

Order in Petition No. 196/2016

Order on

Aggregate Revenue Requirement for
First MYT Control Period
(FY 2016-17 to FY 2018-19)

&

Retail Supply Tariff for FY 2016-17

For

Electricity Department, Andaman and Nicobar
Administration



06th April 2016

संयुक्त विद्युत विनियामक आयोग (गोवा राज्य और संघ शासित प्रदेशों के लिए)

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories,

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**Before the
Joint Electricity Regulatory Commission
For the State of Goa and Union Territories, Gurgaon**

QUORUM

Shri S.K. Chaturvedi (Chairperson)

Ms. Neerja Mathur (Member)

Petition No. 196/2016

In the matter of

Approval of Aggregate Revenue Requirement for First MYT Control Period (FY 2016-17 to FY 2018-19) & Retail Supply Tariff for FY 2016-17.

And in the matter of

Electricity Department, Andaman and Nicobar Administration.....**Petitioner**

ORDER

Passed On: 06th April 2016

- a. This Order is passed in respect of the Petition filed by the Electricity Department, Andaman and Nicobar Administration for approval of Aggregate Revenue Requirement for First MYT Control Period (FY 2016-17 to FY 2018-19) & Wheeling & Retail Supply Tariff for FY 2016-17.
- b. The Order on the approval of the Business Plan for the First MYT Control Period was issued on 28th December 2016 and the Petitioner was directed to submit the MYT Petition within one month of the issuance of the Business Plan Order.
- c. After receiving the Petition, the Commission scrutinized the contents of the Petition and called for further information/data so as to take a prudent view of the Petition. The Commission also held a technical validation session of the MYT Petition to determine the sufficiency of the Petition. Comments/objections/suggestions were also invited from the public/stakeholders. Public hearing was held and parties/people present were heard. The schedule of activities performed under this quasi-judicial process was as below:

Particulars	Details
Date of Admission	12 th February 2016
Petition No.	196/2016
Technical Validation Session	01 st March 2016
Public Hearing	02 nd March 2016

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

- d. The approved tariff of FY 2016-17 as detailed in Chapter “Tariff Schedule” shall come in force with effect from 1st April 2016 and shall remain valid till further orders of the Commission.
- e. All existing provisions which are not modified by this order shall continue to be in force.
- f. The licensee shall publish the tariff structure and the salient features of the tariff within one week in three daily newspapers in Hindi, Bengali and in English, having wide circulation in its areas of supply. The distribution licensee shall also publish a booklet in Hindi, Bengali and English containing all details of tariff and its applicability for the benefit of consumers. It should be made available for sale to public at nominal price.
- g. It is seen that in the case of A&N islands, majority of the generation is diesel based, making per unit cost of generation very high compared to other utilities. In view of this, the approved tariff is not covering the full cost of supply. Historically, there has been a substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the Administration of A&N. Keeping the above fact in view, the Commission is of the view that any variation in power purchase cost (including variation in cost of its own generation) should, for the time being, be borne by the utility.
- h. Ordered as above, read with attached document giving detailed reasons, grounds and conditions.
- i. Copy of this order may be sent to Petitioner, CEA and Administration of Andaman & Nicobar. It shall be placed on the website of the Commission.

-Sd-

नीरजा माथुर
सदस्य

स्थान : गुडगाँव

दिनांक: 06 अप्रैल, 2016

-Sd-

सुधीर चतुर्वेदी
अध्यक्ष

संयुक्त विद्युत विनियामक आयोग
(गोवा और केंद्र शासित प्रदेशों के लिए)

(Certified Copy)

कीर्ति तिवारी, सचिव

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List of Abbreviations

Abbreviation		Full Form
A&G	:	Administration & General
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
BNP	:	Bharat Nirman Programme
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CC	:	Current Consumption
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
CGS	:	Central Generating Station
COD	:	Commercial Operation Date
Commission/JERC	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
CKt. Km	:	Circuit Kilometer
DDUGJY	:	Deendayal Upadhyaya Gram Jyoti Yojana
DISCOM	:	Electricity Department of Andaman and Nicobar Islands
CPSU	:	Central Public Sector Undertaking
EA 2003	:	The Electricity Act, 2003
FC	:	Fixed Charges
FPPCA	:	Fuel & Power Purchase Cost Adjustment
FY	:	Financial Year
GFA	:	Gross Fixed Assets
HP	:	Horse Power
HT	:	High Tension
IPDS	:	Integrated Power Development Scheme
JERC	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
KVA	:	Kilo Volt Ampere
KWh	:	Kilo Watt Hour
LPS	:	Late Payment Surcharge
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff
NDS	:	Non-Domestic Supply
NFA	:	Net Fixed Assets
O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PX	:	Power Exchange
R-APDRP	:	Restructured Accelerated Power Development and Reforms Programme

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Abbreviation		Full Form
REC	:	Renewable Energy Certificate
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
SLDC	:	State Load Dispatch Centre
SBI CAPS	:	SBI Capital Market Limited
SBI PLR/SBAR	:	SBI Prime Lending Rate/State Bank Advance Rate
SCC	:	System Control Centre
T&D	:	Transmission & Distribution
UI	:	Unscheduled Interchange
VC	:	Variable Charges

1. Introduction

1.1. About JERC

In exercise of the powers conferred by Section 83 of the Electricity Act 2003, the Central Government constituted a two member (including Chairperson) Joint Electricity Regulatory Commission for all Union Territories except Delhi to be known as “Joint Electricity Regulatory Commission for Union Territories” with headquarters at Delhi as notified vide notification no. 23/52/2003 – R&R dated 02nd May 2005. Later with the joining of the state of Goa, the Commission came to be known as “Joint Electricity Regulatory Commission for the State of Goa and Union Territories” as notified on 30th May 2008. The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry) started functioning with effect from September 2008. Office of the Commission is presently located in Gurgaon, Haryana.

1.2. Electricity Regulatory Process in Andaman and Nicobar Islands

The Electricity Department of Andaman & Nicobar Administration had submitted their petitions for Determination of Aggregate Revenue Requirement and Tariff before the Commission and the Commission subsequently issued the following Tariff Orders.

Table 1.1: Details of Tariff and related Petitions so far submitted by the Petitioner & Orders Issued by JERC

Sr. No.	For FY	Filing date	Date of Tariff Order
1.	2012-13	29 th November 2011	04 th June 2012
2.	2013-14	29 th November 2012	31 st March 2013
3.	2014-15	16 th January 2014	11 th April 2014
4.	2015-16	15 th December 2014	31 st March 2015
5.	Business Plan Order for First MYT Control Period	10 th September 2015	28 th December 2016

1.3. Filing of Petition for approval of MYT Petition from FY 2016-17 to FY 2018-19 and Retail Supply Tariff for FY 2016-17

The MYT Business Plan Petition was filed vide letter dated 10th September 2015; received at the Commission’s office on 14th September 2015. The Business Plan Order was issued by the Commission on 28th December 2016. The Commission had directed the Petitioner to file the

MYT Petition within 1 month of issuance of the Business Plan Order. The Petitioner had filed the Petition on 06th February 2016 which was received in the Commission's office on 09th February 2016.

1.4. Admission of Petition

In view of the time constraints, the MYT Petition for the Control Period FY 2016-17 to FY 2018-19 was admitted on 12th February 2016 and was marked as Petition no. 196/2016.

1.5. Interaction with the Petitioner

The Order has referred at numerous places to various actions taken by the "Commission". It may be mentioned for the sake of clarity, that the term "Commission", except for the hearing and orders, denotes Secretariat of the Commission for carrying out the technical due diligence and validation of data of the petitions filed by the utilities, obtaining and analyzing information/clarifications received from the utilities and submitting relevant issues for consideration of the Commission.

For purpose of analysis of the Petition, the Commission's staff held discussions with the Petitioner/Petitioner's representative, obtained information/clarifications wherever required and carried out technical validation with regard to the information provided by the Petitioner. The Commission's staff interacted regularly with the Petitioner to seek clarifications and justification on various issues essential for the analysis of the Business Plan. The Commission's staff conducted Technical validation session (TVS) with the Petitioner during which discrepancies in the MYT Petition were pointed out and additional information as required by the Commission was indicated. The technical validation session was held in the office of ED-A&N at Port Blair on 01st March 2016. The Petitioner submitted its replies, as shown below, in response to the various queries raised by the Commission during the course of analysis of the Petition, which were taken into account for finalization of the Business Plan Petition.

Table 1.2: List of Interactions with the Petitioner

S.No.	Date	Subject
1.	12 th February 2016	Admission of the Petition
2.	03 rd March 2016	Data Gaps forwarded by the Commission
3	17 th March 2016	Response 1 to data gaps by the Petitioner
4.	18 th March 2016	Response 2 to data gaps by the Petitioner
5.	28 th March 2016	Response 3 to data gaps by the Petitioner

1.6.Public Hearing Process

The Commission directed the Petitioner to publish the Summary of the Business Plan proposal in the abridged form to ensure public participation. The public notices were published by the Petitioner for inviting objections/ suggestions from the stakeholders on the Business Plan Petition:

Table 1.3: Details of Public Notice published by the Petitioner

Sr. No.	Date	Name of Newspaper	Place of Circulation
1	The Andaman Express	01 st March 2016	Port Blair
2	The Echo of India	01 st March 2016	Port Blair
3	The Daily Telegram	27 th February 2016	Kolkata

The Petitioner also uploaded the Petition on its website <http://electricity.and.nic.in> for inviting objections and suggestions on the Petition. Interested parties/stakeholders were requested to file their objections/ suggestions on the Petition to the Commission with a copy to the Petitioner on or before 27th February 2016. The copies of the public notices published by the Petitioner are attached as **Annexure 1** to this order. The Commission received four written objections/suggestions on the Petition, for filing objections/suggestion. The replies to the objections during the public hearing were sent by the Petitioner after the hearing.

1.7.Notice for Public Hearing

The Commission also published public notice in the leading newspapers as given below giving due intimation to stakeholders, consumers, objectors and the public at large about the public hearing to be conducted by the Commission on 02nd March 2016 at Port Blair. The schedule of public hearing conducted by the Commission was as below.

Table 1.4: Schedule of public hearing at Port Blair

Sr. No.	Date & Time	Venue of Hearing	Subject
1.	02 nd March 2016 from 10:00 AM onwards	ALHW Multipurpose Hall, Port Blair	Approval of ARR for First MYT Control Period and Retail Tariff for FY 2016-17

The details of the public notice published by the Commission are as below.

Table 1.5: Details of public notice published by the Commission

S.No.	Date	Name of Newspaper	Place of Circulation
1.	16 th February 2016	The Andaman Express	Port Blair
2.	16 th February 2016	The ECHO of India	Port Blair
3.	16 th February 2016	Bartaman	Kolkata

The repeat public notices for due intimation of the public hearing were published in the following newspapers as shown below.

Table 1.6: Repeat public notice published by the Commission

S.No.	Date	Name of Newspaper	Place of Circulation
1.	29 th February 2016	The Andaman Express	Port Blair
2.	29 th February 2016	The ECHO of India	Port Blair
3.	29 th February 2016	Bartaman	Kolkata

Copies of the public notice published by the Commission for intimation of public hearing are attached as **Annexure 2** to this order.

The Commission received four written objections/suggestions on the Petition, for filing objections/suggestion. The replies to the objections during the public hearing were sent by the Petitioner after the hearing.

During the public hearing, each objector was provided with an opportunity to present his views on the Petition filed by the Petitioner. All those present in the hearing, irrespective of whether they had given a written objection or not, were given an equal opportunity to express their views. The list of objectors is attached at **Annexure 3** to this order. The list includes the objectors who gave their written objections; those who gave their written objections and presented before the Commission; and other stakeholders who did not give their written objection or prior intimation but presented before the Commission orally. The Commission has examined the issues and concerns expressed by stakeholders. The major issues raised/indicated during the public hearing, along with the comments/replies of the utility and the views of the Commission, thereon, have been summarized in **Chapter 4** of this order.

1.8.Organization of the Order

This Order is organized in the following chapters:

- ❖ **Chapter 1** of the Order provides the background and brief description of the regulatory process undertaken by the Commission.
- ❖ **Chapter 2** of the Order lists out various suggestions and objections raised by the objectors in writing as well as during the public hearing before the Commission. Various suggestions and objections have been summarized, followed by the response of the Petitioner and the rulings of the Commission on the various issues.
- ❖ **Chapter 3** of the Order discusses the views of the Commission on True-Up of previous years
- ❖ **Chapter 4** of the Order discusses the views of the Commission on Review of FY 2015-16.
- ❖ **Chapter 5** of the Order discusses various components of ARR for the MYT Control Period FY 2016-17 to FY 2018-19, key issues and Commission's ruling on the same.
- ❖ **Chapter 6** of the Order discusses the approach of the Commission on Tariff Principles and Design
- ❖ **Chapter 7** of the Order discusses the Tariff Schedule approved by the Commission.
- ❖ **Chapter 8** of the Order provides necessary directions of the Commission to ED-A&N.

2. Summary of Objections/Suggestions received, Response from the Petitioner and Commission's Views

2.1. Regulatory Process

On admitting the Petition, the Commission directed the Petitioner to make copies of the Petition available to the public, upload the Petition on the website and also published in the newspapers in abridged form in the given format duly inviting comments/objections from the public as per provisions of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and JERC (Multiyear Distribution Tariff) Regulations 2014 as amended.

The public hearing was held on 02nd March 2016 at Port Blair. During the public hearing, some persons who had submitted the objections in writing presented their objections/suggestions in person before the Commission. Other participants from the general public, who did not submit written objections earlier, were also given an equal opportunity to offer their views/suggestions in respect of the present Petition.

The list of objectors is attached as **Annexure 3** to this order which includes the stakeholders:

- 1) Those who gave their written objections & did not intend to present orally during the public hearing.
- 2) Those who gave their written objections & expressed desire to present orally also during the public hearing.
- 3) Those who gave their written objections but had not desired to express orally, but later chose to present orally also. They were also given an opportunity to present orally before the Commission during the public hearing.
- 4) Those who did not give their written objection or prior intimation, but participated in the hearing on the spot and/or also gave written submissions.

At the beginning of the hearing, the Commission ascertained from the stakeholders that those who had filed the written objection before the date of the public hearing, had received the replies to their written objections. All stakeholders were provided the opportunity to present their suggestions. Those stakeholders who did not give prior written objections/suggestions and expressed their views, objections, suggestions during the hearing were replied to by the Petitioner after the hearing.

2.2.Objections/Suggestions, Response of the Petitioner and Commission's Comments

The Commission is appreciative of the efforts of various stakeholders for providing suggestions / comments / observations to make the Electricity Distribution Sector responsive and efficient.

While there was no specific objection from the stakeholders, the participants had raised concerns about increase in tariff and requested for lowering of tariff keeping in view of the economy of the islands, change in category of religious institutions from commercial to domestic, promotion of alternate sources of energy and improvement in overall service quality.

The Department had responded to the comments at the time of Public Hearing only.

The Commission had noted the concerns of the stakeholders and response of the department.

3. True-up for FY 2012-13, FY 2013-14, FY 2014-15

3.1.Applicable Provisions of Tariff Regulations 2009

The True-up of FY 2012-13 is to be carried out as per the following provisions of Regulation 8 of Tariff Regulations, 2009:

Quote

“After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called ‘Truing Up’.

The Truing Up for any year will ordinarily not be considered after more than one year of ‘Review’.

The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.

While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.

In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.

The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.”

Unquote

3.2.Approach for True-Up of previous years

The Petitioner has not submitted the true-up Petition for previous years. Further, the Petitioner has also not submitted any accounts prepared on commercial principles for previous years.

