-à-vis the Tariff Order issued by the Commission for this year. Also, it is pertinent and desirable that the Commission reviews its own estimation and directives to ensure better and effective implementation of its next Tariff Order.

While the true-up exercise was based on the audited Annual Accounts for FY 2012-13, the review exercise examines the technical and financial performance of APGCL based on approved parameters for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16 based on the actual performance for the first six months of the year and estimated performance for the balance six months of the year.

The exercise also attempts to gauge the effectiveness of the last Tariff Order by evaluating the extent of implementation of the directives in the Tariff Order. These aspects are discussed in the following paragraphs.

As FY 2013-14 is already over, in reply to the Commission's query, APGCL has submitted the actual performance parameters and provisional Annual Accounts for FY 2013-14, which have been considered by the Commission in the APR for FY 2013-14.

6.1.1 Availability / Capacity Index

The revised Availability / Capacity Index for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.1: Availability / Capacity Index for FY 2013-14

Sl. No.	Station	Target Availability / Capacity Index (%)	Approved for FY 2013-14 in the MYT Order for FY 2013-16 (%)	APR Petition (%)
1	NTPS	50.0	51.7	52.0

Sl. No.	Station	Target Availability / Capacity Index (%)	Approved for FY 2013-14 in the MYT Order for FY 2013-16 (%)	APR Petition (%)
2	LTPS with WHRU	50.0	68.0	67.0
3	KLHEP	90.0	90.0	90.0

APGCL shall be eligible to recover full fixed charges if the actual Availability / Capacity Index is higher than the target Availability / Capacity Index specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

6.1.2 Plant Load Factor (PLF)

The revised PLF for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.2: Plant Load Factor for FY 2013-14

Sl. No.	Station	Target PLF for incentive (%)	Approved for FY 2013-14 in the MYT Order for FY 2013-16 (%)	APR Petition (%)
1	NTPS	50.0	50.0	50.3
2	LTPS with WHRU	50.0	62.1	65.1

The revised PLF submitted by APGCL for NTPS and LTPS for FY 2013-14 are higher than the targeted PLF of 50%, and also higher than the PLF approved by the Commission in the MYT Order.

6.1.3 Auxiliary Energy Consumption

The revised Auxiliary Energy Consumption for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.3: Auxiliary Energy Consumption for FY 2013-14

Sl. No.	Station	Approved for FY 2013-14 in the MYT Order for FY 2013-16 (%)	APR Petition (%)
1	NTPS	4.5	6.0
2	LTPS	5.5	6.9
3	KLHEP	0.5	0.2

It is observed that the revised Auxiliary Energy Consumption for NTPS and LTPS estimated by APGCL in the APR Petition for FY 2013-14 is higher than the Auxiliary Energy Consumption approved by the Commission.

6.1.4 Gross Generation and Net Generation

The revised gross generation and net generation for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.4: Gross Generation and Net Generation for FY 2013-14
(MU)

Sl. No.	Station	Approved for FY 2013-14 in the MYT Order for FY 2013-16		APR Petition	
		Gross	Net	Gross	Net
1	NTPS	523.41	499.86	526.57	494.98
2	LTPS with WHRU	855.30	808.26	896.15	817.47
3	Total Thermal	1378.71	1308.12	1422.72	1312.45
4	KLHEP	390.00	388.05	422.51	420.40
5	Myntriang SHEP	17.69	17.60	-	-
6	Total APGCL	1786.40	1713.77	1845.23	1732.85

The revised gross generation and net generation for FY 2013-14 estimated by APGCL in the APR Petition is higher than that approved by the Commission. APGCL submitted that Myntriang SHEP Stage II was commissioned on March 03, 2014 however, generation from Myntriang SHEP Stage II was not submitted by APGCL for FY 2013-14. The Commission shall consider the actual generation as certified by SLDC in truing up for FY 2013-14.

6.1.5 Gross Station Heat Rate

The revised Gross Station Heat Rate for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.5: Gross Station Heat Rate for FY 2013-14**(kcal/kWh)**

Sl. No.	Station	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition
1	NTPS	3266	3976
2	LTPS with WHRU	2792	3164

It may be observed that the revised Gross Station Heat Rate for FY 2013-14 for NTPS and LTPS estimated by APGCL in the APR Petition is higher than that approved by the Commission. For LTPS, the Commission has computed the Gross Station Heat Rate of 2872 kcal/kWh based on the actual gross generation for FY 2013-14 in open cycle and with WHRU, as submitted by APGCL, as shown below:

Table 6.6: GSHR for LTPS with WHRU (kcal/kWh)

Particulars	Unit	Value
Heat Rate as per AERC Regulations	kcal/kWh	3658.00
Total generation of LTPS for FY 2013-14	MU	896.15
Generation in WHRU for FY 2013-14	MU	192.56
Generation other than WHRU	MU	703.59
Approved Heat Rate taking into consideration WHRU generation	kcal/kWh	2872.00

6.1.6 Fuel Cost

The revised weighted average GCV of gas and landed price of gas for FY 2013-14 estimated by APGCL in the APR Petition, is shown in the Table below:

Table 6.7: Weighted average GCV and landed price of gas for FY 2013-14

Sl. No.	Station	Approved for FY 2013-14 in the MYT Order for FY 2013-16		APR Petition	
		Wt. Avg. GCV of Gas (kcal/SCM)	Wt. Avg. price of Gas (including transport) (Rs./1000 SCM)	Wt. Avg. GCV of Gas (kcal/SCM)	Wt. Avg. price of Gas (including transport) (Rs./1000 SCM)
1	NTPS	9182.00	5904.16	9268.02	6488.49
2	LTPS with WHRU	9527.00	7161.25	9580.61	8059.51

The Commission has approved the fuel cost of Rs. 289.45 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. Against the same, APGCL has estimated the revised fuel cost of Rs. 372.53 Crore. The fuel cost for FY 2013-14 as per the provisional Annual Accounts is Rs. 385.36 Crore. The Commission shall analyse in detail the reasons for increase in fuel cost while approving the FPPPA for FY 2013-14 and also in the true-up for FY 2013-14.

Table 6.8: Fuel Cost for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	Fuel Cost	289.45	372.53	385.36

6.1.7 Employee expenses

The Commission has approved the employee expenses of Rs. 78.12 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised employee expenses of Rs. 80.00 Crore. The employee expenses as per the provisional Annual Accounts for FY 2013-14 is Rs. 82.00 Crore. The Commission shall true-up the employee expenses for FY 2013-14 based on the prudence check of audited Annual Accounts.

Table 6.9: Employee expenses for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	Employee expenses	78.12	80.00	82.00

6.1.8 Repair and Maintenance expenses (R&M expenses)

The Commission has approved the R&M expenses of Rs. 14.91 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. Thereafter, in the Review Order dated July 07, 2014, the Commission has approved the R&M expenses of Rs. 26.73 Crore for FY 2013-14. As against the same, APGCL has proposed the revised R&M expenses of Rs. 14.91 Crore. The R&M expenses as per the provisional Annual Accounts for FY 2013-14 is Rs. 24.56 Crore. The Commission shall true-up the R&M expenses for FY 2013-14 based on the prudence check of audited Annual Accounts.

Table 6.10: R&M expenses for FY 2013-14**(Rs. Crore)**

S. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	Approved in the Review Order	APR Petition	Provisional Accounts
1	R&M expenses	14.91	26.73	14.91	24.56

6.1.9 Administration and General expenses (A&G expenses)

The Commission has approved the A&G expenses of Rs. 5.93 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has proposed the revised A&G expenses of Rs. 8.45 Crore. The A&G expenses as per the provisional Annual Accounts for FY 2013-14 is Rs. 12.51 Crore, which is much higher than the approved expenses as well as APGCL's own revised estimate. APGCL should submit detailed justification for the higher A&G expense, in case the audited A&G expense is also significantly higher than the approved expenses. The Commission shall true-up the A&G expenses for FY 2013-14 based on the prudence check of audited Annual Accounts.

Table 6.11: A&G expenses for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	A&G expenses	5.93	8.45	12.51

6.1.10 Depreciation

The Commission has approved depreciation of Rs. 16.35 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised depreciation of Rs. 31.50 Crore for FY 2013-14. The Commission shall true-up the depreciation for FY 2013-14 based on the GFA addition as per the audited Annual Accounts and approved capitalisation in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

Table 6.12: Depreciation for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	Revised Proposed	Provisional Accounts
1	Depreciation	16.35	31.50	28.67

6.1.11 Interest and Finance Charges

The Commission has approved the interest and finance charges of Rs. 30.90 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised interest and finance charges of Rs. 36.61 Crore. The interest and finance charges for FY 2013-14 as per the provisional Annual Accounts is Rs. 43.96 Crore. The Commission shall true-up the interest and finance charges for FY 2013-14 based on the prudence check of audited Annual Accounts and approved capitalisation.

Table 6.13: Interest and Finance Charges for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	Interest and Finance Charges	30.90	36.61	43.96

6.1.12 Interest on Working Capital

The Commission has approved the normative interest on working capital of Rs. 18.25 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised interest on working capital of Rs. 24.62 Crore for FY 2013-14. The Commission shall true-up the normative interest on working capital for FY 2013-14 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

Table 6.14: Interest on Working Capital for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition
1	Interest on Working Capital	18.25	24.62

6.1.13 Income Tax

The Commission has approved the income tax of Rs. 0.93 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised income tax of Rs. 19.10 Crore for FY 2013-14. The income tax for FY 2013-14 as per the provisional Annual Accounts is Rs. 0.45 Crore. The Commission shall true-up the income tax for FY 2013-14 based on the actual income tax paid by APGCL.

Table 6.15: Income Tax for FY 2013-14**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	Income Tax	0.93	19.10	0.45

6.1.14 Return on Equity

The Commission has approved the Return on Equity of Rs. 37.99 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised Return on Equity of Rs. 62.64 Crore for FY 2013-14. The Commission shall true-up the Return on Equity for FY 2013-14 based on the approved capitalisation in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

Table 6.16: Return on Equity for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition
1	Return on Equity	37.99	62.64

6.1.15 Other Income

The Commission has approved the other income of Rs. 10.99 Crore for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has estimated the revised other income of Rs. 7.53 Crore for FY 2013-14. The other income for FY 2013-14 as per the Provisional Annual Accounts is Rs. 10.54 Crore. The Commission shall true-up the other income for FY 2013-14 based on the prudence check of the audited Annual Accounts.