The Commission in its previous order had stressed upon the requirement of the audited accounts to bring in more accuracy in the estimates of the Commission. The JERC Tariff Regulations also requires the licensee to file the true up along with the audited accounts in the filing.

The Commission has taken serious view of the fact that no action has been taken by the Petitioner for preparation of audited accounts based on commercial principles despite repeated directions by the Commission. The Commission now directs the Petitioner to prepare and submit the accounts from FY 2012-13 onwards based on commercial principles by 30th November 2016. In the event, there is further non-compliance by the Petitioner, the Commission will be constrained to take appropriate action against the Petitioner.

4. Review of FY 2015-16

4.1. Applicable Provisions of Tariff Regulations 2009

The Review of FY 2015-16 is to be carried out as per the following provisions of Regulation 8 of Tariff Regulations, 2009:

Quote

“The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called ‘Review’.”

.....The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.

While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.

In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.

The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.”

Unquote

4.2. Approach for Review of FY 2015-16

The Petitioner has not submitted any Petition for Review of FY 2015-16. The Commission has taken note of the same and directs the Petitioner to follow the regulations in totality. The Commission further directs the Petitioner to submit the review for current year and subsequently the true-up.

5. Approval of the various ARR components for the MYT Control Period FY 2016-17 to FY 2018-19

5.1. Approach for the approval of various ARR components for the MYT Control Period

While the Petitioner has submitted separate Business Plan Petition as well as MYT Petition, the Commission is of the view that impact of various components approved in the Business Plan has to be given effect in the MYT Order. The Commission has already issued the Business Plan Order for the First MYT Control Period on 28th December 2015.

The Commission accordingly has appropriately considered the various components approved in the Business Plan for finalizing various revenue components in this order.

5.2. Energy Sales

Petitioner Submission:

The Petitioner has submitted the sales as approved by the Commission in the Business Plan Order dated 28th December 2015.

Table 5.1: Projected Sales submitted by the Petitioner (in MU)

Sr. No.	Category of Consumer	CAGR	FY 16	FY 17	FY 18	FY 19
		Approved	Base Year	MYT Control Period		
1	Domestic	6.77%	123.36	131.71	140.62	150.14
2	Commercial	4.83%	63.62	66.69	69.92	73.30
3	Industry	9.45%	14.64	16.03	17.54	19.20
4	Bulk	1.63%	30.42	30.92	31.42	31.93
5	Public Lighting	1.90%	9.23	9.40	9.58	9.76
6	Irrigation, Pumps & Agriculture	1.42%	0.88	0.89	0.90	0.92
Total Sales			242.15	255.64	269.98	285.24

Commission Analysis:

In the previous orders, the Commission had approved the sales on consolidated basis. However, the Commission is of the view that the Andaman and Nicobar Islands are a peculiar case wherein the islands are neither interconnected within themselves nor with the National Grid and in fact operate in isolation only. Further, the consumer as well as sales mix along with the growth pattern cannot be considered uniformly across all islands. The Commission is of the strong view that there should be independent assessment of sales, energy requirement and energy availability across all the islands.

Accordingly, the Commission had asked the Petitioner to submit the island wise sales and generation and discussed the same during the Technical Validation Session also. The Petitioner has provided the island-wise sales of previous years. The Petitioner had also submitted that:

“Further, w.r.t. to sales & T&D loss for the FY 2014 -15 of the three Islands - Chowra, Teresa & Car Nicobar, it is submitted that the figures are unaudited and the Department shall submit the audited and reconciled figures along with the next filing. May kindly consider the figures for the FY 2013-14 in respect of the above Islands for the purpose.”

The Commission acknowledges that there are practical geographical constraints along with connectivity issues, and accordingly, there can be some issues related to reconciliation of information. However, in the spirit of the Electricity Act 2003 and various policies, guidelines and regulations framed therein, wherein the thrust is on continuous performance improvement and developing a robust information base, island wise figures should be prepared. This would lead to better future assessments and planning.

The 21 electrified islands/regions in Andaman and Nicobar Islands which are divided into 5 major operating zones namely, Headquarters, North Andaman, Middle Andaman, South Andaman and Nicobar Islands, consisting of following islands/areas:

Table 5.2: Electrified Islands/Regions in various operating zones

Operating Zones	Islands/Areas
Headquarters	Headquarters (Port Blair)
North Andaman	Ganesh Nagar, Gandhi Nagar, Shanti Nagar, Smith Island and Diglipur
Middle Andaman	Rangat, Hanspuri and Long Island
South Andaman	Neil Islands, Havelock, HutBay, Strait Island and Dugong Creek
Nicobar Islands	Car Nicobar, Katchal, Kamorta, Chowra, Teresa, Champion, Campbell Bay

The summary of historical sales into these 5 major operating zones is as follows:

Table 5.3: Historical Sales in various operating zones (in MU)

Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Headquarters				
Domestic	65	69	74	79
N-Domestic	40	40	41	42
Industrial	9	10	10	11
Public Lighting	7	6	7	6
Agriculture	1	1	1	1
Bulk Supply	29	28	28	29
Grand Total	149	154	161	168
North Andaman				

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Domestic	5.22	6.48	6.92	7.55
N-Domestic	3.13	2.57	2.50	2.77
Industrial	0.16	0.19	0.22	0.26
Public Lighting	0.55	0.53	0.57	0.53
Agriculture	0.11	0.11	0.09	0.08
Bulk Supply	0.05	0.13	0.18	0.21
Grand Total	9.22	10.01	10.47	11.40
Middle Andaman				
Domestic	10.24	10.46	11.60	12.62
N-Domestic	4.41	4.42	4.75	4.84
Industrial	1.15	0.25	0.35	0.39
Public Lighting	0.75	0.73	0.83	0.84
Agriculture	0.02	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Grand Total	16.56	15.87	17.53	18.70
South Andaman				
Domestic	5.65	6.16	6.54	7.11
N-Domestic	3.62	3.91	4.33	4.71
Industrial	0.81	0.79	0.97	1.26
Public Lighting	0.58	0.59	0.57	0.54
Agriculture	0.05	0.05	0.06	0.06
Bulk Supply	0.03	0.03	0.03	0.04
Grand Total	10.73	11.54	12.50	13.72
Nicobar Islands				
Domestic	8.18	8.93	8.67	9.33
N-Domestic	3.01	3.86	4.05	6.54
Industrial	0.26	0.25	0.36	0.34
Public Lighting	0.64	0.66	0.67	0.72
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.54	0.89	0.86	0.93
Grand Total	12.63	14.59	14.61	17.87
Total Andaman and Nicobar Islands				
Domestic	93.98	101.43	107.46	115.59
N-Domestic	53.96	55.14	56.85	60.64
Industrial	10.89	11.17	11.97	13.38
Public Lighting	9.24	8.72	9.24	9.05
Temp Connection	0.00	0.00	0.00	0.00
Agriculture	0.90	0.91	0.87	0.87
Bulk Supply	29.57	28.98	29.32	29.93
Grand Total	198.54	206.34	215.71	229.46

The actual historical sales of independent island/region is detailed in Table 1 in Annexure 4. The Commission, in Regulation 15 and 16 of MYT Regulations, 2014 has specified the methodology for projecting the metered and un-metered sales. The relevant extract of the MYT Regulations, 2014 is as follows:

“15.1 Forecasting Methodology

Metered sales shall be treated as an uncontrollable parameter:

Provided that open access transactions shall not form part of the sales:

Provided further that sales forecast shall be based on past trends in each of the slabs of consumer categories. The compounded annual growth rate (CAGR) of past 2 to 3 years of sales within each of the slabs of a consumer category as per audited books of account shall be used to forecast up to short and medium (5 years) time range.

Provided also that in cases where slab-wise sales to each consumer category are not available in audited books of accounts and only consolidated sales are available, the Distribution Licensee shall include the slab-wise sales in annexure to its Annual Report from next year onwards:

Provided also that if Audited books of accounts are not available, the Distribution Licensee shall get the accounts audited within a year of roll out of these tariff regulations so as to ensure that audited sales figures, by slab by consumer category, for last three preceding years are available for sales estimation from next year onwards

16 Un-metered Sales Forecast

Methodology for determination of un-metered sales

16.2 The Central Electricity Authority issued CEA (installation and operation of meters), Regulations 2006. However in some utilities under the jurisdiction of JERC 100% metering has not yet taken place. Till such time 100% metering is achieved, the energy sales to unmetered consumers shall be considered on normative and it will be a controllable parameter.”

It is very clear from the above provisions that the CAGR of past 2 to 3 years of sales within each of the slabs of a consumer category as per audited books of account shall be used to forecast up to short and medium (5 years) time range.

The Commission has adopted the same methodology for calculation of the CAGR and generally applied the CAGR of 3 years. The Commission has pointed out various aberrations in the Petition by way of a deficiency note, which were further discussed in detail during the Technical Validation Session (TVS) with the Petitioner. Further, if there is any kind of aberration i.e. a high decline or increase the Commission has allowed a normative increase or zero percent increase in the consumer category. Also, wherever appropriate, the Commission has retained the overall growth rate originally approved on cumulative basis for the particular island also.

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The actual island/region wise growth rate as approved by the Commission is detailed in Table 2 of Annexure 4.

Keeping in view the above submissions made by the Petitioner and views of the Commission, the Commission has approved the island/region wise sales for the MYT Control Period as detailed in Table 3 of Annexure 4.

Accordingly, the summary of sales approved by the Commission in 5 major operating zones is as follows:

Table 5.4: Summary of Category-wise Energy Sales as approved by the Commission in 5 Major Zones for MYT Control Period (In MU)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	84	90	96	103
N-Domestic	42	43	44	45
Industrial	12	13	15	16
Public Lighting	7	7	7	7
Agriculture	1	1	1	1
Bulk Supply	29	30	30	30
Grand Total	175	184	192	202
North Andaman				
Domestic	8.12	8.74	9.40	10.11
N-Domestic	2.88	2.98	3.09	3.21
Industrial	0.28	0.31	0.34	0.37
Public Lighting	0.53	0.53	0.53	0.53
Agriculture	0.08	0.08	0.08	0.08
Bulk Supply	0.22	0.23	0.24	0.26
Grand Total	12.11	12.87	13.69	14.56
Middle Andaman				
Domestic	13.53	14.50	15.55	16.67
N-Domestic	4.99	5.14	5.31	5.47
Industrial	0.43	0.47	0.51	0.56
Public Lighting	0.88	0.92	0.96	1.00
Agriculture	0.01	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Grand Total	19.83	21.04	22.33	23.71
South Andaman				
Domestic	7.62	8.17	8.75	9.38
N-Domestic	4.86	5.03	5.20	5.38
Industrial	1.33	1.41	1.49	1.58
Public Lighting	0.54	0.54	0.55	0.55
Agriculture	0.06	0.06	0.06	0.07
Bulk Supply	0.04	0.04	0.05	0.05

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Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Grand Total	14.46	15.25	16.10	17.00
Nicobar Islands				
Domestic	9.80	10.29	10.81	11.36
N-Domestic	6.94	7.37	7.83	8.33
Industrial	0.38	0.42	0.47	0.52
Public Lighting	0.72	0.73	0.74	0.74
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.96	0.98	1.00	1.03
Grand Total	18.80	19.79	20.85	21.99
Andaman and Nicobar Islands				
Domestic	123.47	131.90	140.92	150.56
N-Domestic	62.14	63.69	65.31	66.99
Industrial	14.59	15.91	17.35	18.93
Public Lighting	9.21	9.37	9.53	9.70
Agriculture	0.87	0.87	0.87	0.87
Bulk Supply	30.39	30.86	31.34	31.82
Grand Total	240.67	252.60	265.32	278.87

In view of the above, the Commission now finds it appropriate to approve the total sales of 252.60 MU, 265.32 MU and 278.87 MU in FY 2016-17, FY 2017-18 and FY 2018-19 respectively instead of 255.64 MU, 269.98 MU and 285.24 MU approved for FY 2016-17, FY 2017-18 and FY 2018-19 respectively in the Business Plan Order. This difference is on account of fact that the Commission has initially considered consolidated historical sales in Business Plan Order and the Commission has now considered specific island wise sales and growth pattern across individual islands which is more accurate.

5.3.Number of Consumers

Petitioner Submission:

The Petitioner has submitted the same number of consumers as approved by the Commission in the Business Plan Order dated 28th December 2015.

Table 5.5: Projected number of consumers submitted by the Petitioner (in MU)

Sr. No.	Category of Consumer	CAGR	FY 16	FY 17	FY 18	FY 19
		Approved	Base Year	MYT Control Period		
1	Domestic	3.22%	103102	106420	109844	113379
2	Commercial	2.89%	18833	19376	19936	20512
3	Industry	3.14%	550	567	585	603
4	Bulk	4.37%	64	66	69	72
5	Public Lighting	5.00%	655	688	722	758

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Sr. No.	Category of Consumer	CAGR	FY 16	FY 17	FY 18	FY 19
		Approved	Base Year	MYT Control Period		
6	Irrigation, Pumps & Agriculture	5.00%	264	277	291	305
Total Number of Consumers			123467	127394	131447	135630

Commission Analysis:

In the previous orders, the Commission had approved the number of consumers on cumulative basis.

In response to the data gaps, the Petitioner has submitted the Island-wise number of consumers for the previous years. As detailed in previous section, the Commission is of the view that island wise assessment is to be done in case of number of consumers also.

The summary of historical number of consumers into 5 major operating zones namely, Headquarters, North Andaman, Middle Andaman, South Andaman and Nicobar Islands is as follows:

Table 5.6: Historical Number of Consumers in various operating zones

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (In No.s)			
Headquarters				
Domestic	53936	53648	56309	57338
N-Domestic	10127	10351	10716	10868
Industrial	345	348	352	367
Public Lighting	324	363	379	369
Agriculture	198	124	131	140
Bulk Supply	39	42	43	44
Grand Total	64969	64876	67930	69126
North Andaman				
Domestic	8026	8976	9739	10314
N-Domestic	1381	1459	1532	1578
Industrial	30	35	44	36
Public Lighting	51	103	54	44
Agriculture	10	14	14	17
Bulk Supply	2	3	3	4
Grand Total	9500	10590	11386	11993
Middle Andaman				
Domestic	13668	14805	15357	15736
N-Domestic	2943	3000	3081	3139
Industrial	54	54	53	57
Public Lighting	86	96	96	98
Agriculture	13	14	15	19
Bulk Supply	0	0	0	0

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual (In No.s)			
Grand Total	16764	17969	18602	19049
South Andaman				
Domestic	6959	7340	7576	7718
N-Domestic	1217	1263	1316	974
Industrial	39	38	38	45
Public Lighting	16	18	17	18
Agriculture	65	66	66	74
Bulk Supply	2	1	1	2
Grand Total	8298	8726	9014	8831
Nicobar Islands				
Domestic	9085	8999	8768	8793
N-Domestic	1076	1207	1229	1307
Industrial	24	26	27	28
Public Lighting	74	69	80	88
Agriculture	6	0	0	2
Bulk Supply	12	10	10	10
Grand Total	10277	10311	10114	10228
Andaman and Nicobar Islands				
Domestic	91674	93768	97749	99899
N-Domestic	16744	17280	17874	17866
Industrial	492	501	514	533
Public Lighting	551	649	626	617
Agriculture	292	218	226	252
Bulk Supply	55	56	57	60
Grand Total	109808	112472	117046	119227

The actual historical number of consumers of independent island/region is detailed in Table 4 in Annexure 4.

The Commission has considered the same approach and methodology for approval of number of consumers as considered for approval of energy sales. The actual island/region wise growth rate as approved by the Commission is detailed in Table 5 of Annexure 4.