Table 6.17: Other Income for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
1	Other Income	10.99	7.53	10.54

6.1.16 Revenue from Sale of Power

APGCL has proposed the revenue from sale of power of Rs. 637.78 Crore for FY 2013-14. The revenue from sale of power for FY 2013-14 as per the provisional Annual Accounts is Rs. 547.05 Crore.

6.1.17 Review of ARR for FY 2013-14

Based on the above analysis, the ARR approved by the Commission for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16 and the revised estimates submitted by APGCL is shown in the Table below:

Table 6.18: Summary of APR for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2013-14 in the MYT Order for FY 2013-16	APR Petition	Provisional Accounts
A	Fixed Charges			
1	Operation and Maintenance expenses			
1.1	Employee expenses	78.12	80.00	82.00
1.2	Repair and Maintenance expenses	14.91	14.91	24.56
1.3	Administrative and General expenses	5.93	8.45	12.51
2	Interest and Finance Charges	30.90	36.61	43.96
3	Interest on Working Capital	18.25	24.62	0.00
4	Income Tax	0.93	19.10	0.45
5	Depreciation	16.35	31.50	28.67
6	Return on Equity	37.99	62.64	0.00
7	Less: Other Income	10.99	7.53	10.54
8	Total Fixed Charges	192.38	270.29	181.61
B	Fuel Cost	289.45	372.53	385.36
C	True-up for FY 2011-12	13.10	0.00	0.00
D	Annual Revenue Requirement	494.94	642.82	566.97

The Commission shall carry out the true up of revenue and expenses for FY 2013-14 based on the audited Annual Accounts for FY 2013-14 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

7 Revised ARR and Generation Tariff for FY 2014-15

7.1 INTRODUCTION

This Chapter deals with determination of revised fixed charges and variable charges for APGCL for FY 2014-15. The Commission has approved the ARR for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. The Commission, in this Order, has carried out the true-up of expenses and revenue for FY 2012-13 based on the audited Annual Accounts and Annual Performance Review for FY 2013-14 based on the provisional Annual Accounts and has accordingly revised the ARR and generation tariff for FY 2014-15.

7.2 OPERATING GENERATION CAPACITY

The operating generation capacity of APGCL as on March 31, 2014 is shown in the Table below:

Table 7.1: Operating Generation Capacity of APGCL as on March 31, 2014

Sl. No.	Station	Operating Capacity (MW)
1	NTPS	119.5
2	LTPS with WHRU	157.2
3	KLHEP	100.0
4	Myntriang SHEP Stage II	3.00
Total		379.7

7.3 BRIEF STATUS OF APGCL POWER STATIONS

The status of APGCL's power stations as submitted by APGCL is as follows:

7.3.1 Namrup Thermal Power Station (119.5 MW)

Currently, Namrup Thermal Power Station is generating at an average capacity of 65-100 MW depending on the availability of gas. The brief status of the Units is as follows:

- Unit 1 (20 MW, GT): Unit is running at effective capacity of 18 MW. The Unit is scheduled for major overhaul in FY 2014-15 for a period of 45 days.
- Unit 2 (21 MW, GT): Unit is running at effective capacity of 20 MW.
- Unit 3 (21 MW, GT): Unit is running at effective capacity of 16 MW.
- Unit 4 (11 MW, GT): Unit is running at effective capacity of 9 MW. The Unit is scheduled for major overhaul in FY 2014-15 for a period of 45 days.
- Unit 5 (24 MW, ST): Unit is running at an average load of 13 MW due to technical constraints.
- Unit 6 (22.5 MW, WHRU): Unit is running at an average load of 15 MW due to technical constraints. The Unit is scheduled for major overhaul in FY 2014-15 for a period of 60 days.

7.3.2 Lakwa Thermal Power Station (157.2 MW)

Currently, Lakwa Thermal Power Station is generating at an average capacity of 100-125 MW depending on the availability of gas. The brief status of the Units is as follows:

- Unit 1 (15 MW, GT): The Unit is running at full load capacity.
- Unit 2 (15 MW, GT): The Unit is running at full load capacity. The Unit is scheduled for major overhaul in FY 2014-15 for a period of 50 days.
- Unit 3 (15 MW, GT): The Unit is running at full load capacity.
- Unit 4 (15 MW, GT): The Unit is running at full load capacity.
- Unit 5 (20 MW, GT): The Unit was shut down for major overhaul for a period of 30 days in FY 2013-14.
- Unit 6 (20 MW, GT): The Unit is running at full load capacity.
- Unit 7 (20 MW, GT): The Unit is running at full load capacity. The Unit is scheduled for major overhaul in FY 2014-15 for a period of 30 days.
- Unit 8 (37.2 MW, WHRU): The Unit is running at an average load of 30 to 32 MW.

7.3.3 Karbi Langi Hydro Electric Project (100 MW)

- Unit 1 (50 MW): The Unit is running at full load capacity depending on the availability of water.
- Unit 2 (50 MW): The Unit was shut down for major overhaul for a period of 68 days in FY 2013-14.

7.3.4 Myntriang SHEP Stage II (3 MW)

- The overall progress of works in Stage-II is 99.5% complete and is expected to be commissioned in March 2014.

7.4 REVISED ARR AND GENERATION TARIFF FOR FY 2014-15

7.4.1 Availability / Capacity Index

The Availability / Capacity Index approved by the Commission for FY 2014-15 and the revised Availability / Capacity Index projected by APGCL is shown in the Table below:

Table 7.2: Revised Availability / Capacity Index projected for FY 2014-15

Sl. No.	Station	Target Availability / Capacity Index (%)	Approved for FY 2014-15 in the MYT Order for FY 2013-16 (%)	APGCL Petition (%)
1	NTPS	50.0	52.6	55.0
2	LTPS	50.0	61.0	61.0
3	KLHEP	90.0	90.0	90.0

APGCL shall be eligible to recover full fixed charges if the actual Availability / Capacity Index is higher than the target Availability / Capacity Index specified in the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.

7.4.2 Plant Load Factor (PLF)

The Plant Load Factor approved by the Commission for FY 2014-15 and the revised Plant Load Factor projected by APGCL is shown in the Table below:

Table 7.3: Revised Plant Load Factor projected for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16 (%)	APGCL Petition (%)
1	NTPS	50.0	50.0
2	LTPS with WHRU	55.8	61.2
3	KLHEP	44.5	44.5
4	NRPP	72.7	-

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16 (%)	APGCL Petition (%)
5	Myntriang SHEP-Stage I (6 MW)	87.1	-
6	Myntriang SHEP-Stage II (3 MW)	80.8	43.3
7	Lungnit SHEP-Stage II (3 MW)	76.7	-

In reply to the Commission's query, APGCL submitted that due to delay in execution of NRPP, Myntriang SHEP Stage I and Lungnit SHEP Stage II, these projects would not get commissioned in FY 2014-15 and hence, these have not been considered in the revised projections for FY 2014-15.

Considering the progress of works in new projects, the Commission, in this Order, has considered the revised PLF as projected by APGCL for FY 2014-15. The PLF approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.4: Approved Plant Load Factor for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15
1	NTPS	50.0
2	LTPS with WHRU	61.2
3	KLHEP	44.5
4	Myntriang SHEP-Stage II (3 MW)	43.3

7.4.3 Auxiliary Energy Consumption

The Auxiliary Energy Consumption approved by the Commission for FY 2014-15 and the revised Auxiliary Energy Consumption projected by APGCL is shown in the Table below:

Table 7.5: Revised Auxiliary Energy Consumption projected for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16 (%)	APGCL Petition (%)
1	NTPS	4.5	5.2
2	LTPS with WHRU	5.5	8.3

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16 (%)	APGCL Petition (%)
3	KLHEP	0.5	0.5
4	NRPP	4.5	-
5	Myntriang SHEP-Stage I (6 MW)	0.5	-
6	Myntriang SHEP-Stage II (3 MW)	0.5*	1.0
7	Lungnit SHEP-Stage II (3 MW)	0.5	-

Note: * - The Commission has approved the Auxiliary Energy Consumption for Myntriang SHEP as 1%, in the Review Order dated July 07, 2014. .

The revised Auxiliary Energy Consumption projected by APGCL for NTPS and LTPS is higher than that approved by the Commission. As Auxiliary Energy Consumption is a performance parameter, the Commission, in this Order, has approved the same Auxiliary Energy Consumption for FY 2014-15 as approved for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. The Auxiliary Energy Consumption approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.6: Approved Auxiliary Energy Consumption for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15 (%)
1	NTPS	4.5
2	LTPS with WHRU	5.5
3	KLHEP	0.5
4	Myntriang SHEP-Stage II (3 MW)	1.0

7.4.4 Gross Generation and Net Generation

The gross generation and net generation approved by the Commission for FY 2014-15 and the revised gross generation and net generation projected by APGCL is shown in the Table below:

Table 7.7: Revised Gross Generation and Net Generation projected for FY 2014-15
(MU)

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16		APGCL Petition	
		Gross	Net	Gross	Net
1	NTPS	219.00	209.15	523.09	495.70
2	LTPS with WHRU	768.27	726.01	842.47	772.79
3	NRPP	510.74	487.75	0.00	0.00
4	Total Thermal	1498.01	1422.91	1365.56	1268.50
5	KLHEP	390.00	388.05	390.00	388.05
6	Myntriang SHEP Stage I	59.54	59.24	0.00	0.00
7	Myntriang SHEP Stage II			11.38	11.26
8	Lungnit SHEP	6.64	6.61	0.00	0.00
9	Total APGCL	1954.19	1876.81	1766.94	1667.81

In reply to the Commission's query, APGCL submitted that the variation in projections of generation from that approved by the Commission is on account of non-commissioning of new Stations, which were originally proposed to be commissioned in FY 2014-15. The Commission, in this Order, has approved the gross generation based on the approved PLF and net generation based on the approved Auxiliary Energy Consumption. The gross generation and net generation approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.8: Approved Gross Generation and Net Generation for FY 2014-15
(MU)

Sl. No.	Station	Approved for FY 2014-15	
		Gross	Net
1	NTPS	523.09	499.55
2	LTPS with WHRU	842.47	796.14
A	Total Thermal	1365.56	1295.68
3	KLHEP	390.00	388.05
4	Myntriang SHEP Stage II	11.38	11.26
B	Total Hydro	401.38	399.31
C	Total APGCL (A + B)	1766.94	1695.00

7.4.5 Gross Station Heat Rate

The Gross Station Heat Rate approved by the Commission for FY 2014-15 and the revised Gross Station Heat Rate projected by APGCL is shown in the Table below:

Table 7.9: Revised Gross Station Heat Rate projected for FY 2014-15
(kcal/kWh)

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition
1	NTPS	3266	4170
2	LTPS with WHRU	2792	4010
3	NRPP	2071	-

As Gross Station Heat Rate is a controllable parameter, for NTPS, the Commission has considered the Gross Station Heat Rate for FY 2014-15 as approved in the MYT Order for FY 2013-14 to FY 2015-16. For LTPS, the Commission has approved the Gross Station Heat Rate for FY 2014-15 at the same level as computed by the Commission for FY 2013-14 based on the actual gross generation in open cycle and with WHRU, as submitted by APGCL. The Commission has observed that the Gross Station Heat Rate for LTPS with WHRU is consistently increasing every year. The Commission has observed that the reason for increase in Gross Station Heat Rate is the decreasing trend in the generation from WHRU in proportion to the total generation of LTPS. The Commission is of the view that the decreasing trend of generation from WHRU is not acceptable, as APGCL is being allowed its legitimate expenses on the capital expenditure incurred for WHRU. The Commission cautions that such poor performance of APGCL shall qualify for being treated as inefficiency and appropriate disallowance of fuel cost. **The Commission directs APGCL to make full use of its generation capacity and operate in the most efficient manner, in order to achieve the approved Gross Station Heat Rate.**

The Gross Station Heat Rate approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.10: Approved Gross Station Heat Rate for FY 2014-15
(kcal/kWh)

Sl. No.	Station	Approved for FY 2014-15
1	NTPS	3266
2	LTPS with WHRU	2872

7.4.6 Fuel Cost

The weighted average GCV and landed price of gas approved by the Commission for FY 2014-15 and the revised weighted average GCV and landed price of gas projected by APGCL is shown in the Table below:

Table 7.11: Revised Weighted average GCV and landed price of gas projected for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15 in the MYT Order for FY 2013-16		APGCL Petition	
		Wt. Avg. GCV of Gas (kcal/SCM)	Wt. Avg. price of Gas (including transport) (Rs./1000 SCM)	Wt. Avg. GCV of Gas (kcal/SCM)	Wt. Avg. price of Gas (including transport) (Rs./1000 SCM)
1	NTPS	9182.00	5904.16	9157.50	6275.19
2	LTPS with WHRU	9527.00	7161.25	9432.42	8172.02
3	NRPP	9182.00	5904.16	-	-

APGCL, in its Petition, submitted that as per the correspondence with Brahmaputra Crackers & Polymer Limited (BCPL), it was expected to receive lean gas from July, 2014. Thereafter, APGCL submitted the revised fuel cost computations for FY 2014-15 based on the actual weighted average GCV and landed price of gas for the 1st Quarter of FY 2014-15. APGCL has proposed the fuel cost for FY 2014-15 as shown in the Table given below:

Table 7.12: Fuel Cost proposed by APGCL for FY 2014-15

S. No.	Particulars	Derivation	Unit	NTPS	LTPS with WHRU	Total
1	Gross Generation	A	MU	523.09	842.47	1365.56
2	Heat Rate	B	kcal/kWh	4170.00	4010.00	
3	GCV of gas	C	kcal/SCM	9157.50	9432.42	
4	Overall Heat	D=AxB	G. cal.	2181274.83	3378313.92	

S. No.	Particulars	Derivation	Unit	NTPS	LTPS with WHRU	Total
5	Gas consumption	E=D/C	M. SCM	238.20	358.16	596.36
6	Price of Gas	F	Rs./1000 SCM	6275.19	8172.02	
7	Total cost of Gas	G=ExF/100	Rs. Lakh	14947.22	23604.89	38552.11
8	Auxiliary Consumption	H	%	5.24%	8.27%	
9	Auxiliary Consumption	I=AxH	MU	27.38	69.68	
10	Net Generation	J=A-I	MU	495.70	772.79	
11	Fuel Cost per Unit (Gross)	K=G/A/10	Rs./kWh	2.86	2.80	
12	Fuel Cost per Unit (Net)	L=G/J/10	Rs./kWh	3.02	3.05	

The Commission, in this Order, has considered the weighted average GCV and landed price of gas as submitted by APGCL for FY 2014-15. The weighted average GCV and landed price of gas approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.13: Approved Weighted average GCV and landed price of gas for FY 2014-15

Sl. No.	Station	Approved for FY 2014-15	
		Wt. Avg. GCV of Gas (kcal/SCM)	Wt. Avg. price of Gas (including transport) (Rs./1000 SCM)
1	NTPS	9157.50	6275.19
2	LTPS with WHRU	9432.42	8172.02

Any variation in the GCV and price of gas from that approved by the Commission may be claimed under FPPPA and shall be considered in the true-up for FY 2014-15.

The Commission has approved the fuel cost of Rs. 275.27 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has projected the revised fuel cost of Rs. 385.52 Crore. The fuel cost approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.14: Approved fuel cost for FY 2014-15

Sl. No.	Particulars	Derivation	Unit	NTPS	LTPS with WHRU	Total
1	Gross Generation	A	MU	523.09	842.47	1365.56
2	Heat Rate	B	kcal/kWh	3266.00	2872.00	
3	GCV of gas	C	kcal/SCM	9157.50	9432.42	
4	Overall Heat	D=AxB	G. cal.	1708403.74	2419580.47	4127984.21
5	Gas consumption	E=D/C	M. SCM	186.56	256.52	443.08
6	Price of Gas	F	Rs./1000 SCM	6275.19	8172.02	
7	Total cost of Gas	G=ExF/100	Rs. Lakh	11706.86	20962.67	32669.54
8	Auxiliary Consumption	H	%	4.50%	5.50%	
9	Auxiliary Consumption	I=AxH	MU	23.54	46.34	69.87
10	Net Generation	J=A-I	MU	499.55	796.14	1295.68
11	Fuel Cost per Unit (Gross)	K=G/A/10	Rs./kWh	2.24	2.49	2.39
12	Fuel Cost per Unit (Net)	L=G/J/10	Rs./kWh	2.34	2.63	2.52

Accordingly, the Commission has approved the fuel cost of Rs. 326.70 Crore for FY 2014-15 in the approval of revised ARR and generation tariff for FY 2014-15.

7.4.7 Escalation Index

Regulation 36 of the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 specifies as under:

“.....

36.2 The generating company shall prepare a budget for Operation and Maintenance Expenses indicating for each head of account actual expenditure of the last year, estimate for the current year and projection for the next year and submit it to the Commission along with the tariff petition.

36.3 The Commission shall verify the budget estimates and projections and allow the amount depending on its views about the reasonableness of the projections.

.....”

The Commission, in the MYT Order for FY 2013-14 to FY 2015-16, has approved the escalation factors for projecting the O&M expenses as 8% for employee expenses and R&M expenses and 6% for A&G expenses.

The Commission has observed that the actual O&M expenses for APGCL have been increasing at year-on-year rates higher than 8% and hence, finds the need to revise the escalation factor for projecting the O&M expenses. The Commission is of the view that as the O&M expenses are dependent on the prevailing rate of inflation based on WPI and CPI, the escalation factor for projecting the O&M expenses needs to be derived based on the prevailing CPI and WPI. The Commission has computed the year-on-year inflation for FY 2013-14 based on the weighted average of CPI and WPI in the ratio of 60:40. The Commission has considered the same inflation rate for projecting all the O&M expenses for FY 2014-15. The inflation rate computed by the Commission for projecting the O&M expenses for FY 2014-15 is shown in the Table below:

Table 7.15: Escalation rate for O&M expenses

Particulars	WPI			CPI			Consolidated Index		
	FY 13	FY 14	FY 15	FY 13	FY 14	FY 15	FY 13	FY 14	FY 15
April	164	171		205	226		188	204	
May	164	171		206	228		189	205	
June	165	173		208	231		191	208	
July	166	176		212	235		194	211	
August	167	179		214	237		195	214	
September	169	181		215	238		197	215	
October	169	181		217	241		198	217	
November	169	182		218	243		198	218	
December	169	180		219	239		199	215	
January	170	179		221	237		201	214	
February	171	180		223	238		202	215	
March	170	180		224	239		202	216	
Average	168	178		215	236		196	213	
Weighted Average Inflation Rate								8.42%	8.42%

7.4.8 Operation and Maintenance (O&M) expenses

The Operation and Maintenance (O&M) expenses comprise of employee expenses, Repair and Maintenance (R&M) expenses and Administration and General (A&G) expenses.

7.4.8.1 Employee expenses

The employee expenses approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16 and the revised employee expenses projected by APGCL is shown in the Table below:

Table 7.16: Revised employee expenses projected for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition
Gross employee expenses	85.01	98.56
Less: Capitalisation	8.63	12.35
Net employee expenses	76.39	86.21

APGCL submitted that the revised employee expenses for FY 2014-15 have been projected by escalating the employee expenses for FY 2013-14 with the escalation rate of 8% as approved by the Commission in the MYT Order for FY 2013-14 to FY 2015-16. The Commission, in this Order, has approved the employee expenses for FY 2014-15 by escalating the trued up employee expenses for FY 2012-13 by the approved escalation factor for FY 2013-14 and FY 2014-15. The Commission has restricted the component-wise employee expenses to that proposed by APGCL. The Commission has considered the capitalisation of employee expenses in the same proportion as approved for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. The employee expenses approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.17: Approved employee expenses for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15
Gross employee expenses	84.31
Less: Capitalisation	8.56
Net employee expenses	75.75

7.4.8.2 Repair and Maintenance (R&M) expenses

The R&M expenses approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16 and the revised R&M expenses projected by APGCL is shown in the Table below:

Table 7.18: Revised R&M expenses projected for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition
R&M expenses	16.10	17.11