Keeping in view the above submissions made by the Petitioner and views of the Commission, the Commission has approved the island/region wise number of consumers for the MYT Control Period as detailed in Table 6 of Annexure 4.

Accordingly, the summary of number of consumers as approved by the Commission in the 5 major operating zones namely, Headquarters, North Andaman, Middle Andaman, South Andaman and Nicobar Islands is as follows:

Table 5.7: Summary of Category-wise Number of Consumers as approved by the Commission in 5 Major Zones for MYT Control Period (In Nos.)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	58519	59724	60955	62210
N-Domestic	11127	11392	11663	11941
Industrial	375	382	390	399
Public Lighting	385	402	420	439
Agriculture	140	140	140	140
Bulk Supply	46	48	50	52
Grand Total	70592	72089	73618	75180
North Andaman				
Domestic	11122	11995	12936	13952
N-Domestic	1647	1720	1795	1874
Industrial	38	41	43	46
Public Lighting	44	44	44	44
Agriculture	18	19	20	21
Bulk Supply	4	4	5	5
Grand Total	12874	13822	14843	15942
Middle Andaman				
Domestic	16493	17286	18117	18989
N-Domestic	3208	3278	3350	3424
Industrial	58	59	60	61
Public Lighting	102	106	111	115
Agriculture	20	21	22	23
Bulk Supply	0	0	0	0
Grand Total	19881	20751	21660	22612
South Andaman				
Domestic	7991	8275	8570	8878
N-Domestic	1025	1081	1142	1210
Industrial	46	47	48	49
Public Lighting	19	19	20	21
Agriculture	78	82	86	90
Bulk Supply	2	2	2	2
Grand Total	9160	9506	9869	10250
Nicobar Islands				
Domestic	9029	9273	9525	9785
N-Domestic	1357	1410	1465	1523
Industrial	30	31	33	35
Public Lighting	92	97	102	107
Agriculture	2	2	2	2
Bulk Supply	10	10	10	10

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Grand Total	10521	10824	11137	11461
Andaman and Nicobar Islands				
Domestic	103155	106553	110103	113813
N-Domestic	18364	18881	19416	19972
Industrial	546	560	575	590
Public Lighting	642	669	697	726
Agriculture	258	263	270	276
Bulk Supply	62	64	66	69
Grand Total	123027	126991	131127	135445

In view of the above, the Commission now finds it appropriate to approve the total number of consumers as 126991, 131127 and 135445 in FY 2016-17, FY 2017-18 and FY 2018-19 respectively instead of 127394, 131447 and 135630 approved for FY 2016-17, FY 2017-18 and FY 2018-19 respectively in the Business Plan Order. This difference is on account of fact that the Commission has initially considered consolidated historical number of consumers in Business Plan Order and the Commission has now considered specific island wise number of consumers and growth pattern across individual islands which is more accurate.

5.4.Connected Load Growth

Petitioner's Submission

The Petitioner has not submitted the category wise connected load for the past 5 FYs.

Commission Analysis

The Petitioner has not submitted the details of the connected load proposed during the Control Period from FY 2016-17 to FY 2018-19 along with past actual connected load. In the previous orders, the Commission had approved the connected load on cumulative basis. The Commission raised the issue during the TVS.

In response to the data gaps, the Petitioner has submitted the Island-wise connected load for the previous years. As detailed in previous section, the Commission is of the view that island wise assessment is to be done in case of connected load also.

The summary of historical connected load into 5 major operating zones namely, Headquarters, North Andaman, Middle Andaman, South Andaman and Nicobar Islands is as follows:

Table 5.8: Historical Connected Load in various operating zones (in KW)

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (In kW)			
Headquarters				
Domestic	53426	57671	59384	72431
N-Domestic	34839	38437	36826	32796
Industrial	7943	8177	8575	10372
Public Lighting	1624	2108	1683	1661
Agriculture	441	526	385	484
Bulk Supply	8384	9018	9117	9574
Grand Total	106657	115937	115970	127318
North Andaman				
Domestic	4459	4172	4907	4931
N-Domestic	1749	2254	2361	2424
Industrial	610	701	705	705
Public Lighting	96	151	142	143
Agriculture	102	127	129	136
Bulk Supply	7	83	84	103
Grand Total	7023	7488	8328	8442
Middle Andaman				
Domestic	8779	9816	10500	11014
N-Domestic	5478	5748	6080	6255
Industrial	844	861	856	1000
Public Lighting	299	307	311	325
Agriculture	40	19	18	26
Bulk Supply	16	19	0	0
Grand Total	15456	16770	17765	18620
South Andaman				
Domestic	9850	10077	10264	10417
N-Domestic	2074	2280	2366	2075
Industrial	646	518	712	1612
Public Lighting	250	250	249	253
Agriculture	43	46	94	50
Bulk Supply	10	10	10	12
Grand Total	12873	13180	13695	14419
Nicobar Islands				
Domestic	10873	10823	10025	10125
N-Domestic	2507	3035	3439	3098
Industrial	309	320	358	349
Public Lighting	183	142	149	174
Agriculture	15	0	1	3
Bulk Supply	184	182	182	185
Grand Total	14071	14502	14154	13934

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual (In kW)			
Andaman and Nicobar Islands				
Domestic	87387	92559	95080	108918
N-Domestic	46647	51754	51072	46648
Industrial	10352	10577	11206	14038
Public Lighting	2452	2957	2534	2556
Agriculture	641	718	627	699
Bulk Supply	8601	9312	9393	9874
Grand Total	156080	167877	169912	182733

The actual historical connected load of independent island/region is detailed in Table 7 in Annexure 4.

The Commission has considered the same approach and methodology for approval of connected load as considered for approval of energy sales. The actual island/region wise growth rate as approved by the Commission is detailed in Table 8 of Annexure 4.

Keeping in view the above submissions made by the Petitioner and views of the Commission, the Commission has approved the island/region wise connected load for the MYT Control Period as detailed in Table 9 of Annexure 4.

Accordingly, the summary of connected load as approved by the Commission in the 5 major operating zones namely, Headquarters, North Andaman, Middle Andaman, South Andaman and Nicobar Islands is as follows:

Table 5.9: Summary of Category-wise Connected Load as approved by the Commission in 5 Major Zones for MYT Control Period (In kW)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	80164	88724	98197	108681
N-Domestic	32796	32796	32796	32796
Industrial	11337	12391	13544	14804
Public Lighting	1674	1686	1699	1712
Agriculture	499	515	531	548
Bulk Supply	10007	10460	10933	11427
Grand Total	136477	146572	157699	169968
North Andaman				
Domestic	5075	5224	5378	5536
N-Domestic	2701	3009	3353	3736
Industrial	740	776	815	855
Public Lighting	157	173	190	209
Agriculture	150	165	181	200
Bulk Supply	113	125	137	151

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Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Grand Total	8936	9472	10054	10687
Middle Andaman				
Domestic	11785	12610	13493	14439
N-Domestic	6472	6698	6933	7179
Industrial	1058	1120	1185	1254
Public Lighting	334	344	353	363
Agriculture	26	26	26	26
Bulk Supply	0	0	0	0
Grand Total	19675	20798	21991	23261
South Andaman				
Domestic	10638	10879	11143	11433
N-Domestic	2140	2208	2280	2356
Industrial	1776	1956	2154	2373
Public Lighting	254	255	256	257
Agriculture	53	55	58	61
Bulk Supply	13	14	14	15
Grand Total	14873	15367	15906	16496
Nicobar Islands				
Domestic	10234	10346	10461	10580
N-Domestic	3408	3754	4140	4570
Industrial	365	382	400	419
Public Lighting	182	190	200	210
Agriculture	3	3	3	3
Bulk Supply	186	187	188	189
Grand Total	14378	14862	15392	15972
Andaman and Nicobar Islands				
Domestic	117896	127783	138672	150669
N-Domestic	47517	48466	49503	50637
Industrial	15275	16625	18098	19704
Public Lighting	2601	2648	2699	2752
Agriculture	731	764	800	838
Bulk Supply	10319	10785	11273	11783
Grand Total	194339	207071	221043	236383

In view of the above, the Commission now finds it appropriate to approve the connected load as 207071 kW, 221043 kW and 236383 kW in FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

5.5. Intra-State Transmission and Distribution losses

Petitioner Submission:

The Petitioner has submitted the T&D losses trajectory of 16.50%, 16.00% and 15.50% for FY 2016-17, FY 2017-18 and FY 2018-19 respectively as approved in the Business Plan Order.

Commission Analysis:

As per Regulation 17 of the MYT Regulations 2014, Treatment of Distribution Loss

“Distribution loss shall be considered as a controllable parameter. Based on the assessment of metered and un-metered sales as per Regulations 15 and 16 of these regulations, the Commission shall prepare the baseline of distribution losses.”

The Commission is of the view that the islands are not interconnected with each other. Hence it is not prudent to pool the losses to arrive at the aggregate losses. The Petitioner has now submitted the segregated island wise information for losses.

The Commission is of the view that there is scope of improvement of T&D losses as these are primarily due to non-billing/ wrong billing which can easily be rectified by the Petitioner.

The Commission has accordingly considered the following loss reduction targets for various islands for the entire MYT Control Period based on actual loss levels in FY 2014-15 as follows:

Present Loss Level (FY 2014-15)	Targeted Annual Reduction
<i>Less than 5%</i>	<i>0.00%</i>
<i>5% to 10%</i>	<i>0.50%</i>
<i>10% to 16%</i>	<i>1.00%</i>
<i>16% to 20%</i>	<i>1.50%</i>
<i>20% to 30%</i>	<i>2.00%</i>
<i>30% to 40%</i>	<i>4.00%</i>
<i>Above 40%</i>	<i>5.00%</i>

Accordingly, the island wise T&D Losses as approved by the Commission for the MYT Control Period is summarized in the Table below:

Table 5.10: Approved Island wise T&D Losses (in %age)

Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
	Actuals	R.E.	Projected		
Headquarters	18.91%	17.41%	15.91%	14.41%	12.91%
Neil Islands	16.14%	14.64%	13.14%	11.64%	10.14%
Havelock	19.43%	17.93%	16.43%	14.93%	13.43%
HutBay, Strait Island and Dugong Creek	25.34%	23.34%	21.34%	19.34%	17.34%
Rangat	19.06%	17.56%	16.06%	14.56%	13.06%
Hanspuri	7.39%	6.89%	6.39%	5.89%	5.39%
Long Island	15.57%	14.57%	13.57%	12.57%	11.57%
North Andaman#	42.92%	37.92%	32.92%	27.92%	22.92%
Car Nicobar	14.82%*	13.82%	12.82%	11.82%	10.82%
Katchal	18.25%	16.75%	15.25%	13.75%	12.25%
Kamorta	21.03%	19.03%	17.03%	15.03%	13.03%
Chowra	9.09%*	8.59%	8.09%	7.59%	7.09%
Teressa	19.51%*	18.01%	16.51%	15.01%	13.51%
Champion	32.30%	28.30%	24.30%	20.30%	16.30%
Campbell Bay	22.15%	20.15%	18.15%	16.15%	14.15%
Andaman and Nicobar Islands	19.96%	18.90%	17.11%	15.34%	13.59%

* Taken at the level of FY 2013-14 as there are issues with the information provided for FY 2014-15

Generation of areas under North Andaman i.e. Ganesh Nagar, Gandhi Nagar, Shanti Nagar, Smith Island and Diglipur is available on consolidated basis only. Accordingly, the Commission has computed historical losses, for the purpose of T&D loss trajectory, on consolidated basis only.

In view of the above, the Commission now finds it appropriate to approve the T&D Losses as 17.11%, 15.34%, 13.59% in FY 2016-17, FY 2017-18 and FY 2018-19 respectively instead of 16.50%, 16.00% and 15.50% approved for FY 2016-17, FY 2017-18 and FY 2018-19 respectively in the Business Plan Order. This difference is on account of fact that the Commission has initially considered consolidated T&D Losses in Business Plan Order and the Commission has now considered specific island wise T&D Loss reduction targets across individual islands which is more accurate.

The gain/loss would be computed as per the approved trajectory of the T&D losses to be done in accordance with Regulations 10 and 11 of the MYT Regulations 2014.

5.6. Energy Requirement

Petitioner Submission:

The Petitioner has submitted the same energy balance as approved in the Business Plan Order.

Commission Analysis:

The Commission has reviewed the information being made available by the Petitioner. Since the Commission has approved island-wise sales and losses and since the sources of power generation are also available island wise, the Commission finds it appropriate to approve the island wise energy requirement.

Based on the sales and losses approved by the Commission in previous sections, the Commission approves the energy requirement for the MYT Control Period as follows:

Table 5.11: Energy Requirement approved by the Commission (in MU)

Particulars	FY 17	FY 18	FY 19
	Projected		
Headquarters			
Energy Sales	183.64	192.34	201.61
T&D Losses	15.91%	14.41%	12.91%
Energy Requirement/Availability	218.37	224.72	231.49
Neil Islands			
Energy Sales	1.46	1.55	1.64
T&D Losses	13.14%	11.64%	10.14%
Energy Requirement/Availability	1.69	1.75	1.83
Havelock			
Energy Sales	5.66	6.05	6.47
T&D Losses	16.43%	14.93%	13.43%
Energy Requirement/Availability	6.77	7.11	7.47
HutBay, Strait Island and Dugong Creek			
Energy Sales	8.13	8.50	8.89
T&D Losses	21.34%	19.34%	17.34%
Energy Requirement/Availability	10.34	10.54	10.76
Rangat			
Energy Sales	20.57	21.84	23.20
T&D Losses	16.06%	14.56%	13.06%
Energy Requirement/Availability	24.51	25.57	26.68
Hanspuri			
Energy Sales	0.02	0.02	0.02
T&D Losses	6.39%	5.89%	5.39%
Energy Requirement/Availability	0.02	0.02	0.03
Long Island			
Energy Sales	0.45	0.47	0.49
T&D Losses	13.57%	12.57%	11.57%
Energy Requirement/Availability	0.52	0.53	0.55
North Andaman			
Energy Sales	12.87	13.69	14.56
T&D Losses	32.92%	27.92%	22.92%

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Particulars	FY 17	FY 18	FY 19
	Projected		
Energy Requirement/Availability	19.19	18.99	18.89
Car Nicobar			
Energy Sales	9.74	10.22	10.72
T&D Losses	12.82%	11.82%	10.82%
Energy Requirement/Availability	11.17	11.59	12.02
Katchal			
Energy Sales	0.97	1.03	1.08
T&D Losses	15.25%	13.75%	12.25%
Energy Requirement/Availability	1.15	1.19	1.24
Kamorta			
Energy Sales	2.19	2.29	2.40
T&D Losses	17.03%	15.03%	13.03%
Energy Requirement/Availability	2.64	2.70	2.76
Chowra			
Energy Sales	0.29	0.30	0.32
T&D Losses	8.09%	7.59%	7.09%
Energy Requirement/Availability	0.32	0.33	0.35
Teressa			
Energy Sales	1.80	1.93	2.06
T&D Losses	16.51%	15.01%	13.51%
Energy Requirement/Availability	2.16	2.26	2.38
Champion			
Energy Sales	0.26	0.28	0.31
T&D Losses	24.30%	20.30%	16.30%
Energy Requirement/Availability	0.34	0.35	0.37
Campbell Bay			
Energy Sales	4.54	4.80	5.09
T&D Losses	18.15%	16.15%	14.15%
Energy Requirement/Availability	5.55	5.73	5.93
Andaman and Nicobar Islands			
Energy Sales	252.60	265.32	278.87
T&D Losses	17.11%	15.34%	13.59%
Energy Requirement/Availability	304.73	313.39	322.75

5.7. Power Purchase Quantum & Cost for MYT Control Period

Petitioner Submission:

ED-A&N has 53 own generating stations and meets 40%-45% of its total energy requirement from own generation. Balance requirement of power is met from purchase from IPP (SPCL), HPPs & NTPC (SPV).

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The merit order dispatch principles are typically adopted when determining the power purchases from various generating stations.

In case of Andaman and Nicobar Islands, there are limited sources of purchase of power and 100% of the generation is available to ED-A&N. Accordingly, ED-A&N has considered utilization / purchase of the entire power available from all the possible sources during FY 2016-17, FY 2017-18 and 2018-19 to meet the demand to the extent possible.

Power Purchase cost is a function of the energy requirement and price of available power from the different sources for meeting the energy requirement. The energy requirement of ED-A&N for FY 2016-17, FY 2017-18 and FY 2018-19 is proposed to be met from own generation & power purchase from sources as detailed below.

ED-A&N has projected the quantum of power generation from own generating stations based on the units generated for the FY 2013-14 & FY 2014-15 and proposed capacity additions during the Control Period. The generation forecast is based on the plant availability and energy demand for the period. Accordingly generation for FY 2016-17, FY 2017-18 and FY 2018-19 is estimated. The Table below provides the details of estimated generation for the MYT Control Period:

Table 5.12: Summary of units generated and sent out as submitted by Petitioner (In MU)

Units Generated and Sent Out			
Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Units Generated	140.25	155.99	172.67
Auxiliary Consumption	6.34	6.83	7.35
Sent Out	133.91	149.16	165.32

Out of total own generation of 118.62 MUs in FY 2014-15, 107.47 MUs were generated from Diesel power ho uses and only 11.15 MUs were generated from Hydro Power Station. Hence, cost of fuel (HSD and lubricants) is a major component of the cost of generation. However, solar power capacity addition is proposed during the FY 2016-17 which shall reduce the impact of high cost of HSD to some extent. Details of cost of fuel for the Control Period are provided below:

Table 5.13: Summary of cost of fuel for own generation as submitted by Petitioner (In Rs. Crores)

Cost of Fuel (Rs. In Cr.)			
Type of Fuel	FY 2016-17	FY 2017-18	FY 2018-19
HSD	151.33	169.99	189.77
Lubricant	2.9	3.42	4.01
Total	154.23	173.42	193.78

The details of the computation of power generation and purchases are provided below.

Table 5.14: Summary of Power Purchase expenses for FY 2016-17 as submitted by Petitioner (In Rs Crores)

Summary of Power Purchase Expenses for FY 2016-17								
Source	Purchase (MU)	Pool Losses	Energy Recd. By Licensee (MU)	FC (Rs. Cr.)	VC (Rs. Cr.)	Others (Rs. Cr.)	Total (Rs. Cr.)	Avg. Cost (Rs./Unit)
IPP (SPCL)	94.80	0.00	94.80	12.06	93.76	0.00	105.82	11.16
HPP- I	5.22	0.00	5.22	0.71	5.39	0.00	6.10	11.69
HPP-II	64.10	0.00	64.10	5.40	66.15	0.00	71.55	11.16
(SPV) NTPC	6.96	0.00	6.96	0.00	5.42	0.00	5.42	7.79
Others	4.67	0.00	4.67	1.69	4.82	0.00	6.51	13.94
Total	175.75	0.00	175.75	19.87	175.54	0.00	195.40	11.12

Table 5.15: Summary of Power Purchase expenses for FY 2017-18 as submitted by Petitioner (In Rs Crores)

Summary of Power Purchase Expenses for FY 2017-18								
Source	Purchase (MU)	Pool Losses	Energy Recd. By Licensee (MU)	FC (Rs. Cr.)	VC (Rs. Cr.)	Others (Rs. Cr.)	Total (Rs. Cr.)	Avg. Cost (Rs./Unit)
IPP (SPCL)	94.80	0.00	94.80	12.66	93.88	0.00	106.55	11.24
HPP- I	5.22	0.00	5.22	0.71	5.39	0.00	6.10	11.69
HPP-II	64.10	0.00	64.10	5.40	66.15	0.00	71.55	11.16
(SPV) NTPC	6.96	0.00	6.96	0.00	5.42	0.00	5.42	7.79
Others	4.67	0.00	4.67	1.69	4.82	0.00	6.51	13.94
Total	175.75	0.00	175.75	20.47	175.66	0.00	196.13	11.16

Table 5.16: Summary of Power Purchase expenses for FY 2018-19 as submitted by Petitioner (In Rs Crores)

Summary of Power Purchase Expenses for FY 2018-19								
Source	Purchase (MU)	Pool Losses	Energy Recd. By Licensee (MU)	FC (Rs. Cr.)	VC (Rs. Cr.)	Others (Rs. Cr.)	Total (Rs. Cr.)	Avg. Cost (Rs./Unit)
IPP (SPCL)	94.80	0.00	94.80	13.30	94.01	0.00	107.31	11.32
HPP- I	5.22	0.00	5.22	0.71	5.39	0.00	6.10	11.69
HPP-II	64.10	0.00	64.10	5.40	66.15	0.00	71.55	11.16
(SPV) NTPC	6.96	0.00	6.96	0.00	5.42	0.00	5.42	7.79
Others	4.67	0.00	4.67	1.69	4.82	0.00	6.51	13.94
Total	175.75	0.00	175.75	21.11	175.79	0.00	196.90	11.20

Commission Analysis:

The Commission has considered the power purchase/availability from various available sources totaling 108.62 MW across the Andaman and Nicobar Islands as follows:

- 1) DG based IPP M/s Suryachakra Power Corporation Limited (Installed Capacity of 20 MW)

- 2) DG based Hired Power Plants
 - 1) DG based HPP at Mayabunder, North Andaman (Installed Capacity 1 MW)
 - 2) DG based HPP at South Andaman (Installed Capacity 5 MW)
 - 3) DG based HPP at South Andaman (Installed Capacity 10 MW)
- 3) NTPC's Solar Plant at South Andaman (Installed Capacity 5 MW)
- 4) The balance requirement is projected to be met from own generating sources (Total Installed Capacity 67.752 MW, including 5.250 MW Hydro based generating station and remaining DG based generating stations: also includes proposed 3 MW DG based generating station at Havelock from FY 2016-17 onwards).

Quantum and Cost of Power Generation and Purchase of Power

The specific considerations of individual sources are detailed below:

A) Diesel Generating Station – IPP- M/s SPCL

While estimating the energy availability and cost for MYT Control Period from M/s SPCL, the following has been considered:

1. The Plant availability has been considered at the normative level of 75%.
2. Average Auxiliary Consumption of past 4 years i.e. 3.41%, has been considered for the MYT period.
3. HSD and Lubricating oil consumption has been calculated by considering the following, as per the latest 3 months power purchase bills:
 - a) For consumption & cost of HSD:
 - i. Gross heat rate of 2010 Kcal/kWh;
 - ii. Average Calorific Value and Density of HSD as per latest 3 months bill of FY 2015-16;
 - iii. Cost of HSD as per latest bill of February 2016.
 - b) For consumption & cost of Lubricating Oil:
 - i. Normative usage has been considered (as 1.1 gm per unit);
 - ii. Average Density of Lube Oil as per latest 3 months bill of FY 2015-16;
 - iii. Cost of Lube Oil as per latest bill of February 2016.
4. No escalation has been considered in the fixed cost as per latest bill of FY 2015-16 and the same will be considered at the true-up stage.
5. Rebate, as calculated for previous year, has not been considered for maintaining the high PLF.

B) Diesel Generating Station – Hired Power Plants (HPPs)

While estimating the energy availability and cost for MYT Control Period, the following has been considered for estimating the energy availability and cost for MYT Period from HPPs:

1. The Plant availability at the normative levels.
2. Average auxiliary consumption of the previous 3 years.

3. HSD and Lubricating Oil consumption has been calculated considering the following:
 - a. For consumption & cost of HSD:
 - i. Gross heat rate, as approved for FY 2015-16.
 - ii. Average Calorific Value and Density of HSD as per latest 3 months bill of FY 2015-16.
 - iii. Cost of HSD as per latest bill of February 2016.
 - b. For consumption & cost of Lubricating Oil:
 - i. Normative usage has been considered (as 1.1 gm per unit);
 - ii. Average Density of Lube Oil as per latest 3 months bill of FY 2015-16;
 - iii. Cost of Lube Oil as per latest bill of February 2016.
4. Fixed Costs, as per approved PPAs.

C) NTPC's Solar plant

While estimating the energy availability and cost for MYT Control Period, the following has been considered:

1. The Plant availability at the average availability level of past 3 years.
2. Average auxiliary consumption of the previous 3 years.
3. Per unit rate of Rs 12.94 per kWh as per latest bills.

D) Department's Own Generation

Inconsistencies have been observed in the submitted information in the Petition in the absence of actual data for the past years in respect of PLF, heat rate, consumption of HSD, and lubricating oil of the DG Sets owned by the ED- A&N. For the purpose of ARR for MYT Control Period, the Commission has considered the auxiliary consumption and SFC at an average of the past 4 years. The average calorific value of fuel, density of fuel and consumption of lubricating oil has been considered as per the average of latest 3 months bills available. The cost of HSD and Lube Oil has been considered as per the latest bill of February 2016.

Keeping in view the island wise requirement, the Commission has considered the projections of availability from various generating stations.

Accordingly, the Commission approves the following availability and cost of generation/power procurement for the MYT Control Period from the station mentioned below:

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**Table 5.17: Summary of Units Generated/ Purchased for FY 2016-17 as approved by the Commission
(in MU)**

S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
Power Purchase (IPP & Solar)									
1	IPP - SPCL	South Andaman	20.000	15.000	131400000	75.00%	98.55	3.41%	95.2
2	G/Charama SPV	South Andaman	5.000	5.000	43800000	15.34%	6.72	0.00%	6.7
Power Purchase (Hired Power Plants)									
3	HPP-I	South Andaman	5.000	5.000	43800000	30.00%	13.14	0.00%	13.1
4	HPP-II	South Andaman	10.000	10.000	87600000	76.20%	66.75	0.00%	66.7
Own Generation									
5	Chatham	South Andaman	15.000	9.600	84096000	25.00%	21.02	4.92%	20.0
6	Phoneix Bay	South Andaman	8.000	6.600	57816000	29.10%	16.82	2.66%	16.4
7	Raj Niwas	South Andaman	0.512	0.512	4485120	1.84%	0.08	0.00%	0.1
8	Medical & Secretariat	South Andaman	0.512	0.512	4485120	0.24%	0.01	0.00%	0.0
9	RutLand	South Andaman	0.024	0.024	210240	30.00%	0.06	2.71%	0.1
10	Neil Island	South Andaman	0.634	0.371	3249960	53.00%	1.72	1.59%	1.7
11	Havelock	South Andaman	1.730	1.101	9644760	35.26%	3.40	0.20%	3.4
12	Havelock	South Andaman	3.000	3.000	26280000	26.00%	6.83	50.00%	3.4
13	Hutbay	South Andaman	5.650	2.595	22732200	47.00%	10.68	4.36%	10.2
14	Strait Island	South Andaman	0.015	0.015	131400	45.00%	0.06	12.57%	0.1
15	Dugong Creek	South Andaman	0.047	0.025	219000	15.00%	0.03	1.60%	0.0
16	Baratang	Middle Andaman	0.512	0.512	4485120	30.00%	1.35	0.87%	1.3
17	Rangat Bay & Banagaon	Middle Andaman	10.052	6.683	58543080	42.00%	24.59	5.22%	23.3
18	Hanspuri	Middle Andaman	0.027	0.027	236520	7.38%	0.02	10.34%	0.0
19	Long Island	Middle Andaman	0.892	0.270	2365200	25.00%	0.59	7.24%	0.5
Power Purchase (Hired Power Plants)									
20	HPP-III Mayabunder	North Andaman	1.000	1.000	8760000	55.00%	4.82	0.00%	4.8
Own Generation									
21	Gandhi Nagar	North Andaman	0.060	0.060	525600	15.00%	0.08	2.71%	0.1
22	Ganesh Nagar	North Andaman	0.065	0.065	569400	12.00%	0.07	4.07%	0.1
23	Shanti Nagar	North Andaman	0.065	0.065	569400	15.00%	0.09	4.85%	0.1
24	Smith Island	North Andaman	0.230	0.230	2014800	25.00%	0.50	2.01%	0.5
25	Sita Nagar	North Andaman	2.368	1.520	13315200	24.00%	3.20	1.57%	3.1
26	KHEP**	North Andaman	5.250	4.800	42048000	25.52%	10.73	1.36%	10.6
27	NPH Car Nicobar	Nicobar	5.636	2.700	23652000	49.70%	11.76	4.83%	11.2
28	Katchal	Nicobar	1.230	0.690	6044400	20.00%	1.21	1.86%	1.2
29	Kamorta +Community Power Houses)	Nicobar	1.230	0.690	6044400	42.00%	2.54	0.41%	2.5
30	Pillpillow	Nicobar	0.756	0.468	4099680	2.31%	0.09	0.55%	0.1

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S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
31	Kakana	Nicobar	0.164	0.118	1033680	2.26%	0.02	0.79%	0.0
32	Chowra	Nicobar	0.164	0.118	1033680	33.00%	0.34	3.55%	0.3
33	Teressa	Nicobar	0.756	0.468	4099680	55.00%	2.25	2.75%	2.2
34	Champion	Nicobar	0.323	0.080	700800	50.00%	0.35	1.86%	0.3
35	Campbell Bay/Comm PH	Nicobar	2.848	1.935	16950600	34.00%	5.76	2.91%	5.6
Total Power Purchase			41.000	36.000			190.0		186.62
Total Own Generation			67.752	45.854			126.3		118.46
Total Availability			108.752	81.854			316.244		305.075

Table 5.18: Summary of Units Generated/ Purchased for FY 2017-18 as approved by the Commission (in MU)

S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
Power Purchase (IPP & Solar)									
1	IPP - SPCL	South Andaman	20.000	15.000	131400000	75.00%	98.55	3.41%	95.2
2	G/Charama SPV	South Andaman	5.000	5.000	43800000	15.34%	6.72	0.00%	6.7
Power Purchase (Hired Power Plants)									
3	HPP-I	South Andaman	5.000	5.000	43800000	30.00%	13.14	0.00%	13.1
4	HPP-II	South Andaman	10.000	10.000	87600000	76.20%	66.75	0.00%	66.7
Own Generation									
5	Chatham	South Andaman	15.000	9.600	84096000	30.00%	25.23	4.92%	24.0
6	Phoneix Bay	South Andaman	8.000	6.600	57816000	33.50%	19.37	2.66%	18.9
7	Raj Niwas	South Andaman	0.512	0.512	4485120	1.84%	0.08	0.00%	0.1
8	Medical & Secretariat	South Andaman	0.512	0.512	4485120	0.24%	0.01	0.00%	0.0
9	RutLand	South Andaman	0.024	0.024	210240	30.00%	0.06	2.71%	0.1
10	Neil Island	South Andaman	0.634	0.371	3249960	55.00%	1.79	1.59%	1.8
11	Havelock	South Andaman	1.730	1.101	9644760	35.26%	3.40	0.20%	3.4
12	Havelock	South Andaman	3.000	3.000	26280000	29.00%	7.62	50.00%	3.8
13	Hutbay	South Andaman	5.650	2.595	22732200	48.00%	10.91	4.36%	10.4
14	Strait Island	South Andaman	0.015	0.015	131400	45.00%	0.06	12.57%	0.1
15	Dugong Creek	South Andaman	0.047	0.025	219000	15.00%	0.03	1.60%	0.0
16	Baratang	Middle Andaman	0.512	0.512	4485120	30.00%	1.35	0.87%	1.3
17	Rangat Bay & Banagaon	Middle Andaman	10.052	6.683	58543080	44.00%	25.76	5.22%	24.4
18	Hanspuri	Middle Andaman	0.027	0.027	236520	7.38%	0.02	10.34%	0.0
19	Long Island	Middle Andaman	0.892	0.270	2365200	25.00%	0.59	7.24%	0.5
Power Purchase (Hired Power Plants)									