APGCL submitted that the revised R&M expenses for FY 2014-15 has been projected by escalating the R&M expenses approved by the Commission for FY 2013-14 in the MYT Order for FY 2013-14 to FY 2015-16, by the escalation rate of 15%. APGCL submitted that escalation rate of 8% approved by the Commission for projecting the R&M expenses is on the lower side. The Commission has trued up the R&M expenses for FY 2012-13 as Rs. 20.58 Crore. The revised R&M expenses projected by APGCL for FY 2014-15 are lower than the trued up R&M expenses for FY 2012-13. The Commission is of the view that one-time expenses need to be excluded while projecting the R&M expenses. As the revised R&M expenses projected by APGCL for FY 2014-15 are lower than the trued up R&M expenses for FY 2012-13, the Commission, in this Order, has approved the R&M expenses as proposed by APGCL for FY 2014-15. The R&M expenses approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.19: Approved R&M expenses for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15
R&M Expenses	17.11

7.4.8.3 Administration and General (A&G) expenses

The A&G expenses approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16 and the revised A&G expenses projected by APGCL is shown in the Table below:

Table 7.20: Revised A&G expenses projected for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition
Gross A&G expenses	6.42	9.64
Less: Capitalisation	1.66	2.90
Net A&G expenses	4.76	6.74
Add: Energy bill paid to APDCL	-	2.03
Total A&G expenses	4.76	8.77

APGCL submitted that revised A&G expenses for FY 2014-15 have been projected based on the past trend. The Commission, in this Order, has approved the A&G expenses for FY 2014-15 by escalating the trued up A&G expenses for FY 2012-13 by the escalation factor approved for FY 2013-14 and FY 2014-15. The Commission has restricted the component-wise A&G expenses to that proposed by APGCL. The Commission has considered the capitalisation of A&G expenses in the same proportion as approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. A&G expenses are controllable expenses and APGCL should ensure that the expenses are within the amounts approved by the Commission. Such steep increase in the A&G expenses, as sought by APGCL, cannot be allowed. The A&G expenses approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.21: Approved A&G expenses for FY 2014-15**(Rs. Crore)**

Particulars	Approved for FY 2014-15
Gross A&G expenses	6.33
Less: Capitalisation	1.64
Net A&G expenses	4.70

7.4.9 Investment Plan

The Commission has approved the Investment Plan of Rs. 756.92 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has projected the revised Investment Plan of Rs. 508.45 Crore. APGCL has submitted the reasons for the revised Investment Plan for FY 2014-15, which have been scrutinised by the Commission. The Commission has also scrutinised the submissions of APGCL regarding the current status of its upcoming generating Stations. The Commission, in this Order, has approved the investment Plan for FY 2014-15 after prudence check of the submissions of the Petitioner as shown in the Table below:

Table 7.22: Approved Investment Plan for FY 2014-15**(Rs. Crore)**

Sl. No.	Particulars	Approved in the MYT Order	APGCL Petition	Approved for FY 2014-15	Remarks
1	NTPS	0.00	6.85	6.85	In compliance to the directive of the Commission, APGCL has submitted the DPR for renovation and modernization works. Hence, the Commission has approved the proposed investment.
2	LTPS	0.00	35.70	35.70	
3	KLHEP	0.00	5.82	5.82	
4	NRPP	693.92	165.00	165.00	The Commission has approved the proposed investment as NRPP is an ongoing project.
5	LRPP	0.00	134.10	1.00	The Commission has approved investment towards LRPP based on the actual progress of the Project.

Sl. No.	Particulars	Approved in the MYT Order	APGCL Petition	Approved for FY 2014-15	Remarks
6	Margherita TPP	0.00	5.00	0.00	The Commission has not approved the proposed investment as the coal availability for the project is uncertain.
7	Myntriang SHEP	42.00	0.00	0.00	
8	Lungnit SHEP	21.00	22.00	22.00	The Commission has approved the proposed investment as Lungnit SHEP is an ongoing project.
9	Cachar Distributed Generation System by Gas IC Engine	0.00	43.00	0.00	The Commission has not approved the proposed investment as the implementation of the Project is dependent on the availability of gas, which is not certain.
10	SPV Project at Amguri	0.00	0.25	0.00	The Commission has not approved the proposed investment as it does not fall under the purview of the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006.
11	Lower Kopili	0.00	90.00	0.00	The Commission has not approved the proposed investment as TEC is not yet accorded by CEA for the Project.
12	Boundary wall at Jagiroad for KLHEP Store	0.00	0.33	0.33	
13	Feasibility Study for Pumped Storage HEP	0.00	0.40	0.00	The Commission has not approved the proposed investment as capital expenditure towards Feasibility Study cannot be allowed.
	Total	756.92	508.45	236.70	

The Commission has approved the Capital Investment of Rs. 236.70 Crore as against the revised capital investment of Rs. 508.45 Crore projected by APGCL, in the approval of revised ARR and generation tariff for FY 2014-15.

7.4.10 Financing of the Capital Investment

The financing of the Capital Investment approved by the Commission for FY 2014-15

in the MYT Order for FY 2013-14 to FY 2015-16 is shown in the Table below:

Table 7.23: Financing of the Capital Investment for FY 2014-15 approved by the Commission in the MYT Order for FY 2013-14 to FY 2015-16

Sl. No.	Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16
	Financing of Capital Investment	
1	State Govt. Loan	17.28
2	PFC Loan	557.28
3	Others	6.84
4	Grant	175.52
5	Equity	0.00
	Total	756.92

APGCL has submitted the revised Investment Plan for FY 2014-15 and the corresponding financing for the proposed Capital Investment. The Commission, in this Order has approved the financing plan for the revised approved Investment Plan based on the financing proposed by APGCL. The financing plan approved by the Commission for FY 2014-15 in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.24: Revised Financing Plan for Capital Investment for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars		FY 2014-15					Total
			GoA Equity	GoA Loan	GoA Grant	PFC Loan	Others	
1	NTPS	APGCL Petition	0.00	6.85	0.00	0.00	0.00	6.85
		Approved	0.00	6.85	0.00	0.00	0.00	6.85
2	LTPS	APGCL Petition	0.00	23.20	0.00	0.00	12.50	35.70
		Approved	0.00	23.20	0.00	0.00	12.50	35.70
3	KLHEP	APGCL Petition	0.00	5.82	0.00	0.00	0.00	5.82
		Approved	0.00	5.82	0.00	0.00	0.00	5.82
4	NRPP	APGCL Petition	0.00	15.00	0.00	150.00	0.00	165.00
		Approved	0.00	15.00	0.00	150.00	0.00	165.00
5	LRPP	APGCL Petition	54.90	0.60	0.00	0.00	78.60	134.10
		Approved	0.00	0.60	0.00	0.00	0.40	1.00

Sl. No.	Particulars		FY 2014-15					
			GoA Equity	GoA Loan	GoA Grant	PFC Loan	Others	Total
6	Margherita TPP	APGCL Petition	0.00	5.00	0.00	0.00	0.00	5.00
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
7	Myntriang SHEP	APGCL Petition	0.00	0.00	0.00	0.00	0.00	0.00
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
8	Lungnit SHEP	APGCL Petition	0.00	0.00	12.00	0.00	10.00	22.00
		Approved	0.00	0.00	12.00	0.00	10.00	22.00
9	Cachar Distributed Generation System by Gas IC Engine	APGCL Petition	0.00	0.00	0.00	0.00	43.00	43.00
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
10	SPV Project at Amguri	APGCL Petition	0.00	0.25	0.00	0.00	0.00	0.25
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
11	Lower Kopili	APGCL Petition	75.00	15.00	0.00	0.00	0.00	90.00
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
12	Boundary wall at Jagiroad for KLHEP Store	APGCL Petition	0.00	0.33	0.00	0.00	0.00	0.33
		Approved	0.00	0.33	0.00	0.00	0.00	0.33
13	Feasibility Study for Pumped Storage HEP	APGCL Petition	0.00	0.40	0.00	0.00	0.00	0.40
		Approved	0.00	0.00	0.00	0.00	0.00	0.00
	Total	APGCL Petition	129.90	72.45	12.00	150.00	144.10	508.45
		Approved	0.00	51.80	12.00	150.00	22.90	236.70

7.4.11 Depreciation

The Commission has approved the depreciation of Rs. 29.64 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has projected the revised depreciation of Rs. 32.61 Crore for FY 2014-15.

The Commission, in this Order, has considered the closing GFA for FY 2013-14, as per the Provisional Annual Accounts, as the opening GFA for FY 2014-15. The Commission has approved the GFA addition of Rs. 756.92 Crore for FY 2014-15 towards NRPP, Myntriang SHEP, and Lungnit SHEP in the MYT Order for FY 2013-14 to FY 2015-16. APGCL has proposed the revised GFA addition of Rs. 30.85 Crore for FY 2014-15. As NRPP, Myntriang SHEP Stage I and Lungnit SHEP Stage II are

not going to be commissioned in FY 2014-15, the Commission has revised the GFA addition for FY 2014-15. Further, the Commission has considered the closing value of assets created out of grants/subsidies and consumer contributions for FY 2013-14 as the opening value for FY 2014-15 and the addition in FY 2014-15 as per the approved financing plan for FY 2014-15. The Commission has considered the GFA addition of Rs. 30.85 Crore as proposed by APGCL for FY 2014-15. The depreciation approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Tables below:

Table 7.25: Approved Depreciation for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	All Stations				Rate of depreciation	Depreciation as per AERC Regulations
		GFA 01.04.2014	Additions during FY 2014-15	Deductions during FY 2014-15	Closing GFA		
1	Land & Rights	20.79	0.00	0.00	20.79	0.00%	0.00
2	Building	45.29	0.00	0.00	45.29	1.80%	0.73
3	Hydraulic	161.09	0.00	0.00	161.09	2.57%	3.73
4	Other Civil Works	188.76	0.00	0.00	188.76	1.80%	3.06
5	Plant & Machinery Gas	490.74	28.05	0.00	518.79	6.00%	27.26
6	Plant & Machinery Hydel	193.54	2.80	0.00	196.34	2.57%	4.51
7	Lines & Cable Network	44.66	0.00	0.00	44.66	2.57%	1.03
8	Vehicles	1.24	0.00	0.00	1.24	18.00%	0.20
9	Furniture & Fixtures	4.33	0.00	0.00	4.33	6.00%	0.23
10	Office Equipment	1.18	0.00	0.00	1.18	6.00%	0.06
11	Capital spares at Generating Stations	174.10	0.00	0.00	174.10	4.75%	7.44
12	TOTAL	1325.71	30.85	0.00	1356.56		48.26
13	Average Assets of OB & CB in 2011-12 (excluding land value)	1320.35				3.66%	
14	Average capital subsidy & contributions/grants	386.38					12.71
15	Depreciation for the year						35.55

Table 7.26: Approved Depreciation on assets created out of grants/subsidies and consumer contributions for FY 2014-15

Particulars	Rs. Crore
Grants & subsidies as on 01/04/2014	380.38
Grants & subsidies as on 01/04/2015	392.38
Average grants & subsidies	386.38
Depreciation on 90% of the Assets funded by grants/subsidies	12.71

7.4.12 Interest and Finance Charges

The Commission has approved the interest and finance charges of Rs. 30.31 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has projected the revised interest and finance charges of Rs. 41.04 Crore for FY 2014-15.

The Commission, in this Order, has considered the closing loan balances for FY 2013-14, as the opening loan balances for FY 2014-15. The loan addition during the year has been considered as approved in the financing plan. Repayment during the year has been considered as proposed by APGCL. The Commission has considered the actual interest rates for FY 2013-14 for computing the interest expenses for FY 2014-15. For new loans, the Commission has considered the weighted average interest rate of actual loans. The Commission has considered the finance charges in the proportion of actual finance charges for FY 2012-13. The Commission has considered the capitalisation of interest expenses in the same proportion as proposed by APGCL. The interest and finance charges approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.27: Approved interest and finance charges for FY 2014-15 (Rs. Crore)

Sl. No.	Particulars	FY 2014-15					
		Opening Balance	Receipts	Repayments	Closing Balance	Rate of interest	Interest
1	PFC	333.51	150.00	22.97	460.54	11.71%	46.48
2	State Govt. Loan	115.93	51.80	9.23	158.50	10.50%	14.41
3	FI Loan	0.00	22.90	0.83	22.07	11.40%	1.26
4	Total	449.44	224.70	33.03	641.11	11.40%	62.14
5	Other Finance Charges						0.56

Sl. No.	Particulars	FY 2014-15					
		Opening Balance	Receipts	Repayments	Closing Balance	Rate of interest	Interest
6	Less: Interest capitalised						30.42
7	Net Interest and finance charges						32.14

7.4.13 Interest on Working Capital

The interest on working capital approved by the Commission for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16 and the revised interest on working capital projected by APGCL is shown in the Table below:

Table 7.28: Revised Interest on Working Capital projected for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition
Fuel Cost (1 month)	22.94	58.51
O&M expenses (1 month)	8.1	8.88
Maintenance spares	8.79	12.93
Receivables (2 months)	79.49	151.90
Total Working Capital	119.32	231.72
Rate of Interest on Working Capital	14.75%	14.75%
Interest on Working Capital	17.60	34.18

The Commission has approved the normative interest on working capital for FY 2014-15 in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The interest on working capital approved by the Commission for FY 2014-15 in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.29: Approved Interest on Working Capital for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15
Fuel Cost (1 month)	23.64
O&M expenses (1 month)	8.13

Particulars	Approved for FY 2014-15
Maintenance spares	13.26
Receivables (2 months)	84.31
Total Working Capital	129.34
Rate of Interest on Working Capital	14.75%
Interest on Working Capital	19.08

7.4.14 Return on Equity

The Commission has approved the Return on Equity of Rs. 37.99 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has projected the Return on Equity of Rs. 42.06 Crore considering the rate of Return on Equity of 15.50% and the equity base approved by the Commission in the MYT Order for FY 2013-14 to FY 2015-16. The Commission, in this Order, has approved the Return on Equity on the approved equity base at the rate of 14% in accordance with AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The Return on Equity approved by the Commission in the approval of revised ARR and generation tariff for FY 2014-15 is shown in the Table below:

Table 7.30: Approved Return on Equity for FY 2014-15

(Rs. Crore)

Particulars	NTPS	LTPS with WHRU	KLHEP	LWHRP	Total
Equity capital as on 01/04/2014	63.31	69.03	68.11	70.92	271.37
Rate of RoE considered	14%	14%	14%	14%	14%
RoE approved for FY 2014-15	8.86	9.66	9.54	9.93	37.99

7.4.15 Income Tax

The Commission has approved the income tax of Rs. 0.93 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has proposed the income tax of Rs. 12.76 Crore. **The Commission, in this Order, has approved the income tax of Rs. 0.93 Crore for FY 2014-15 as approved in the MYT Order for FY 2013-14 to FY 2015-16.**

7.4.16 Other Income

The Commission has approved the other income of Rs. 12.09 Crore for FY 2014-15 in the MYT Order for FY 2013-14 to FY 2015-16. As against the same, APGCL has proposed the other income of Rs. 7.98 Crore. The Commission, in this Order, has approved the other income for FY 2014-15 by escalating the other income for FY 2013-14 as per the provisional Annual Accounts by 10% in accordance with past trend and as considered in the MYT Order. Thus, **the Commission has approved the other income of Rs. 11.59 Crore for FY 2014-15 in the approval of revised ARR and generation tariff for FY 2014-15.**

7.4.17 Revised ARR for FY 2014-15

Based on the above analysis, the revised ARR approved by the Commission for FY 2014-15 is shown in the Table below:

Table 7.31: Approved ARR for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition	Approved for FY 2014-15
A	Fixed Charges			
1	Operation and Maintenance expenses			
1.1	Employee expenses	76.39	86.21	75.75
1.2	Repair and Maintenance expenses	16.10	17.11	17.11
1.3	Administrative and General expenses	4.76	8.77	4.70
2	Interest and Finance Charges	30.31	41.04	32.14
3	Interest on Working Capital	17.60	34.18	19.08
4	Income Tax	0.93	12.76	0.93
5	Depreciation	29.64	32.61	35.55
6	Return on Equity	37.99	42.06	37.99
7	Less: Other Income	12.09	7.98	11.59
8	Total Fixed Charges	201.64	266.75	211.66
B	Fuel Cost	275.27	385.52	326.70
C	True-up for FY 2012-13	0.00	151.60	-16.79
D	Impact of revised true-up for FY 2011-12			27.26
E	Annual Revenue Requirement	476.91	803.87	548.83

Sl. No.	Particulars	Approved for FY 2014-15 in the MYT Order for FY 2013-16	APGCL Petition	Approved for FY 2014-15
Generation Tariff				
A	Power Generation (MU)			
1	Gross Generation	1954.19	1766.94	1766.94
2	Auxiliary Consumption	77.38	99.13	71.94
3	Net Generation	1876.81	1667.81	1695.00
B	Generation Tariff (Sent Out) (Rs./kWh)			
1	Fixed Cost	1.07	2.51	1.31
2	Fuel Cost	1.47	2.31	1.93
3	Tariff	2.54	4.82	3.24

Thus, the Commission has approved the revised ARR of Rs. 548.83 Crore for FY 2014-15 as against the ARR of Rs. 803.87 Crore projected by APGCL.

7.4.18 Generation Tariff for FY 2014-15

The generation tariff includes separate energy charges for NTPS and LTPS (on energy sent out basis) and monthly fixed charges for APGCL. The approved generation tariff for FY 2014-15 is shown in the Table below:

Table 7.32: Revised approved Generation Tariff for FY 2014-15

Energy Charge (Net) (Rs./kWh)	FY 2014-15
NTPS	2.34
LTPS with WHRU	2.63
KLHEP	0.00
Fixed Charges	Rs. Crore
Total Fixed Charges	222.13
Monthly Fixed Charges	18.51

Note: The Station-wise Fixed Charges could not be approved for APGCL as the Station-wise details of fixed costs are not available.

7.4.19 Effectuation of Generation Tariff

The approved rate of Energy Charge and Fixed Charge shall be effective from December 1, 2014 till it is replaced by another Order of the Commission.

APGCL has to file the Petition for approval of revised ARR and generation tariff for FY 2015-16 along with true-up for FY 2013-14 and Annual Performance Review for FY 2014-15 latest by December 1, 2014.

8 Compliance of Directives & New Directives

The Commission has issued certain directives to APGCL with an objective of attaining operational efficiency and streamlining the flow of information, which would be beneficial to the sector and the Petitioner both in the short-term and long-term. This Chapter deals with the compliance status and the Commission's views thereon as well as the summary of new directions for compliance and implementation by APGCL.

8.1 COMPLIANCE OF DIRECTIVES ISSUED IN THE MYT ORDER FOR FY 2013-14 TO FY 2015-16 DATED NOVEMBER 21, 2013

The Commission's comments on the status of compliance to the directives are given below:

Directive-1: Auxiliary Consumption (NTPS and LTPS)

The efforts should continue and the Auxiliary Consumption levels of both the Stations need to be brought down to the levels specified in the Regulations.

APGCL's Compliance

APGCL submitted that the measures being taken to reduce Auxiliary Consumption along with the Report on action already taken as per the recommendations of the energy audit done by NPC has been submitted to the Commission vide Letter No. APGCL/CGM (G)/AERC/2012-13/115/Pt-VIII/43 dated January 24, 2014. APGCL further submitted that all necessary measures are being implemented to reduce the Auxiliary Energy Consumption to the extent possible. LTPS and NTPS, being a designated consumer of Bureau of Energy Efficiency (BEE) under Perform, Achieve and Trade (PAT) Scheme, have been given a specific target and APGCL is following the suggested procedures prescribed in the energy audit Report to achieve targets as fixed by the Ministry of Power, GOI/ BEE under PAT Scheme.

Commission's Comments

The Commission has taken note of APGCL's submissions. The Commission acknowledges the efforts of APGCL in reducing the Auxiliary Energy Consumption.

However, the Commission is of the view that the targets specified under PAT Scheme are altogether for a different purpose and APGCL should strive to reduce the Auxiliary Consumption of NTPS and LTPS to the normative levels specified in the Regulations.

Directive-2: Employee's Provident Fund

The Commission again directs APGCL to pursue the matter with the Govt. of Assam, and the formalities of forming the Trust should be completed as early as possible.

APGCL's Compliance

APGCL submitted that the reply from GoA for earlier correspondence is awaited and the matter is presently being pursued with GoA.

Commission's Comments

The Commission again directs APGCL to vigorously pursue the matter with the Govt. of Assam, and complete the formalities of forming the Trust as early as possible.

Directive-3: Procurement of Gas

APGCL should make all out efforts to procure committed quantity of gas and to get additional allotments, to overcome the generation problem. The efforts made and the outcome should be periodically reported to the Commission.