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S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
20	HPP-III Mayabunder	North Andaman	1.000	1.000	8760000	55.00%	4.82	0.00%	4.8
Own Generation									
21	Gandhi Nagar	North Andaman	0.060	0.060	525600	15.00%	0.08	2.71%	0.1
22	Ganesh Nagar	North Andaman	0.065	0.065	569400	12.00%	0.07	4.07%	0.1
23	Shanti Nagar	North Andaman	0.065	0.065	569400	15.00%	0.09	4.85%	0.1
24	Smith Island	North Andaman	0.230	0.230	2014800	25.00%	0.50	2.01%	0.5
25	Sita Nagar	North Andaman	2.368	1.520	13315200	22.00%	2.93	1.57%	2.9
26	KHEP**	North Andaman	5.250	4.800	42048000	25.52%	10.73	1.36%	10.6
27	NPH Car Nicobar	Nicobar	5.636	2.700	23652000	51.60%	12.20	4.83%	11.6
28	Katchal	Nicobar	1.230	0.690	6044400	20.00%	1.21	1.86%	1.2
29	Kamorta +Community Power Houses)	Nicobar	1.230	0.690	6044400	43.00%	2.60	0.41%	2.6
30	Pillpillow	Nicobar	0.756	0.468	4099680	2.31%	0.09	0.55%	0.1
31	Kakana	Nicobar	0.164	0.118	1033680	2.26%	0.02	0.79%	0.0
32	Chowra	Nicobar	0.164	0.118	1033680	33.00%	0.34	3.55%	0.3
33	Teressa	Nicobar	0.756	0.468	4099680	57.00%	2.34	2.75%	2.3
34	Champion	Nicobar	0.323	0.080	700800	53.00%	0.37	1.86%	0.4
35	Campbell Bay/Comm PH	Nicobar	2.848	1.935	16950600	35.00%	5.93	2.91%	5.8
Total Power Purchase			41.000	36.000			190.0		186.62
Total Own Generation			67.752	45.854			135.8		127.21
Total Availability			108.752	81.854			325.8		313.83

Table 5.19: Summary of Units Generated/ Purchased for FY 2018-19 as approved by the Commission (in MU)

S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
Power Purchase (IPP & Solar)									
1	IPP - SPCL	South Andaman	20.000	15.000	131400000	75.00%	98.55	3.41%	95.2
2	G/Charama SPV	South Andaman	5.000	5.000	43800000	15.34%	6.72	0.00%	6.7
Power Purchase (Hired Power Plants)									
3	HPP-I	South Andaman	5.000	5.000	43800000	30.00%	13.14	0.00%	13.1
4	HPP-II	South Andaman	10.000	10.000	87600000	76.20%	66.75	0.00%	66.7
Own Generation									
5	Chatham	South Andaman	15.000	9.600	84096000	35.00%	29.43	4.92%	28.0
6	Phoneix Bay	South Andaman	8.000	6.600	57816000	38.20%	22.09	2.66%	21.5
7	Raj Niwas	South Andaman	0.512	0.512	4485120	1.84%	0.08	0.00%	0.1

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S. No.	Source	Location	Capacity (In MW)		Generation at its full load (in KWh)	Availability/ PLF (in %)-	Estimated Generation (IN Mus)	Auxiliary Consumption (%)	Net Energy available /sent out (MU)
			Installed	Derated					
8	Medical & Secretariat	South Andaman	0.512	0.512	4485120	0.24%	0.01	0.00%	0.0
9	RutLand	South Andaman	0.024	0.024	210240	30.00%	0.06	2.71%	0.1
10	Neil Island	South Andaman	0.634	0.371	3249960	57.50%	1.87	1.59%	1.8
11	Havelock	South Andaman	1.730	1.101	9644760	35.26%	3.40	0.20%	3.4
12	Havelock	South Andaman	3.000	3.000	26280000	31.50%	8.28	50.00%	4.1
13	Hutbay	South Andaman	5.650	2.595	22732200	49.00%	11.14	4.36%	10.7
14	Strait Island	South Andaman	0.015	0.015	131400	45.00%	0.06	12.57%	0.1
15	Dugong Creek	South Andaman	0.047	0.025	219000	15.00%	0.03	1.60%	0.0
16	Baratang	Middle Andaman	0.512	0.512	4485120	30.00%	1.35	0.87%	1.3
17	Rangat Bay & Banagaon	Middle Andaman	10.052	6.683	58543080	46.00%	26.93	5.22%	25.5
18	Hanspuri	Middle Andaman	0.027	0.027	236520	7.38%	0.02	10.34%	0.0
19	Long Island	Middle Andaman	0.892	0.270	2365200	25.00%	0.59	7.24%	0.5
Power Purchase (Hired Power Plants)									
20	HPP-III Mayabunder	North Andaman	1.000	1.000	8760000	55.00%	4.82	0.00%	4.8
Own Generation									
21	Gandhi Nagar	North Andaman	0.060	0.060	525600	15.00%	0.08	2.71%	0.1
22	Ganesh Nagar	North Andaman	0.065	0.065	569400	12.00%	0.07	4.07%	0.1
23	Shanti Nagar	North Andaman	0.065	0.065	569400	15.00%	0.09	4.85%	0.1
24	Smith Island	North Andaman	0.230	0.230	2014800	25.00%	0.50	2.01%	0.5
25	Sita Nagar	North Andaman	2.368	1.520	13315200	22.00%	2.93	1.57%	2.9
26	KHEP**	North Andaman	5.250	4.800	42048000	25.52%	10.73	1.36%	10.6
27	NPH Car Nicobar	Nicobar	5.636	2.700	23652000	53.50%	12.65	4.83%	12.0
28	Katchal	Nicobar	1.230	0.690	6044400	21.00%	1.27	1.86%	1.2
29	Kamorta +Community Power Houses)	Nicobar	1.230	0.690	6044400	44.00%	2.66	0.41%	2.6
30	Pillpillow	Nicobar	0.756	0.468	4099680	2.31%	0.09	0.55%	0.1
31	Kakana	Nicobar	0.164	0.118	1033680	2.26%	0.02	0.79%	0.0
32	Chowra	Nicobar	0.164	0.118	1033680	35.00%	0.36	3.55%	0.3
33	Teressa	Nicobar	0.756	0.468	4099680	60.00%	2.46	2.75%	2.4
34	Champion	Nicobar	0.323	0.080	700800	55.00%	0.39	1.86%	0.4
35	Campbell Bay/Comm PH	Nicobar	2.848	1.935	16950600	36.00%	6.10	2.91%	5.9
Total Power Purchase			41.000	36.000			189.97		186.62
Total Own Generation			67.752	45.854			145.74		136.45
Total Availability			108.752	81.854			335.72		323.07

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Table 5.20: Summary of Power Purchase and Fuel Cost approved by the Commission for FY 2016-17

S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
Power Purchase (IPP & Solar)								
1	IPP - SPCL	23509832	96418	93.40	1.92	18.74	114.06	11.98
2	G/Charama SPV	0	0	0.00	0.00	8.69	8.69	12.94
Power Purchase (Hired Power Plants)								
3	HPP-I	4476297	12856	17.78	0.00	5.53	23.31	17.74
4	HPP-II	14112267	65303	56.07	0.00	9.35	65.42	9.80
Own Generation								
5	Chatham	5489526	20569	21.81	0.41		22.22	11.11
6	Phoneix Bay	4392993	16460	17.45	0.33		17.78	10.86
7	Raj Niwas	21546	81	0.09	0.00		0.09	10.57
8	Medical & Secretariat	2771	10	0.01	0.00		0.01	10.57
9	RutLand	16469	62	0.07	0.00		0.07	10.86
10	Neil Island	449752	1685	1.79	0.03		1.82	10.74
11	Havelock	887857	3327	3.53	0.07		3.59	10.59
12	Havelock	1784096	6685	7.09	0.13		7.22	21.14
13	Hutbay	2789709	10453	11.08	0.21		11.29	11.05
14	Strait Island	10278	58	0.04	0.00		0.04	8.12
15	Dugong Creek	8577	32	0.03	0.00		0.03	10.74
16	Baratang	351330	1316	1.40	0.03		1.42	10.66
17	Rangat Bay & Banagaon	6420138	24056	25.51	0.48		25.98	11.15
18	Hanspuri	4561	17	0.02	0.00		0.02	11.79
19	Long Island	154393	579	0.61	0.01		0.62	11.39
Power Purchase (Hired Power Plants)								
20	HPP-III Mayabunder	1018662	4714	4.05	0.00	1.18	5.23	10.86
Own Generation								
21	Gandhi Nagar	20586	77	0.08	0.00		0.08	10.86
22	Ganesh Nagar	17841	67	0.07	0.00		0.07	11.02
23	Shanti Nagar	22301	84	0.09	0.00		0.09	11.11
24	Smith Island	131520	493	0.52	0.01		0.53	10.79
25	Sita Nagar	834408	3127	3.32	0.06		3.38	10.74
26	KHEP**	0	10498	0.00	0.21		0.21	0.20
27	NPH Car Nicobar	3069331	11501	12.19	0.23		12.42	11.10
28	Katchal	315648	1183	1.25	0.02		1.28	10.77
29	Kamorta +Community Power Houses)	662860	2484	2.63	0.05		2.68	10.61
30	Pillpillow	24732	93	0.10	0.00		0.10	10.63
31	Kakana	6109	23	0.02	0.00		0.02	10.65
32	Chowra	89068	334	0.35	0.01		0.36	10.96
33	Teressa	588752	2206	2.34	0.04		2.38	10.87

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S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
34	Champion	91492	343	0.36	0.01		0.37	10.77
35	Campbell Bay/Comm PH	1504816	5639	5.98	0.11		6.09	10.88
	Total Power Purchase	43117058	179291	171.30	1.92	43.50	216.72	11.61
	Total Own Generation	30163461	123539	119.84	2.45	0.00	122.29	10.32
	Total Availability	73280519	302829	291.14	4.37	43.50	339.01	11.11

Table 5.21: Summary of Power Purchase and Fuel Cost approved by the Commission for FY 2017-18

S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
Power Purchase (IPP & Solar)								
1	IPP - SPCL	23509832	96418	93.40	1.92	18.74	114.06	11.98
2	G/Charama SPV	0	0	0.00	0.00	8.69	8.69	12.94
Power Purchase (Hired Power Plants)								
3	HPP-I	4476297	12856	17.78	0.00	5.53	23.31	17.74
4	HPP-II	14112267	65303	56.07	0.00	9.35	65.42	9.80
Own Generation								
5	Chatham	6587432	24683	26.17	0.49		26.66	11.11
6	Phoneix Bay	5057226	18949	20.09	0.38		20.47	10.86
7	Raj Niwas	21546	81	0.09	0.00		0.09	10.57
8	Medical & Secretariat	2771	10	0.01	0.00		0.01	10.57
9	RutLand	16469	62	0.07	0.00		0.07	10.86
10	Neil Island	466724	1749	1.85	0.03		1.89	10.74
11	Havelock	887857	3327	3.53	0.07		3.59	10.59
12	Havelock	1989953	7456	7.91	0.15		8.05	21.14
13	Hutbay	2849064	10675	11.32	0.21		11.53	11.05
14	Strait Island	10278	58	0.04	0.00		0.04	8.12
15	Dugong Creek	8577	32	0.03	0.00		0.03	10.74
16	Baratang	351330	1316	1.40	0.03		1.42	10.66
17	Rangat Bay & Banagaon	6725859	25202	26.72	0.50		27.22	11.15
18	Hanspuri	4561	17	0.02	0.00		0.02	11.79
19	Long Island	154393	579	0.61	0.01		0.62	11.39
Power Purchase (Hired Power Plants)								
20	HPP-III Mayabunder	1018662	4714	4.05	0.00	1.18	5.23	10.86
Own Generation								
21	Gandhi Nagar	20586	77	0.08	0.00		0.08	10.86
22	Ganesh Nagar	17841	67	0.07	0.00		0.07	11.02
23	Shanti Nagar	22301	84	0.09	0.00		0.09	11.11
24	Smith Island	131520	493	0.52	0.01		0.53	10.79
25	Sita Nagar	764874	2866	3.04	0.06		3.10	10.74

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S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
26	KHEP**	0	10498	0.00	0.21		0.21	0.20
27	NPH Car Nicobar	3186670	11940	12.66	0.24		12.90	11.10
28	Katchal	315648	1183	1.25	0.02		1.28	10.77
29	Kamorta +Community Power Houses)	678643	2543	2.70	0.05		2.75	10.61
30	Pillpillow	24732	93	0.10	0.00		0.10	10.63
31	Kakana	6109	23	0.02	0.00		0.02	10.65
32	Chowra	89068	334	0.35	0.01		0.36	10.96
33	Teressa	610161	2286	2.42	0.05		2.47	10.87
34	Champion	96982	363	0.39	0.01		0.39	10.77
35	Campbell Bay/Comm PH	1549076	5804	6.15	0.12		6.27	10.88
	Total Power Purchase	43117058	179291	171.30	1.92	43.50	216.72	11.61
	Total Own Generation	32648249	132849	129.71	2.64	0.00	132.35	10.40
	Total Availability	75765308	312140	301.01	4.56	43.50	349.07	11.12

Table 5.22: Summary of Power Purchase and Fuel Cost approved by the Commission for FY 2018-19

S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
Power Purchase (IPP & Solar)								
1	IPP - SPCL	23509832	96418	93.40	1.92	18.74	114.06	11.98
2	G/Charama SPV	0	0	0.00	0.00	8.69	8.69	12.94
Power Purchase (Hired Power Plants)								
3	HPP-I	4476297	12856	17.78	0.00	5.53	23.31	17.74
4	HPP-II	14112267	65303	56.07	0.00	9.35	65.42	9.80
Own Generation								
5	Chatham	7685337	28797	30.53	0.57		31.11	11.11
6	Phoneix Bay	5766747	21608	22.91	0.43		23.34	10.86
7	Raj Niwas	21546	81	0.09	0.00		0.09	10.57
8	Medical & Secretariat	2771	10	0.01	0.00		0.01	10.57
9	RutLand	16469	62	0.07	0.00		0.07	10.86
10	Neil Island	487939	1828	1.94	0.04		1.97	10.74
11	Havelock	887857	3327	3.53	0.07		3.59	10.59
12	Havelock	2161501	8099	8.59	0.16		8.75	21.14
13	Hutbay	2908420	10898	11.55	0.22		11.77	11.05
14	Strait Island	10278	58	0.04	0.00		0.04	8.12
15	Dugong Creek	8577	32	0.03	0.00		0.03	10.74
16	Baratang	351330	1316	1.40	0.03		1.42	10.66
17	Rangat Bay & Banagaon	7031580	26347	27.94	0.52		28.46	11.15

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S. No.	Source	HSD Consumption (in litres)	Lube Oil Consumption (in liters)	HSD Cost (Rs. Crores)	Lube Oil Cost (Rs. Crores)	Fixed Charges (Rs. Crores)	Total Billed Amount (Rs. Crores)	Rs./KWh
18	Hanspuri	4561	17	0.02	0.00		0.02	11.79
19	Long Island	154393	579	0.61	0.01		0.62	11.39
Power Purchase (Hired Power Plants)								
20	HPP-III Mayabunder	1018662	4714	4.05	0.00	1.18	5.23	10.86
Own Generation								
21	Gandhi Nagar	20586	77	0.08	0.00		0.08	10.86
22	Ganesh Nagar	17841	67	0.07	0.00		0.07	11.02
23	Shanti Nagar	22301	84	0.09	0.00		0.09	11.11
24	Smith Island	131520	493	0.52	0.01		0.53	10.79
25	Sita Nagar	764874	2866	3.04	0.06		3.10	10.74
26	KHEP**	0	10498	0.00	0.21		0.21	0.20
27	NPH Car Nicobar	3304009	12380	13.13	0.25		13.37	11.10
28	Katchal	331430	1242	1.32	0.02		1.34	10.77
29	Kamorta +Community Power Houses)	694425	2602	2.76	0.05		2.81	10.61
30	Pillpillow	24732	93	0.10	0.00		0.10	10.63
31	Kakana	6109	23	0.02	0.00		0.02	10.65
32	Chowra	94466	354	0.38	0.01		0.38	10.96
33	Teressa	642275	2407	2.55	0.05		2.60	10.87
34	Champion	100641	377	0.40	0.01		0.41	10.77
35	Campbell Bay/Comm PH	1593335	5970	6.33	0.12		6.45	10.88
	Total Power Purchase	43117058	179291	171.30	1.92	43.50	216.72	11.61
	Total Own Generation	35247849	142590	140.04	2.83	0.00	142.87	10.47
	Total Availability	78364907	321881	311.34	4.75	43.50	359.59	11.13

Renewable Purchase Obligations

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)

“Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.”

The projected availability of renewable power from NTPC Solar and KHEP and consequential RPO Compliance for the MYT Control Period is tabulated below:

Table 5.23: Summary of RPO Compliance

S.N.	Description	FY 2016-17	FY 2017-18	FY 2018-19
1	Sales Within State	252.60	265.32	278.87
2	RPO Obligation (in %)	3.95%	4.30%	4.65%
	- Solar	1.15%	1.50%	1.85%
	-Non Solar	2.80%	2.80%	2.80%
3	RPO Obligation (in MU)	9.98	11.41	12.97
	- Solar	2.90	3.98	5.16
	-Non Solar	7.07	7.43	7.81
4	RPO Compliance (Actual Purchase)	17.30	17.30	17.30
	- Solar	6.72	6.72	6.72
	-Non Solar	10.58	10.58	10.58
5	RPO Compliance (REC Certificate Purchase)	0	0	0
	- Solar	0	0	0
	-Non Solar	0	0	0
6	Total RPO Compliance	17.30	17.30	17.30
	- Solar	6.72	6.72	6.72
	-Non Solar	10.58	10.58	10.58
7	Shortfall in RPO Compliance	0	0	0
	- Solar	0	0	0
	-Non Solar	0	0	0

It is evident from the above that the availability of solar and non-solar power from NTPC solar and KHEP is sufficient to meet the RPO Compliance for the MYT Control Period.

However, keeping in view the lower cost of solar generation as compared to diesel based generation and environmental considerations, the Commission continues with its direction of the previous Order wherein it is stated that;

“In the light of 100 KWp solar projects installed on the Andaman & Nicobar Islands, the Petitioner is directed to revive the operations of the said plants and may go in for Annual Maintenance Contract of these small solar power plants with the organization responsible for carrying out the maintenance activity of proposed 5 MW solar power plant; so that the AMC contractor shall not be hesitant to come from mainland for such a small contract and as such the consumers of A&N shall be able to get un-interrupted green power and the burden of the Administration of A&N due to high cost of diesel power is reduced. Besides it also helps A&N to meet RPOs.”

Additionally, four to six engineers/technicians of ED A&N, who shall be actually deployed for the job of maintenance of solar power plants, should be initially trained at the new site of 5 MW Solar Power Plant for upkeep and maintenance of 2 x 50 kWp plants, so as to equip the officials of the department with the available technologies for such purpose. This may reduce the frequent dependency on the mainland for the purpose of maintenance.

Summary of total approved Power Purchase Cost for ARR of MYT Control Period

While estimating the total power purchase cost, station wise energy availability and power purchase cost & fuel cost as discussed in earlier paras has been considered. The Commission has accordingly considered the total power purchase cost of Rs. 216.72 Crores and the fuel cost of own generating stations of Rs. 122.29 Crores for procuring 186.62 million units of energy (including solar energy) and generating 118.46 million units of electricity as reasonable and approves the same for FY 2016-17.

The Commission has further considered the total Power purchase cost of Rs. 216.72 Crores and the fuel cost of own generating stations of Rs. 132.35 Crores for procuring 186.62 million units of energy (including solar energy) and generating 127.21 million units of electricity as reasonable, and approves the same for FY 2017-18.

The Commission has also considered the total power purchase cost of Rs. 216.72 Crores and the fuel cost of own generating stations of Rs. 142.87 Crores for procuring 186.62 million units of energy (including solar energy) and generating 136.45 million units of electricity as reasonable, and approves the same for FY 2018-19.

It is seen that in the case of A&N, majority of the generation is diesel based, making per unit cost of generation very high compared to other utilities. If the units generated by hydro-electric plant are excluded from the total generation, the average fuel cost of DG sets of own generation works out at Rs. 11.50 per unit for FY 2016-17. In view of the higher cost of diesel generation, the approved tariff is not covering the full cost of supply. Historically, there has been substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the administration of A&N.

Keeping the above fact in view, the Commission is of the view that any variation in power purchase cost (including variation in cost of their own generation) should, for the time being, be borne by the utility and efforts to enforce energy efficiency be enhanced.

5.8.GFA, Capitalization and Depreciation

Petitioner Submission:

The Petitioner has submitted that the opening value of gross fixed assets (GFA) for 2013-14 has been taken from the audited accounts for the FY 2012-13 and the same has been increased by addition of assets during the FY 2013-14 and FY 2014-15 and estimated addition during FY 2015-16 to arrive at the GFA at the beginning of FY 2016-17. Thereafter, capital expenditure and capitalization as approved by the Commission in the Business Plan Order has been considered to arrive at the GFA for the FY 2016-17, 2017-18 and 2018-19. The GFA movement is given in the Table below:

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Table 5.24: GFA and Capitalization details submitted by the Petitioner (in Rs Crores)

Financial Year	Opening GFA	Addition During the Year	Closing GFA
FY 2016-17	183.15	21.38	204.53
FY 2017-18	204.53	21.58	226.11
FY 2018-19	226.11	18.70	244.81

The details of depreciation as submitted by the Petitioner is as under:

Table 5.25: Depreciation details submitted by the Petitioner (in Rs Crores)

FY 2016-17							
S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
1	Plant & Machinery	125.92	15.3	141.20	133.56	5.28%	7.05
2	Buildings	46.99	5.00	51.99	49.49	3.34%	1.65
3	Vehicles	6.30	0.00	6.30	6.30	5.28%	0.33
4	Furniture and Fixtures	2.77	0.90	3.67	3.22	6.33%	0.20
5	Computers & others	1.17	0.20	1.37	1.27	5.28%	0.07
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	183.15	21.38	204.53	193.84	4.80%	9.31

FY 2017-18							
S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
1	Plant & Machinery	141.20	14.88	156.08	148.64	5.28%	7.85
2	Buildings	51.99	5.50	57.49	54.74	3.34%	1.83
3	Vehicles	6.30	0.00	6.30	6.30	5.28%	0.33
4	Furniture and Fixtures	3.67	0.95	4.62	4.15	6.33%	0.26
5	Computers & others	1.37	0.25	1.62	1.50	5.28%	0.08
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	204.53	21.58	226.11	215.32	4.81%	10.35

FY 2018-19							
S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
1	Plant & Machinery	156.08	11.40	167.48	161.78	5.28%	8.54
2	Buildings	57.49	6.00	63.49	60.49	3.34%	2.02
3	Vehicles	6.30	0.00	6.30	6.30	5.28%	0.33
4	Furniture and Fixtures	4.62	1.00	5.62	5.12	6.33%	0.32
5	Computers & others	1.62	0.30	1.92	1.77	5.28%	0.09

FY 2018-19							
S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	226.11	18.70	244.81	235.46	4.80%	11.31

Commission Analysis:

The Commission has approved the closing GFA at Rs. 270.74 Crores for FY 2015-16 in the Tariff Order dated 31st March 2015. However, the Petitioner has now submitted the closing GFA of Rs 183.15 Crores. As the Petitioner has considered latest actuals/estimates for GFA additions for FY 2014-15 and FY 2015-16 respectively, the Commission finds it appropriate to consider the submission of Petitioner of Rs 183.15 Crores as opening GFA for FY 2016-17.

The Commission has already approved additions in GFA for the MYT Control Period in the Business Plan Order, subject to true up based on audited accounts of the relevant year.

The Commission, accordingly, has considered the value of GFA for MYT Control Period as given in the Table below:

Table 5.26: GFA and Capitalization details approved by the Commission (in Rs Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Opening GFA	183.15	204.53	226.11
Addition during the year	21.38	21.58	18.70
Closing GFA	204.53	226.11	244.81

The Petitioner has not produced any Fixed Asset Register to support the claim of the Gross Fixed Assets. The Commission is of the view that Fixed Asset Register records the asset wise details and various types of information can be extracted from the same including the ageing schedule of the asset, present value and capital works in progress etc. As such, in the absence of an updated Fixed Asset Registers, the opening value of fixed assets is on an assumption basis. As a standard practice, and as per Regulation 23 of the MYT Regulations 2014,

“

- a) *Depreciation shall be calculated for each year of the Control Period on the original cost of the fixed assets of the corresponding year.*
- b) *Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.*
- c) *Depreciation shall be calculated annually as per straight-line method over the useful life of the asset at the rate of depreciation. The same shall be as specified in the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014. (The same may vary as notified by CERC from time to time.)*
- d) *The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset.*

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Provided that Land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

e) Depreciation shall be charged from the first year of operation of the asset.

Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.

f) A provision of replacement of assets shall be made in the capital investment plan.”

In absence of updated Fixed Asset Registers, the Commission provisionally allows the depreciation based on the assumed value of opening assets as proposed by the Petitioner. The Commission directs the Petitioner to maintain the Fixed Asset Register to arrive at the actual historical value of assets and file the same along with the next ARR and tariff Petition.

The effective rate of depreciation for assets linked to Plant & Machinery is 5.28%, Vehicles is 9.50%, Buildings is 3.34%, I.T. Equipment including software 15.00% and Furniture is 6.33% vide Appendix-II (Depreciation schedule of CERC Terms and Conditions of Tariff Regulations, 2014).

The Commission has taken into consideration the opening GFA of Rs 183.15 Crores for FY 2016-17 as submitted by the Petitioner. Further, the Commission has considered the addition in GFA in line with capitalization of various schemes approved in the MYT Business Plan Order for the First MYT Control Period. Accordingly, the depreciation approved for the MYT Control Period is summarized below:

Table 5.27: Depreciation approved by the Commission for the MYT Control Period (in Rs Crores)

S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
FY 2017-18							
1	Plant & Machinery	125.92	16.18	142.10	134.01	5.28%	7.08
2	Buildings	46.99	5.00	51.99	49.49	3.34%	1.65
3	Vehicles	6.30	0.00	6.30	6.30	9.50%	0.60
4	Furniture and Fixtures	2.77	0.00	2.77	2.77	6.33%	0.18
5	Computers & others	1.17	0.20	1.37	1.27	15.00%	0.19
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	183.15	21.38	204.53	193.84	5.00%	9.69
FY 2017-18							
1	Plant & Machinery	142.10	15.83	157.93	150.02	5.28%	7.92
2	Buildings	51.99	5.50	57.49	54.74	3.34%	1.83
3	Vehicles	6.30	0.00	6.30	6.30	9.50%	0.60
4	Furniture and Fixtures	2.77	0.00	2.77	2.77	6.33%	0.18
5	Computers & others	1.37	0.25	1.62	1.50	15.00%	0.22
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	204.53	21.58	226.11	215.32	4.99%	10.75
FY 2018-19							
1	Plant & Machinery	157.93	12.40	170.33	164.13	5.28%	8.67
2	Buildings	57.49	6.00	63.49	60.49	3.34%	2.02
3	Vehicles	6.30	0.00	6.30	6.30	9.50%	0.60
4	Furniture and Fixtures	2.77	0.00	2.77	2.77	6.33%	0.18

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S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
5	Computers & others	1.62	0.30	1.92	1.77	15.00%	0.27
6	Land	0.00	0.00	0.00	0.00	0.00%	0.00
7	Total	226.11	18.70	244.81	235.46	4.98%	11.73

5.9. Employee Expenses

Petitioner Submission:

The expense head of employee cost consists of salary and allowance, bonus, Leave Travel Concession (LTC) & Honorarium etc. The parameters relating to employee cost as approved in the Business Plan Order has been taken as base for the projecting the expense. The Commission has approved the norm of 21.49 employee per 1000 consumers. Further, the Commission has provisionally approved the employee expense of Rs. 2,24,913 per personnel which has to be taken as the base employee expense as at the end of FY 2014-15. The base expenditure is to be escalated by the Wholesale Price Index (WPI) for the preceding three years to project the employee expenses for the Control Period.

The above approved norms are to be considered as basis while arriving at the Employee expenses in accordance with Regulation 21.1 of the MYT Regulations, 2014.

The Petitioner has estimated Employee Expenses for FY 2016-17, FY 2017-18 and FY 2018-19 as tabulated below:

Table 5.28: Employee Expenses submitted by the Petitioner (in Rs Crores)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Employee expenses per Employee (Rs.)	224913	248486	261184	274531
No. of consumers in '000		127	131	136
No. of Employees per 1000 consumers		17.52	16.20	14.75
Number of employees		2232.00	2129.00	2001.00
Projected Employee Cost (In Rs. Crores)		55.46	55.61	54.93

Commission Analysis:

As per Regulation 21.1 of the MYT Regulations 2014, Employee Cost

“Employee cost shall be computed as per the approved norm escalated by wholesale price index (WPI), adjusted by provisions for expenses beyond the control of the Distribution Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:

$$EMP_n = (EMP_b * WPI \text{ inflation}) + Provision$$

where:

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EMP_n: Employee expense for the year n

EMP_b; including yearly increments of employees, bonus, promotion. VRS. Employee expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years

Provision: Provision for expenses as necessitated by the licensee due to expansion of the consumer base, yearly increments of Employees, and any expected one-time expenses as specified above."

The Commission had approved the norms for Employee expenses in the Business Plan Order.

The Average WPI increase of last 3 years is summarized in the Table below:

Table 5.29: Average WPI Increase in past 3 years

Particulars	FY 2011-12	FY 2012-13	FY2013- 14	FY 2014-15
April	152	164	171	181
May	152	164	171	182
June	153	165	173	183
July	154	166	176	185
August	155	167	179	186
September	156	169	181	185
October	157	169	181	184
November	157	169	182	181
December	157	169	180	179
January	159	170	179	177
February	159	171	180	176
March	161	170	180	176
Average	156	168	178	181
% increase		7.35%	5.98%	2.00%
Average Increase				5.11%

The Commission has accordingly considered the average WPI increase of 5.11% for the MYT Control Period.