APGCL's Compliance

APGCL submitted that it has made all out efforts to get the gas supply as per commitment and also to get allotment of additional gas supply to overcome the serious setback of poor generation of power in the State. APGCL submitted that as regards its proposal to NLCPR for funding of a dedicated pipeline for LTPS, GoA has included this project in the priority list of project proposals under NLCPR for FY 2014-15 sent to the Ministry of DONER vide Letter No. PDP (PP) 22/2013/57 dated February 17, 2014.

Commission's Comments

Noted. APGCL should submit a quarterly report to the Commission on the efforts made to procure committed quantity of gas and to get additional allotments, to overcome the generation problem, and the outcome of such efforts.

Directive-3: Performance Parameters

APGCL should expedite the on-going Renovation & Modernisation schemes and ensure timely completion of the projects.

APGCL's Compliance

APGCL submitted that in order to improve the performance of NTPS and LTPS, it has initiated extensive Renovation & Modernisation programme. Namrup Replacement project of capacity 1x100 MW is being implemented and replacement of the Phase I (4x15 MW) Units of LTPS by higher efficiency Gas Engines is also being taken up. Further, the Phase II (3x20 MW) Units of LTPS are being given due consideration while formulating Renovation & Modernisation Schemes to achieve sustained generation in view of its tied up 37.2 MW Waste Heat Unit.

APGCL submitted that as a result of implementation of various Renovation & Modernisation schemes during the last seven years, the performance of NTPS and LTPS in terms of Generation, PLF, Availability and Station Heat Rate have improved considerably. However, NTPS and LTPS being very old Stations, face unforeseen breakdowns, which impact their performance.

Commission's Comments

APGCL should expedite the on-going Renovation & Modernisation schemes and ensure timely completion of the projects.

Directive-4: Monitoring of Progress of New Power Projects

APGCL is directed to submit quarterly progress report on time on regular basis.

APGCL's Compliance

APGCL submitted that Progress Reports on new and on-going Renovation & Modernisation and thermal projects for the 3rd and 4th quarters of FY 2013-14 were submitted to the Commission vide Letter No. APGCL/CGM (G)/AERC/2011-12/115/Pt/22 dated January 28, 2014 and vide Letter No. APGCL/CGM (G)/AERC/2011-12/115/Pt/24 dated April 08, 2014, respectively. APGCL submitted that Progress Reports of on-going hydro projects for the 3rd and 4th quarters of FY 2013-14 were submitted to the Commission vide Letter No. APGCL/CGM (H)/W/2011-12/390/47 dated February 06, 2014 and vide Letter No. APGCL/CGM (H)/W/2011-12/390/58 dated May 03, 2014.

Commission's Comments

Noted. APGCL is directed to continue to submit quarterly progress report on time, on regular basis, till completion of the projects.

Directive-4: Performance of Petitioner's Plants

The final DPR with cost benefit analysis indicating life extension period shall be submitted for approval of the Commission as early as possible.

APGCL's Compliance

APGCL submitted that the DPRs of Renovation & Modernisation (Ph.-III) covering FY 2010-11 to 2012-13 of NTPS and LTPS have been submitted for post-facto approval of the Commission, vide Letter No. APGCL/CGM (G)/ AERC/ 2011-12/115/Pt.-VI/19 dated September 11, 2013.

Commission's Comments

The DPRs submitted by APGCL are being reviewed by the Commission.

Directive-5: Need for augmenting own generating capacity

APGCL shall make all out efforts to complete the on-going projects within stipulated time to avoid time and cost overruns.

APGCL's Compliance

Details of on-going and upcoming power projects of APGCL and brief status of each project have been submitted.

Commission's Comments

The progress of on-going projects is not satisfactory and there have been several delays in most of the projects, especially NRPP. APGCL should make all out efforts to complete the on-going projects, including NRPP, within the stipulated time to avoid time and cost overruns.

Directive-6: Submission of DPR for Renovation & Modernisation Schemes

The Commission directs APGCL to include the major overhauling in the scope of work of Renovation and Modernisation and submit the Detailed Project Report with cost benefit analysis for approval of the Commission.

APGCL's Compliance

The DPR for Renovation and Modernisation activities of APGCL Power Stations including the Major Overhauling in the scope of Renovation & Modernisation for FY 2013-14 and FY 2014-15 has been submitted. The DPR for FY 2015-16 is under preparation and will be submitted soon.

Commission's Comments

APGCL shall submit the DPR for Renovation and Modernisation activities for FY 2015-16 along with the APR Petition for FY 2014-15.

Directive-7: Capital Cost of Small Hydro Projects

The Commission directs APGCL to submit the Petition with detailed break-up of the Capital Cost for approval of the Commission.

APGCL's Compliance

APGCL submitted that the Petition for approval of Capital Cost of Myntriang SHEP and a note regarding change of EPC contractor of Lungnit SHEP has been submitted to the Commission vide Letter No. APGCL/CGM (G)/AERC/2012-13/115/Pt-VIII/43 dated January 24, 2014.

Commission's Comments

Noted. The Commission directs APGCL to submit the Petition for Myntriang SHEP Stage I, Lungnit SHEP and all small hydro projects in future with detailed break-up of the Capital Cost for approval of the Commission.

Directive-7: Creation of Tariff Regulatory Cell

APGCL shall create/constitute a Tariff Regulatory Cell (under an Officer of status/rank not below that of General Manager or equivalent) within one month from the date of issue of this Order. The Cell so constituted/created shall be provided with necessary authority and resources so as to look after all the tariff regulatory matters primarily to provide correct and timely information to the Commission as well as stakeholders, and should be the primary source of all data and submissions being filed before the Commission, so as to ensure consistency and timeliness of the data submitted and proper co-ordination with the Commission in the tariff determination process.

APGCL's Compliance

APGCL submitted that the Tariff Regulatory Cell of APGCL has already been created and the matter has already been informed to the Commission.

Commission's Comments

Noted.

8.2 NEW DIRECTIVES

Directive-1: Implementation of on-going Projects in a timely manner

The Commission is concerned about the substantial delay in commissioning of the on-going projects, especially NRPP. The Commission directs APGCL to make all-out efforts and all necessary steps to avoid further delay, and to ensure that the projects are completed in a timely manner.

Directive-2: Filing of complete Petitions within the scheduled dates

It has been observed that the Petitions are not being filed on time, and even after filing of the Petitions, the necessary data and clarifications are not submitted on time, leading to delays in the tariff determination process. The Commission directs APGCL to ensure that the Petitions are filed on time, and all the necessary data and clarifications are submitted along with the Petition itself.

Directive-3: Calculation of depreciation in accordance with the AERC Tariff Regulations

It has been observed that APGCL does not submit the calculations of depreciation strictly in accordance with the AERC Tariff Regulations, 2006, and claims depreciation on assets funded through grants also. The Commission directs APGCL to ensure that in subsequent Petitions, the depreciation is computed strictly in accordance with the AERC Tariff Regulations, 2006.

Sd/-

(D Chakravarty)
Member, AERC

Sd/-

(Dr. R.K. Gogoi)
Member, AERC

Sd/-

(N. K. Das)
Chairperson, AERC

Annexure-1
Minutes of the 18th Meeting of the State Advisory Committee of the Assam
Electricity Regulatory Commission held on August 12, 2014 at
NEDFi House, Dispur, Guwahati

The 18th meeting of the State Advisory Committee was held at 11.00 am on 12th August, 2014, at NEDFi HOUSE, Dispur, Guwahati.

A list of members and officers present is appended at **Appendix – 1**.

At the very outset, the Secretary, AERC, welcomed all the Members of the State Advisory Committee, Special Invitees and officers present, to the 18th Meeting of the Committee. He then requested the Chairperson, AERC, Shri Naba Kumar Das, IAS (Retd) to preside over the meeting.

The Chairperson, AERC, on behalf of the Commission, extended a hearty welcome to all the Members of the State Advisory Committee, which had been recently reconstituted as per Section 87 of The Electricity Act, 2003. He stated that the State Advisory Committee is an important body with an objective to advise the Commission on manifold issues such as on all major questions of policy, matters related to quality, continuity and extent of service provided by the licensees, compliance by licensees with the conditions and requirements of their licence, protection of consumer interest; and electricity supply and overall standards of performance by utilities.

The Chairperson informed the members that Power Point presentations would be made by the representatives of the power utilities on the overall power scenario of the State and also on the petitions submitted by each of the three utilities for revision of tariff. He requested the members to take this opportunity to raise various issues and problems being faced by the consumers and offer suggestions so that effective strategies could be worked out to improve the power position of the State. He then proceeded for discussing the agenda items one by one which are briefly recorded below.

1. Agenda No. 1: Confirmation of the Minutes of the 17th meeting of the State Advisory Committee (SAC) held on 09.08.2013.

The Minutes of the 17th Meeting of the Committee was already circulated among the Members and Special Invitees. Hence, it was taken as read. No comment was received on

the minutes. With the approval of the members, the Minutes of the 17th meeting of the SAC was confirmed.

2. Agenda No. 2: Action taken on the Minutes of the 17th Meeting of SAC.

With regard to submission of Action Taken Reports on the Minutes of the aforesaid meeting, the Chairperson apprised the members that most of the actions were required to be taken by the two Utilities i.e. APGCL (Generation) and APDCL (Distribution) and hence, the officers representing these two Utilities would brief the members on the actions taken by them.

Regarding the matter of drafting Regulations for Peak Power Management which was discussed in the last meeting of the Advisory Committee, the Chairperson informed that the Commission has been looking into the matter; however, a firm conclusion is yet to be reached. He stated that the Commission was also contemplating whether some kind of peak power tariff (in categories not having TOD tariff) could be introduced in the course of finalising the tariff proposal in order to encourage consumers to adopt Demand Side Management practices. The Chairperson also raised the matter relating to payment of fixed charges to generating stations irrespective of whether power is available or not from the stations for discussion. He stated that this issue being a policy matter has to be taken up by the Commission along with the Government of Assam with the CERC and the Government of India.

A Power Point presentation was made by a representative of APGCL, showing actions taken by APGCL on the points concerning the Company as mentioned in the Minutes of the 17th Meeting of the Committee and these are briefly narrated below:

In the matter of Margherita Thermal Power Project, it was stated that the Board of APGCL by a resolution had decided to implement the Project as a Joint Venture with NEEPCO. It was informed that in this regard, a draft MOU had already been signed between APGCL and NEEPCO on 14.07.2014 and the members expressed hope that a decision would soon be taken for implementation of the Project.