Further, the Commission has approved the base Employee Cost of Rs. 2,24,913 per personnel in the Business Plan Order as base cost for FY 2014-15. Accordingly, the Commission has computed the Employee Expenses for the MYT Control Period as shown in the Table below:

Table 5.30: Employee Expenses approved by the Commission (In Rs Crores)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Approved Annual employee expenses per personnel (FY 15) In Rs	2,24,913				
Projected Employee Expenses per personnel (Considering WPI Escalation)		2,36,409	2,48,493	2,61,195	2,74,545
Approved No. of Employees per 1000 consumers			21.49	21.49	21.49
Approved No. of Consumers (In '000)			127	131	135
No. of Employees as per norms of per 1000 consumers			2728	2817	2910
Total No. of Employees Approved as per norms			2728	2817	2910
Total No. of Employees projected by the Petitioner			2232	2129	2001
Total No. of Employees finally considered by the Commission			2232	2129	2001
Employee Cost approved as per norms (In Rs. Crores)			55.46	55.61	54.94
Provision (In Rs. Crores)			0.00	0.00	0.00
Total Employee Cost approved (In Rs. Crores)			55.46	55.61	54.94

The Commission would like to highlight that the Petitioner has projected reduction of number of employees every year of the MYT Control Period. The Commission has decided to take the same number of employees as submitted by the Petitioner for approval of Employee Expenses for the MYT Control Period. Further, the Commission has also not approved any one time provision for additional expenses as the Petitioner itself has not requested for same.

In view of above, the Commission approves the Employee Cost for MYT Control Period as per table above.

5.10. Administrative and General Expenses

Petitioner Submission:

A&G expenses comprise of the following broad sub-heads of expenditure, viz.

- Domestic Travelling Expenses
- Office Expenses
- Legal, Regulatory & Consultancy Fees
- Insurance etc.

The parameters relating to A&G expenses as approved in the Business Plan Order have been taken as base for the projecting the expense. The Hon'ble Commission has provisionally approved the A&G expenses per employee of Rs.6335 and A&G expense per '000 consumers

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of Rs. 1,37,926. Further, the Commission has approved the weightage of these two factors in overall A&G computation as 50:50. The above approved norms are to be considered as a basis while arriving at the A&G expenses in accordance with Regulation 21.3 of the MYT Regulations, 2014.

The Petitioner has estimated A&G Expenses for FY 2016-17, FY 2017-18 and FY 2018-19 as tabulated below:

Table 5.31: A&G Expenses submitted by the Petitioner (in Rs Crores)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Average A&G expenses per employee	6335.00	6999.00	7356.63	7732.55
Average A&G expenses per '000' consumers	137926	152382.19	160168.92	168353.55
Number of employees		2232	2129	2001
Number of Consumers ('000)		127	131	136
A&G expenses per employee (Rs. Crs.)		0.78	0.78	0.77
A&G expenses per'000 consumers (Rs. Crs)		0.97	1.05	1.14
Projected total A&G expenses (Rs. Crs)		1.75	1.84	1.92

Commission Analysis:

As per Regulation 21.3 of the MYT Regulations 2014, Administrative and General Expenses *A&G expenses shall be computed as per the norm escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

where:

A&G_n: A&G expense for the year n A&G_b: A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years

Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.

The Commission has already approved the norms for A&G Expenses in the Business Plan Order. Accordingly, the Commission hereby approves the A&G Expenses for the MYT Control Period as follows:

Table 5.32: A&G Expenses approved by the Commission (In Rs Crores)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Approved A&G expense per personnel (FY 15) (In Rs.)	6,335				
Projected A&G expense per personnel (In Rs.) (Considering WPI Escalation)		6,659	6,999	7,357	7,733
Total No. of Employees finally considered by the Commission			2,232	2,129	2,001
A&G Expense as per norms of per personnel (50%) (In Rs. Crores)			0.78	0.78	0.77
Approved A&G expense per 1000 consumers (FY 15) (In Rs)	1,37,926				
Projected A&G expense per 1000 consumers (In Rs.) (Considering WPI Escalation)		1,44,976	1,52,386	1,60,175	1,68,362
Approved No. of Consumers (In '000)			127	131	135
A&G Expense as per norms of per '000 consumers (50%) (In Rs. Crores)			0.97	1.05	1.14
Total A&G Expenses as per norms (In Rs. Crores)			1.75	1.83	1.91

5.11. Repair and Maintenance Expenses

Petitioner Submission:

The Petitioner has submitted that it has been undertaking various Repairs and Maintenance activities as a step towards improvement of systems, reduction in breakdowns, reduction in response time and increasing preventive maintenance.

The Commission has not approved any norms for R&M expenses and has directed the Petitioner to submit R&M expenses for the past years to enable the Commission to decide the norms at the time of MYT Order. The Petitioner submitted that the annual accounts for the FY 2013-14 & FY 2014-15 are not yet audited; hence actual audited R&M expenses are not available. In view of the above, the department has projected the R&M expenses for the FY 2016-17, FY 2017-18 and FY 2018-19 on the basis of the R&M expenses for the FY 2015-16 as approved in the Tariff Order for the FY 2015-16 after escalating the same by 2% YOY to capture the inflationary increase in the costs. It is submitted that the department shall provide the actual audited R&M expenses after the accounts are audited by the AG.

The Petitioner requested the Commission to approve R&M expenses as proposed below:

Table 5.33: R&M Expenses submitted by the Petitioner (in Rs Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
R&M Expenses	42.14	42.98	43.84

Commission Analysis:

As per Regulation 21.2 of the MYT Regulations 2014, Repairs and Maintenance Expenses
“Repairs and Maintenance (R&M) expenses shall be calculated as percentage (as per the norm defined) of Opening Gross Fixed Assets for the year governed by following formula:

$$R\&Mn = Kb * GFAn * Inflation Index$$

where:

R&Mn: Repairs & Maintenance expense for nth year

GFAn: Opening Gross Fixed Assets for nth year

Kb: Percentage point as per the norm

GFA: Gross Fixed Assets at the beginning of the Financial Year

Inflation Index is CPI: WPI:: 60 : 40”

The Average CPI increase of last 3 years is summarized in the Table below:

Table 5.34: Average CPI Increase in past 3 years

Particulars	FY 2011-12	FY 2012-13	FY2013- 14	FY 2014-15
April	186	205	226	242
May	187	206	228	244
June	189	208	231	246
July	193	212	235	252
August	194	214	237	253
September	197	215	238	253
October	198	217	241	253
November	199	218	243	253
December	197	219	239	253
January	198	221	237	254
February	199	223	238	253
March	201	224	239	254
Average	195	215	236	251
% increase		10.44%	9.68%	6.29%
Average Increase				8.80%

The Commission has accordingly considered the average CPI increase of 8.80% for the MYT Control Period.

Accordingly, the inflation index of CPI:WPI:: 60:40 is 7.33%.

In the Business Plan Order, the Commission had observed that while the R&M Expenses of other UTs is in the range of 2~3%, the R&M Expenses for ED-A&N was exceptionally high. Further, the accounts from FY 2012-13 onwards are not available to validate the information submitted by the Petitioner.

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The Commission is of the view that there is a possibility that some expenses of capital nature are being booked as R&M Expenses and the Commission had not approved any norms for R&M Expenses.

The Commission had directed the Petitioner to come up with complete details of Expenses towards Repair & Maintenance Expenses for the past years along with supporting documents at the time filing of MYT Petition. However, the Petitioner has not provided the desired information.

In the absence of any information, the Commission is of the view that the norms cannot be formulated at the levels submitted by the Petitioner in the Business Plan.

Accordingly, the Commission has decided to keep the R&M Expenses at the approved level of FY 2015-16 for the entire MYT Control Period without any escalation. The Commission will revisit the same once the Petitioner submit the norms with detailed justification supported by audited accounts.

Table 5.35: R&M Expenses approved by the Commission (In Rs Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
R&M Expenses	41.31	41.31	41.31

Accordingly, the Commission approves the R&M Expenses as tabulated above.

5.12. Interest and Finance Charges

Petitioner Submission:

As the ED-A&N is a Government Department, the entire capital employed till date has been funded through equity infusion by the Central Government through budgetary support without any external borrowings. The interest on debt/ loan has been calculated considering debt to be 70% of GFA. The details of interest calculation are provided in the Table below:

Table 5.36: Interest on Loan submitted by the Petitioner (In Rs Crores)

No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Opening Normative Loan/WIP	128.2	130.35	132.42
2	Add: Normative Loan during the year/GFA during the Year	14.97	15.11	13.09
3	Less: Normative Repayment allowed during previous years	28.36	41.18	54.22
4	Less: Normative Repayment for the year	12.82	13.03	13.24
5	Closing Normative Loan / GFA	130.35	132.42	132.27
6	Average Normative Loan	129.27	131.38	132.34
7	Rate of Interest (@SBAR rate)	14.75%	14.75%	14.75%
8	Interest on Normative Loan including bank charges	19.07	19.38	19.52

Commission Analysis:

As per Regulation 24 of the MYT Regulations 2014, Interest on loan

“

- a) *The Distribution Licensee shall provide detailed loan-wise, project-wise and utilization-wise details of all of the pending loans.*
- b) *If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.
Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loans.*
- c) *Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.*
- d) *The normative loan outstanding as of 1st April of Control Period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to 31st March of current period (a year before Control Period) from the gross normative loan.*
- e) *The repayment for the Control Period shall be deemed to be equal to the depreciation allowed for the year.
Notwithstanding any moratorium period availed by the Distribution Licensee, the repayment of the loan shall be considered from the first year of the Control Period as per annual depreciation allowed.*
- f) *The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the Control Period, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible debentures.
Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable.*
- g) *Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.*
- 1) *The Distribution Licensee shall make every effort to refinance the loan as long as it results in net benefit to the consumers.
Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Distribution Licensee and the consumers.
Provided further that the Distribution Licensee shall submit the calculation of such benefit to the Commission for its approval.*

2) *The Distribution Licensee shall enable tracking of the loans converted into grants under schemes like APDRP by providing information and data regularly to the Commission and for ensuring that the interest on these loans which has been passed on to the consumers inappropriately in the earlier years shall be recovered from the Distribution Licensee.*"

In view of the above Regulations, the Commission has considered loans at 70% of the GFA for the purpose of interest on loans and allowed interest on loans in earlier Tariff Orders. The Commission for the purpose of interest on loans has considered the same methodology for MYT Control Period.

The Commission has considered normative closing loan at Rs. 126.38 Crores for FY 2015-16 in the Tariff Order dated 31st March, 2015 and same is considered as opening loan for FY 2016-17. The Commission has considered addition to loan at 70% of the capitalization and repayment is considered equivalent to depreciation allowed during the MYT Control Period. The latest prevailing SBI Prime Lending Rate of 14.05% as notified on 05th October 2016 has been considered as rate of interest for MYT Control Period. The Commission has computed the interest charges for MYT Control Period as given in the Table below:

Table 5.37: Interest on Loan approved by the Commission (In Rs Crores)

No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Opening Normative Loan	126.38	131.65	136.01
2	Add: Normative Loan during the year/GFA during the year	14.97	15.11	13.09
3	Less: Normative Repayment for the year	9.69	10.75	11.73
4	Closing Normative Loan/ GFA	131.65	136.01	137.38
5	Average Normative Loan	129.02	133.83	136.69
6	Rate of Interest	14.05%	14.05%	14.05%
7	Interest on Normative Loan	18.13	18.80	19.21

5.13. Interest on Security Deposit

Petitioner Submission:

The Electricity Department collects deposits from consumers and contractors (as Earnest Money Deposit or security). While security deposit from consumers is taken at the time of providing the connection and has to be repaid to the consumers at the time of surrender of the connection; security deposit from contractors is adjusted subsequent to satisfactory completion of the contracted work. These deposits are in the form of Fixed Deposits Receipts (FDR)/ Bank Guarantee and in case of FDR the interest is directly paid to the consumer. Hence, no interest on security deposits has been projected in the Petition.

Commission Analysis:

As per Regulation 6.10 (8) of Electricity Supply Code Regulations, 2010

The distribution licensee shall pay interest, at the bank rate notified by the Reserve Bank of India from time to time on such security deposits taken from the consumer. In this regard it shall be the responsibility of the licensee to keep a watch on the bank rate from time to time. The interest amount of previous financial year shall be adjusted in the energy bill issued in May / June of each financial year depending on billing cycle.

The Bank rate as on 06th March 2016 is 7.75%. The Commission has considered the same rate for the MYT Control Period.

The Security Deposit of Rs.1.34 crore (as per Tariff Order dated 11.04.2014) is considered as available to the Petitioner. As per Section 47 (5) of the Electricity Act, 2003, the Petitioner has to pay the interest on the Security Deposits available with it and it should be claimed in the ARR filed by the Petitioner. The Petitioner should maintain the registers of Security Deposits collected from the consumers every year and pay the interest as per the bank rate of interest. However, the Petitioner has not considered any interest, on the plea that deposits are in the form of Fixed Deposits (FDR) and the interest is directly paid to the consumers. The Commission observes that the Petitioner is not paying the interest to the consumers and hence, no interest is considered for MYT Control Period.

5.14. Interest on Working Capital

Petitioner Submission:

ED-A&N has computed the Interest on Working Capital for FY 2016-17, 2017-18 AND 2018-19 on normative basis. For the purpose of computation of normative working capital and Interest on working capital, the components of working capital have been considered as follows:

- Two month's fuel cost
- One month's power purchase cost
- One month's employee costs
- One month's administration & general expenses
- One month's R&M Cost

The rate of interest on working capital has been considered as per SBI Prime Lending Rate as on 1st April of the respective year, which is 14.75% as on 1st April 2015. The interest on normative working capital for FY 2016-17, FY 2017-18 and FY 2018-19 works out to Rs. 5.52 crores, Rs. 5.78 crores & Rs. 6.04 crores respectively and is given in the Table below.

Table 5.38: Interest on Working Capital submitted by the Petitioner (In Rs Crores)

No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Fuel Cost for two months	12.85	14.45	16.15
2	Power Purchase Cost for one month	16.28	16.34	16.41
3	Employee Cost for one month	4.62	4.63	4.58
4	A&G Expenses for one month	0.15	0.15	0.16
5	R&M Expenses for one month	3.51	3.58	3.65
6	Total Working Capital	37.42	39.16	40.95
	Security Deposit of Consumers	0.00	0.00	0.00
	Net Working Capital for one month after deducting security deposit considered by the Commission	37.42	39.16	40.95
7	SBI PLR Rate	14.75%	14.75%	14.75%
8	Interest on Working Capital	5.52	5.78	6.04

Commission Analysis:

As per Regulation 25 of MYT Regulations 2014, Interest on Working Capital

Working capital for retail supply activity of the licensee shall consist of:

- i. Receivables of two months of billing*
- ii. Less power purchase cost of one month*
- iii. Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt*
- iv. Inventory for two months based on annual requirement for previous year.*

The rate of interest on working capital shall be equal to the base rate for the State Bank of India on the 1st April of the relevant financial year. The interest on working capital shall be payable on normative basis notwithstanding that the licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan worked out on the normative figures.

The rate of interest is @ 9.30% (SBI Base rate) as on 05th October 2015 as on 1st April 2016 and accordingly, the Commission has considered this rate of interest for computation of interest on working capital.

The Commission, based on the cost parameters approved for MYT Control Period has computed the interest on working capital as given in the Table below:

Table 5.39: Interest on Working Capital approved by the Commission (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Receivables of 2 Months Billing	79.47	81.65	83.71
2	Less: Power Purchase Cost 1 Month	28.25	29.09	29.97
3	Less: Consumer Security Deposit Excl. BG/FDR	0.00	0.00	0.00
4	Add: Inventory Based on Annual Requirement for Previous FY for 2 months	0.00	0.00	0.00

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Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
5	Total Working Capital Requirement	51.22	52.56	53.74
6	SBAR Rate (%)	9.30%	9.30%	9.30%
7	Interest on Working Capital	4.76	4.89	5.00

5.15. Return on Equity

Petitioner Submission:

The capital based return has been computed as outlined below:

Table 5.40: Capital Base and Return submitted by the Petitioner (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Gross block at beginning of the Year	183.15	204.53	226.11
2	Less: Accumulated depreciation	26.49	35.80	46.15
3	Net block at beginning of the Year	156.65	168.73	179.95
4	Less: Accumulated consumer contribution	0.00	0.00	0.00
5	Net fixed assets at beginning of the Year	156.65	168.73	179.95
6	Reasonable return @3% of NFA	4.70	5.06	5.40

Commission Analysis:

As per Regulation 27 of MYT Regulations 2014, Return on Equity

“

- a. *Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:
Provided that assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation.*
- b. *The return on the equity invested in working capital shall be allowed from the date of start of commercial operation.*
- c. *16% post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR Petition.”*

The Commission is of the view that historically all the assets have been funded through budgetary support of the Government which is equivalent to equity infusion only.