So far the reduction of Auxiliary Power consumption in LTPS and NTPS is concerned, it was informed that there is a study report from National Productivity Council regarding the issue. Based on this report, APGCL had taken number of actions as a result of which, Auxiliary Energy Consumption of LTPS has been reduced to 8.8 % in FY 2013-14 from 11.5 % in FY 2012-13. Similarly, the Auxiliary Energy Consumption of NTPS is also expected to come down to 4.5% from the present 5.5% after completion of works related to shifting of distribution feeders from the NTPS 132 KV substation.

Regarding Station Heat Rate, it was stated that APGCL was incurring losses every year due to higher heat rates of the NTPS and LTPS stations than what have been approved by the Commission in its Regulations. In this connection, he referred to the proposed amendment to the Regulations by the Commission after submission of a report from IIT, Guwahati who was assigned the task of studying the Heat Rate of LTPS and NTPS. Therefore, the matter is now with the Commission for necessary action.

Regarding the ongoing/ new projects in the state, it was informed that APGCL had already submitted detailed report to the Commission. It was further informed that both units of 1.5 MW each of the Myntriang Small Hydro Project were commissioned in March 2014.

The MD, APDCL, taking permission from the Chair raised certain issues concerning the APDCL in the Meeting as stated below.

1. Regarding Load shedding, MD, APDCL stated that due to shortage of power, load shedding had to be resorted to from time to time across the state. Although, power can be purchased from the exchanges to meet the power shortage, however, such power is expensive. In this connection, he referred to the direction given by the State Advisory Committee to APDCL in the last Meeting of the Committee for constituting committees for load shedding. He informed the members that in pursuance of the above direction, APDCL had constituted two tier power committees to look into the matter of Load Shedding. The level –I committee is chaired by the MD, APDCL with all CGM(D) of the regions and CGM (Com) as members. The level-II committee is headed by GM of the respective zones with all the DGMs of the circles and R.E of the Grid S/s as members. It was informed that in case of shortage of power, the company follows the principle of preferential load and priority is given to essential services like hospitals, airports and agencies controlling the law and order situations as far as practicable. SLDC is entrusted with the implementation of the decision of the Committee and to take action accordingly.
2. Regarding installation of Prepaid Meters, it was informed that it has been made compulsory to install prepaid meters in all multi-storied buildings. It was informed that the financial and technical parameters for installation of prepaid meters in Government establishments are being examined by the Company and the State Government and it is likely to be installed from March 2015. MD, APDCL informed the members that APDCL has been taking all possible steps in this regard.
3. So far the clearance of outstanding arrears of Power Consumption bills in respect of the Government Departments is concerned, the matter had been taken up with the

State Power Department and other Government Departments including at the level of the Chief Secretary and Chief Minister of Assam. The Central payment mechanism has been proposed to be withdrawn w.e.f. April 2015 and payment responsibility will be entrusted to the concerned department.

4. It was informed that APDCL has been requesting the Central Government to allocate 500 MW firm power from Bhutan Hydroelectric projects and efforts are on to procure power from some of the power projects in Bhutan which are under construction.
5. Regarding reduction of losses, it was informed that various steps were being taken like i) cutting down extra 33/11 KV lines, commissioning of new 33/11 KV substations & installation of adequate number of DTRs ii) refurbishing of old 33/11 KV substations iii) timely completion of R-APDRP works iv) replacement of stopped/ defective meters. The Company has also tried to recover their old outstanding dues through waiver of surcharge. It was informed that the Company appointed franchisees for collection of revenue, however, there were discrepancies in depositing money by some franchisees. A new scheme has been proposed by which the bills will be prepared by the Company and the consumers will deposit the money only in the APDCL collection centres. The proposal has been placed before the APDCL Board for taking a decision in this regard.

Intervening on the matter, some members voiced their concern regarding functioning of some of the franchisees particularly in respect of revenue collection as there was no transparency in the matter. They complained that although huge amounts of revenue were collected by the franchisees, yet they did not deposit the fund to the APDCL. **Moreover, they wanted to know whether approval of the Commission was taken in the matter of appointment of Franchisees.**

The MD, APDCL assured that with the introduction of the new system already discussed there would be more transparency regarding the functioning of franchisees.

The Chairperson informed the members that although there is no provision in the Act requiring approval of the Commission for appointment of franchisees, however, the Commission has been directing APDCL to submit information on franchisees from time to time, whenever complaints were received. Endorsing the views of the Chairperson, Dr. R.K. Gogoi, Member, AERC, informed that since franchisee is an intermediary, no permission is required from the Commission for appointing

franchisees, yet the Commission gathered information on the issue from the Utility from time to time and issued directives on the issue.

However, as suggested by the members, the Commission decided to look into the present system of functioning of the franchisees so that it can be improved.

Some of the members were of the opinion that members representing consumer interests should be included in the Load Shedding Committees. **The Chairman, APDCL assured the members that the matter would be looked into.**

The members insisted that the timing of load-shedding should be publicised for information of the consumers.

The MD, APDCL informed that in an integrated system, the power position is unpredictable and changes day to day even hour to hour. Therefore, it is difficult to follow a definite load shedding schedule all over the State. As a result, it is not possible to inform the public about the expected time of load shedding. However, in case of scheduled load shedding against shutdowns for maintenance of stations, lines etc., prior information is given in local newspapers. He, however, stated that the information regarding load shedding is hosted in the APDCL website daily.

3. Agenda No. 3: Appraisal on Tariff proposal by the respective Utilities

Speaking on the occasion Shri K.V. Eapen, IAS, Chairman, APDCL, APGCL and AEGCL gave an overall view on the functioning of the above mentioned three Companies as follows:

He stated that it has been 10 years since unbundling of the state electricity board into three separate entities for generation, transmission and distribution was initiated and therefore, it was important to examine the developments that have taken place over the years. He informed that in the **distribution sector**, the position is critical as there is a shortfall of power of about 200 MW during off peak hour and 400 MW during peak hours at this time. He further informed that the Central Sector Generating Stations were able to provide hardly 60 per cent of the total state power allocation to the Company. Thus, there has been an unprecedented shortfall and the Company has to purchase power from the exchanges or through bilateral trade which involves huge financial burden affecting the financial health of the Company. Moreover, the power purchase cost from the existing generating stations has also been increasing due to increase in fuel cost. On the other hand, with implementation of

Rajiv Gandhi Vidyutikaran Yojana, consumption increased tremendously leading to manifold increase in demand. However, the recovery rate from the consumers is not commensurate with the cost of supply of power. Expansion of rural LT network has also to some extent led to the increasing loss suffered by the Utility. However, he stated that in spite of all difficulties, it is the responsibility of the Company being a public utility to extend the rural LT network and it would continue to do so.

He further informed that in order to improve the quality of power, APDCL had taken up some schemes which are likely to yield good results.

On the **generation sector**, he stated that the machines of Namrup Thermal Power Plant are extremely old and although these are still functioning despite completion of their life cycles, this would not be sustainable for long. He stated that as per discussions in the last meeting of the Advisory Committee, the Generation Company had taken several steps for increasing the generation of power. He informed that the Company was in the process of setting up of a coal-based Power Station at Margherita with 660 MW capacity in collaboration with NEEPCO. While the Generation Company had already cleared the proposal, it was expected that NEEPCO would clear the proposal by the end of this year. Moreover, it was further informed that the Generation Company was actively examining the setting up of a 70 MW Solar Power Project at Amguri. He thanked the Commission for giving importance to the Station Heat Rate issue and informed that the Company has been successful in reducing the Auxiliary Energy Consumption of both the power stations. He hoped that with steady performance of the stations, regular flow of gas and availability of water, the APGCL would be able to generate 300 MW of power from its thermal and hydel stations for internal consumption. Due to all these factors, the position has marginally improved in the last few days. However, he stated that there would be some disruption in the availability of power when the OTPC, Palatana would be shut down for regular maintenance from 20th August to 5th September, 2014. Therefore, during this period, the Distribution Company will have to manage with its own generation resources and through power purchase.

He informed that in the **transmission sector**, the Company had handled only 720 MW in 2004 but now with financial assistance received from ADB, NLCPR etc., the transmission handling capacity had been enhanced to a little over 1600 MW. All the projects which are presently under execution will enhance the capacity to handle transmission of almost 1700 MW of Power by the end of this year and it is expected that by the end of 12th plan period, the capacity will be almost 2000 MW.

He further stated that the tariff proposal submitted by the Company is an extremely rational and thought out proposal. He informed the members that there are some factors which are within the control of the Company and some are beyond their control and all these have been taken into consideration while preparing the detailed Tariff proposal. Hence, he requested the Members of the Advisory Committee and the Hon'ble Commission to take a realistic view of the problems being encountered by the power sector and support their Tariff proposals.

3.1. Generation (APGCL)

A Power Point Presentation was made by a representative of APGCL, the salient points of which are recorded below:

Although APGCL is capable of generating 300 MW of power yet they have not been able to generate power to that extent because of paucity of gas and sometimes water. However, the thermal stations namely Namrup and Lakwa Stations have occasionally, generated power to their fullest capacity. Further, the Karbi Langpi HEP is also generating energy upto their full load of 100 MW as per availability of water.

With regard to Truing up for FY 2012-13, the approved gross generation was 1803.08 MU against which the Utility was able to generate 1765.26 MU. This lower generation was mainly due to bad hydrology, which includes non-availability of water. Moreover, the Auxiliary Consumption was also higher than the norms set by Commission. Against total approved income of Rs 382.50 Cr, the Utility had recovered Rs 459.56 Cr primarily due to the FPPPA charges levied. On the other hand, although the total fuel cost approved was Rs 157.32 Cr, the Utility had to spend Rs 364.54 Cr due to fuel price rise and low gross station heat rate. In the matter of Return on Equity, it was stated that the Government of Assam through a letter had issued a guideline stating that the grant should be considered as promoter's contribution.

With regard to the Annual Performance Review for FY 2013-14, it was stated that there were differences in some parameters like fuel cost and depreciation from what was approved in the ARR by the Commission in its Tariff Order due to higher Station Heat Rates and addition of the Myntriang Small hydro project.

With regard to Tariff Proposal for FY 2014-15, it was informed that difference from the approved ARR for the year occurred mainly on account of the Fuel Cost, which was more than double the earlier price of fuel. Therefore, it was stated that price of fuel was a major factor for submission of the Revised Tariff proposal.

One member expressed concern that the power generation of the APGCL was always less than estimated. He requested the utility to try to generate power to their maximum capacity. MD, APGCL informed that low generation was due to non-availability of gas as per requirement. It was informed that the utility has taken up the matter with the supplying agencies to supply the required quantity of gas with standard calorific value.

3.2 Transmission (AEGCL)

A Power Point Presentation was also made on behalf of AEGCL, the main points of which are briefly noted below:

With regard to Annual Performance Review for FY 2011-12, the representative of the Utility stated that differences had occurred from the approved figures in Tariff Order for the year regarding payment to Power Grid, Employee Cost and also on account of Interest and Finance Charge. **He also informed that In the Annual Performance Review for FY 2012-13**, differences had occurred mainly due to payments made to Power Grid and again in Employee Costs.

With regard to **the Annual Performance Review for FY 2013-14**, it was informed that the differences occurred on account of Employee Cost due to DA payment to employees and new recruitment and also on account of depreciation which increased due to capitalisation of new assets.

One Member wanted to know whether there was proper estimation of the expenditure made by the Company. In reply, the representative of AEGCL stated that the expenditure of the Transmission Company is mostly fixed and variations occurred mostly on payment to Power Grid which accounted for 40% of the total cost and depended on the annual power procurement. However, sometimes deviations were observed in other heads as well due to reasons explained above.

Some members stated that although they were insisting on balance sheets and audited accounts of the Company to be made public, yet this was not done by AEGCL. The Chairperson advised the Utilities to make sure that the balance sheets and audited statement of accounts are made public and hosted in their websites.

3.3 Distribution (APDCL)

Regarding the tariff proposal of APDCL (Distribution), a Power Point Presentation was made on the proposals and some of the salient points are furnished below.

In true up of the ARR for FY 2011-12, the utility claimed a revenue gap of Rs 516.88 Cr. Similarly, in true up of ARR for FY 2012-13, a revenue gap is shown as Rs.196.27 Cr. In both the years, deviation was mainly on account of cost of Power Purchase, Interest and Finance Charge, etc. for which the amount of variation claimed comes to approximately Rs. 591 Cr and Rs 402 Cr respectively. Again, in Annual Performance Review for FY 2013-14, total revenue gap claimed is Rs.583.72 Cr.

A member stated that there should be correct estimation of the actual power requirement and availability as power purchase is the main component of tariff. Another member requested the Commission that the State Government must be approached to sustain the subsidy granted to BPL and Domestic-A consumers and even increase the same, if necessary this year, to provide some respite to these consumers from tariff hike.

Some members also suggested that the cross subsidy of industries need to be reduced further as stipulated in the National Tariff Policy and if possible, completely removed.

The Chairperson, AERC stated that cross subsidy has been reduced to the extent possible in the tariff orders and is likely to remain until it is possible to charge consumers as per the cost of supply.

4. Agenda No. 4: Presentation on Smart Grid Pilot Project by R-APDRP, APDCL

A Power Point Presentation on Smart Grid Pilot Project was made by the Representative of R-APDRP, APDCL and the salient points of which are mentioned below.

The Smart Grid Pilot Project is a Government of India project which was launched in 14 States including Assam. The Commission gave in-principle approval to the investment proposal for the project amounting to Rs 29.93 Cr. In Assam, three areas under Paltanbazar, Ulubari and Narangi Substations have been selected under the Pilot Project Scheme. Some of the expected benefits of the project were reduction of AT&C losses, lowering peak loads, increase in efficiency of the network, etc. It was informed that the consumers whose residences will be fitted with smart meters will not be able to use any excess load during peak hours than the permissible limit and their extra load could be remotely switched off automatically by the licensee.

On a query by a member, it was clarified that there would be no load shedding for the customers availing smart meters. It was further suggested that a consumer availing smart grid facility may be allowed enhanced connected load on demand, without going through the

normal procedures. The members also suggested that while implementing the project, the consumers should not be burdened financially.

5. Agenda No. 5: Discussion on the following Draft Regulations and amendment.

i) Draft AERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations, 2014

On behalf of AERC, a Power Point presentation was made on the Draft Regulations.

It was informed that as per Electricity Act 2003, the State Electricity Regulatory Commission is required to promote cogeneration and generation of electricity from renewable energy by providing suitable measures for connectivity with grid and sale of electricity to any person and also specify the percentage of renewable energy to be procured by licensees. In pursuance of the above, the Commission notified the AERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations 2009, covering all the matters mentioned under section 86(1)(e) of EA 2003.

However, during the last four years, there were a number of developments in renewable energy based power generation scenario in the country particularly, in Solar Power. The present amendment of the AERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations, 2009 has been proposed duly taking into consideration all the above developments. Once these new Regulations are notified in the official gazette, the (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations, 2009 shall stand repealed.

ii) Draft AERC (Grid Interactive Solar PV Systems) Regulations, 2014

A Power Point presentation was made on the above Draft Regulations from AERC.

It was informed that Grid Interactive solar power plants can contribute a significant amount of energy for meeting day time load in urban homes, reducing day time peak system demand. In fact, 40% to 70% of day time electrical load in offices, educational institutions, commercial establishments, etc. can be met from grid interactive solar systems. In these systems, the advantage is that it runs without battery or with low capacity battery backup. Therefore, the establishment cost as well as running cost is much lower. An efficient Solar PV System also needs low maintenance. It was also informed that one of the disadvantages

of this System is that energy is available only when sun shines. Also, benefit from the grid interactive system would be less in places where power supply is irregular.

A member suggested that such systems may be installed by the Government of Assam in the Bharalu, Deepar Beel and such other water bodies. These systems may also be installed in unused/ barren land masses to prevent encroachment and a proposal in this regard may be forwarded to the Government by the Commission. It was however, suggested that the issue of safety and security of the systems (lines/ panels) had to be ensured. Another member of the Committee suggested that rooftops in hospitals, hotels and such other commercial establishments and industries may be made mandatory and incentives provided to such consumers.

The Chairperson, AERC informed the members that a policy paper on solar PV System is being prepared. This draft would be submitted to the State Government for examination. The Government may then choose to notify the same for public opinion and the above suggestions regarding incentives and others may be forwarded to the State Government directly at that time. He suggested that brainstorming sessions may also be held by APDCL along with the concerned officials of the State Government before the policy paper is finally adopted. While noting the suggestions offered by the members, the Chairperson observed that installation of the solar PV systems should not be confined within Guwahati, instead, the policy should contain provisions to encourage consumers for installation of such systems throughout the state.

The Chairperson however, stated that the Draft Regulations may require some amendments depending on the comments received from some stakeholders.

iii) Draft AERC (Terms and Conditions for Appointment of Consultants) Regulations, 2014.

A Power Point presentation was made on the Draft AERC (Terms and Conditions for Appointment of Consultants) Regulations, 2014. It was explained that these Regulations have been drafted in line with CERC (Appointment of Consultant) Amendment Regulations, 2010 and the Regulations when finally notified, would supersede the AERC (Terms and Conditions of Appointment of Consultants) Regulations, 2005. The engagement of four categories of Consultants in AERC have been suggested in the Draft Regulations such as, (i) Corporate Consultants (ii) Individual Consultants (iii) Staff Consultants and (iv) Professional experts. All matters regarding appointment/engagement of Consultants will be governed by these Regulations.

iv) Draft amendments to Annexure II & III of AERC (Terms & Conditions for Determination of Tariff) Regulations, 2006.

Amendments have been proposed in normative Station Heat Rate and Auxiliary Energy consumption for the power stations of the state.

Some Members opined that the modified rates fixed is high and should have been less. On behalf of AERC, it was explained that the normative Station Heat Rates were decided based on a study report of IIT Guwahati and so far as Auxiliary Energy Consumption is concerned, recommendation of CEA norms for gas based power stations were being considered.

6. Agenda No 6: Status of implementation of DSM activities of APDCL.

A Power Point Presentation was made regarding status of implementation of DSM activities by a representative of APDCL.

In the Presentation, it was stated that the one of the main functions of DSM is to reduce the electricity consumption through various ways. For successful implementation of DSM, the Company has taken some programmes, some of which are in the pipeline and some are ongoing. The Utility also has taken up some Energy Efficiency Schemes and Energy Saving Schemes. Moreover, for efficient functioning, some officers of APDCL are proposed to be trained on DSM and Energy Efficiency.

Appendix – 1

List of members present in the meeting of the 18th State Advisory Committee Meeting held on August 12, 2014

1. Shri Naba Kumar Das, IAS (Retd), Chairperson, AERC
2. Dr. Rajani Kanta Gogoi, Member, AERC
3. Shri D.Chakravarty, Member, AERC
4. Shri K.V. Eapen, Chairman, APDCL, AEGCL & APGCL
5. Shri R.L. Barua, MD, APDCL
6. Shri P. Bujarbaruah, MD, APGCL
7. Shri G.K.Das, MD, AEGCL
8. Smt. Sailen Barua, President, NESSIA, R.G.B Road, Guwahati-24
9. Shri Kumud Ch. Medhi, General Secretary, NESSIA, Guwahati-7.
10. Shri M.P. Agarwal, Chairman, All India Manufacturers' Organisation.
11. Dr. Shree Birendra Kumar Das, President, Grahak Suraksha Sanstha, Guwahati.
12. Shri Bharat Saikia, Secretary, Grahak Suraksha Sanstha, Guwahati
13. Shri Debasish Chakravarti, Secretary, ABITA Zone 1
14. Shri Anuj Kumar Baruah, AASSIA, President, Bamunimaidam, I/E Guwahati
15. Shri A.K. Dutta, AASSIA, General Secretary, Bamunimaidam, Guwahati-21.
16. Shri Anil Rai, FINER, Member
17. Smt. Utpala Saikia, Deputy Secretary, Power Deptt., Dispur.
18. Shri Dipak Kr. Deka, GM, AIDC

Officers of AERC

1. Shri D.K. Sarmah, Secretary & Joint Director, AERC
2. Shri T. Mahanta, Deputy Director (Engg) AERC
3. Shri A. Purkayastha, Deputy Director (Finance) AERC
4. Ms. Panchamita Sarma, Consultant (Finance, Database and Consumer Advocacy Cell) AERC.
5. Shri N.K. Deka, Consultant (Technical), AERC