Accordingly the Commission considers 30% of the approved opening capital base of FY 2016-17 as the opening equity base of FY 2016-17. The Commission has considered addition to equity at 30% of the capitalization.

The return on equity approved by the Commission for the MYT Control Period is summarized in the Table below:

Table 5.41: Return on Equity approved by the Commission (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Opening Equity Amount	54.95	61.36	67.83
2	Equity Addition during year (30% of Capitalization)	6.41	6.47	5.61
3	Closing Equity Amount	61.36	67.83	73.44
4	Average Equity Amount	58.15	64.60	70.64
5	Rate of Return on Equity	16.00%	16.00%	16.00%
6	Return on Equity	9.30	10.34	11.30

5.16. Provision for bad and doubtful debts

Petitioner Submission:

ED-A&N is not proposing any provision for bad debts of revenue from sale of power to the consumers. An exercise is being done to determine category wise bad debts and the same shall be claimed in future filings. Thus, for FY 2016-17, FY 2017-18 and FY 2018-19 ED-A&N has not projected provision for bad debts.

Commission Analysis:

As per Regulation 32. Bad and Doubtful Debt of the MYT Regulations

Bad and doubtful debt shall be limited to 1% of the receivables in the true-up, subject to the condition that amount of bad and doubtful debt is actually written-off in the licensee's books of accounts.

As per Regulations, the bad and doubtful debts have to be reviewed at the true-up stage only, and as the Petitioner has not projected any bad debts, the Commission is not approving any provision for the same in the current Order and will review the same at the time of true-up only.

5.17. Non-Tariff Income

Petitioner Submission:

Non-tariff income for the FY 2016-17, FY 2017-18 and FY 2018-19 has been projected by escalating the estimated non-tariff income of FY 2015-16 by 2% YOY. Accordingly, Non-tariff income for the FY 2016-17, FY 2017-18 and FY 2018-19 has been calculated at Rs. 2.62 Crores, Rs. 2.69 Crores & Rs. 2.75 Crores respectively:

Commission Analysis:

As per Regulation 29 of MYT Regulations 2014, Non-Tariff Income

“

- a) *All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to profit derived from disposal of assets, rents, delayed payment surcharge, meter rent (if any), income from investments other than contingency reserves, miscellaneous receipts from the consumers and income to Licensed business from the Other Business of the Distribution Licensee shall constitute Non-Tariff Income of the Licensee.*
- b) *Interest on security deposits, in excess of the rate specified by the Commission shall be considered as Non-Tariff income of the Licensees.*
- c) *The amount received by the Licensee on account of Non-Tariff Income shall be deducted from the aggregate revenue requirement in calculating the net revenue requirement of such Licensee.”*

The Commission had considered non-tariff income at Rs. 2.57 crore for FY 2015-16. Further, it is observed that non-tariff income is an uncontrollable parameter and is subject to true up based on audited accounts. In absence of further details by the Petitioner, the Commission has considered 2% escalation on the approved Non-tariff Income of FY 2015-16 for the MYT Control Period.

The Non-Tariff Income approved by the Commission is tabulated below:

Table 5.42: Non-Tariff Income Approved by the Commission (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Non-Tariff Income	2.62	2.67	2.73

5.18. Income Tax

Petitioner Submission:

The Petitioner has not submitted any details of Income Tax.

Commission Analysis:

As per Regulation 28 of the MYT Regulations 2014, Income Tax

“

- (a) *Income Tax, if any, on the Licensed business of the Distribution Licensee shall be treated as expense and shall be recoverable from consumers through tariff. However, tax on any income other than that through its Licensed business shall not be a pass through, and it shall be payable by the Distribution Licensee itself.*

(b) The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.”

In the absence of any claim from the Petitioner, the Commission has not approved any income tax claim for the MYT Control Period. The Commission will review the same at the time of true-up.

5.19. Aggregate Revenue Requirement for the MYT Control Period

Petitioner Submission:

The Petitioner has submitted the Aggregate Annual Requirement for the MYT Control Period as per the following Table:

Table 5.43: Aggregate Revenue Requirement submitted by the Petitioner for MYT Control Period (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Cost of Fuel	154.23	173.42	193.78
2	Cost of Power Purchase	195.40	196.13	196.90
3	Employee Expenses	55.46	55.61	54.93
4	R&M Expenses	42.14	42.98	43.84
5	A&G Expenses	1.75	1.84	1.92
6	Depreciation	9.31	10.35	11.31
7	Interest Charges (including interest on WC)	24.59	25.16	25.56
8	Return on NFA /Equity	4.70	5.06	5.40
9	Provision for Bad Debit	0.00	0.00	0.00
10	Total Revenue Requirement	487.58	510.55	533.63
11	Less: Non-Tariff Income	2.62	2.69	2.75
12	Net Revenue Requirement	484.96	507.86	530.88

Commission Analysis:

The Commission, based on the detailed analysis of the cost parameters, has considered the ARR for MYT Control Period as given in the Table below:

Table 5.44: Aggregate Revenue Requirement approved by the Commission for MYT Control Period (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Cost of Fuel	122.29	132.35	142.87
2	Cost of Power Purchase	216.72	216.72	216.72
3	Employee Expenses	55.46	55.61	54.94
4	R&M Expenses	41.31	41.31	41.31
5	A&G Expenses	1.75	1.83	1.91
6	Depreciation	9.69	10.75	11.73
7	Interest on Loan	18.13	18.80	19.21
8	Interest on Consumer Security Deposit	0.00	0.00	0.00
9	Interest on Working Capital	4.76	4.89	5.00
10	Return on Equity	9.30	10.34	11.30
11	Provision for Bad Debit	0.00	0.00	0.00
12	Total Revenue Requirement	479.42	492.59	504.98
13	Less: Non-Tariff Income	2.62	2.67	2.73
14	Net Revenue Requirement	476.80	489.92	502.25

5.20. Revenue at Existing Tariff and Gap

Petitioner Submission:

The estimated revenue at existing tariff for FY 2016-17, FY 2017-18 and FY 2018-19 and the gap is provided in the Table below:

Table 5.45: Revenue Gap submitted by the Petitioner for MYT Control Period (In Rs Crores)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Net Revenue Requirement	484.96	507.86	530.88
2	Revenue from Sale of Power	129.03	135.25	141.85
3	Net Gap During the Year	355.93	372.61	389.03
4	Add: Previous Year Gap	0.00	0.00	0.00
5	Total Gap	355.93	372.61	389.03

Commission Analysis:

Based on the slab-wise information provided by the Petitioner and category-wise sales, connected load and number of consumers approved by the Commission, the Commission has computed the revenue from sale of power for the MYT Control Period as follows.

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Table 5.46: Revenue at Existing Tariff Approved by the Commission for FY 2016-17 (In Rs Crores)

S. No.	Category	No. of Consumers	Energy Sales (In MU)	Existing Tariff		Energy Charge	Total Revenue
				Energy Charges (in Rs /Unit)	Minimum Charge per connected load or part thereof per month		
1	Domestic						
	-0 to 100 units		65.95	2.00	Rs.30.00 per KVA connected Load or part thereof per Month	13.19	
	-101 to 200 units		39.57	4.00		15.83	
	-201 units and above		26.38	5.50		14.51	
Sub-Total		106553	131.90			43.53	43.53
2	Non Domestic						
	-0 to 200 units		38.22	5.95	Rs. 50.00 per KVA connected Load or part thereof per Month	22.74	
	-201 to 500 units		14.01	7.15		10.02	
	-501 units & above		11.46	8.00		9.17	
Sub-Total		18881	63.69			41.93	41.93
3	Industrial						
	-0 to 500 units		10.34	4.90	a) Rs.50.00 per H.P. Connected load or part thereof. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity	5.07	
	- 501 units & above		5.57	5.50		3.06	
Sub-Total		560	15.91		Rs. 30/- per KVA per month	8.13	8.13
4	Public Lighting						
	All Units	669	9.37	4.95	Rs.60.00 per KVA connected Load or part thereof per month	4.64	4.64
4	Agriculture						
	All Units	263	0.87	1.40	Rs.15.00 per KVA connected Load or part thereof per month	0.12	0.12
6	Bulk Supply						
	All Units	64	30.86	10.15	Rs.50.00 per KVA connected Load or part thereof	31.33	31.33
Total		126991	252.60			129.67	129.67

Keeping in view the ARR and Revenue from sale of power approved above, the Commission hereby approved the revenue gap for the MYT Control Period as shown in the Table below:

Table 5.47: Revenue Gap at Existing Tariff Approved by the Commission for FY 2016-17 (In Rs Crores)

Sr. No	Particulars	FY 2016-17
1	Net Revenue Requirement	476.80
2	Revenue from Sale of Power	129.67
3	Net Gap During the Year	347.13
4	Add: Previous Year Gap	0.00
5	Total Gap	347.13

5.21. Average Cost of Supply

Petitioner Submission:

The Petitioner has submitted the Average Cost of Supply for the Control Period in the Table below:

Table 5.48: Average Cost of Supply submitted by the Petitioner for MYT Control Period (Rs/ Unit)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Average Cost of Supply	18.97	18.81	18.61
2	Average Billing Rate	5.05	5.01	4.97
3	Net Gap	13.92	13.80	13.64

Commission Analysis:

The Commission has computed the Average Cost of Supply based on the expense and revenue components approved in previous sections as shown in the Table below:

Table 5.49: Average Cost of Supply approved by the Commission for MYT Control Period (Rs/ Unit)

Sr. No	Particulars	FY 2016-17
1	Average Cost of Supply	18.88
2	Average Billing Rate	5.13
3	Net Gap	13.74

As seen from above table, the average cost of supply is progressively decreasing. This is attributable to substantial reduction in T&D Losses.

6. Tariff Principles and Design

6.1.Preamble

The Commission in determining the Aggregate Revenue Requirement for MYT Control Period and Retail Supply Tariff for FY 2016-17, has been guided by the provisions of the Electricity Act, 2003, the Tariff Policy, Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and MYT Regulations 2014 notified by JERC under Section 64 of the Act which lay down the broad principles, which shall guide determination of retail tariff.

6.2.Principles of Tariff Design

As per Regulation 36. Cross Subsidy of MYT Regulations 2014, Allocation of Cost to Serve and Tariff Design

- a. *The Commission shall gradually move towards reduction of cross subsidy in accordance with Electricity Act, Tariff Policy & such other guidelines of the government as applicable.*
- b. *The Distribution Licensee shall compute the consumer category-wise cost of supply as per the methodology elaborated below.*
- c. **Allocation of Cost:** *The Cost to serve shall be allocated to the consumer categories in the following manner:*

Step 1: Functional Demarcation of Cost - *Total cost shall be divided on the basis of functions performed such as power purchase, distribution etc.*

Step 2: Classification of Cost –*Each of the functionalized costs shall be further classified, based on its intrinsic nature into Demand related cost, Energy related cost and Customer related cost. Demand related costs shall generally be of fixed nature, related to capacity creation and shall include interest on capital borrowing, depreciation etc. Energy cost shall be related to quantum of electricity consumption of consumer, such as fuel cost, interest on working capital, etc. Consumer related cost shall include operating expenses associated with meter reading, billing and accounting.*

Step 3: Allocation of Cost

- 1) **Allocation of Demand Costs:** *Demand costs of all three functions shall be allocated among consumer categories on the basis of average coincident peak demand of the tariff categories (average of past 12 months). To facilitate determination of average coincident peak demand for the various tariff categories, load research shall be made an integral part of the operations of the DISCOMs and systematic load research exercises shall be initiated.*

- 2) **Allocation of Energy Costs:** Energy related costs of Distribution functions shall be allocated to consumer categories on the basis of ratio of electricity consumption of each consumer category to the total electricity consumption under the purview of the Distribution Licensee. Energy related costs of Power purchase shall be allocated to various tariff categories on the basis of block approach on merit order dispatch and incremental principle, where each tariff category shall be allocated the incremental (energy related) power purchase cost on the basis of their respective share in the incremental power purchase. For the purpose of operationalizing the block approach and incremental principle, the Commission shall identify and notify a suitable year as the "base year".
- 3) **Allocation of Customer Costs:** Customer related costs shall be allocated to consumer categories on the basis of the ratio of number of consumers in each category to total number of consumers under the purview of the Distribution Licensee.
- d. Summation of allocated Demand cost, Energy cost and Customer cost across functions shall be total Cost to serve for respective consumer categories. Cost to serve reduced by revenue from a consumer category shall give total subsidy for that category. Total subsidy for a consumer category reduced by Government subsidy, if any, shall be cross-subsidy for that consumer category.
- e. The consumers below poverty line who consume power below a specified level, say 30 units per month, shall receive a special support through cross subsidy.
- f. **Cross-subsidy surcharge and additional surcharge in Open Access**
 1. The amount received or to be received by the licensee on account of cross-subsidy surcharge and additional surcharge, as approved by the Commission from time to time in accordance with Regulations specified by the Commission, shall be shown separately against the consumer category that is permitted open access as per the phasing plan.
 2. Cross-subsidy surcharge and additional surcharge shall be shown as revenue from the tariff from the consumer categories who have been permitted open access and such amount shall be utilized to meet the cross-subsidy requirements of subsidized categories and fixed costs of the Distribution Licensee arising out of his obligation to supply. Provided that the licensee shall provide such details in its annual filings.
- g. **Tariff Design**
 - 1) The Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.
 - 2) After the costs have been allocated based on the method specified in clauses (c) and (d) above, tariffs for different consumer categories shall be designed with due regard to factors provided under Section 62(3) of the Act.
 - 3) The time of day tariff would be structured across three time slabs to denote normal, peak and off-peak periods. The time-periods would vary according to different seasons of the year i.e. summer, winter and the monsoon season. The peak tariff would be 10%-20% higher than the normal tariff and the off-peak tariff would be priced 5%-10% lower than the normal tariff.

- 4) *Time of Day tariff may be introduced in a phased manner, wherein in phase 1 it would be for HT Consumers, in phase 2 – for LT consumers consuming more than 25 KW and in phase 3 for LT consumers consuming more than 10 KW.*

It may be noted that the sole source of power is own generation only with no availability of external generating sources. Further, more than 99% of sales are at LT level only, in which Domestic and Commercial Categories constitute more than 97% share.

Accordingly, the Commission is of the view that the functional demarcation of costs will not be of substantial impact on the present tariff structure. Further, due to practical constraints open access is not an option for the consumers of Andaman and Nicobar Islands.

In view of the above, the tariff needs to be designed in such a way that cross subsidy between different categories of consumers is progressively brought within $\pm 20\%$ of average cost of supply and that even for BPL category consumers, tariff rates are close to 50% of the average cost of supply. The Commission has taken a considerate view in this regard balancing the interest of the utility and the consumer, thus compensating the department with additional revenue and providing a reasonable hike in consumers' tariff.

Accordingly, the Commission has designed the tariff for different categories of consumers as brought out subsequently.

6.3. Tariff Proposal

Petitioner Submission:

The basic requirement of any Tariff Proposal is that it has to be transparent and justifiable against various policy guidelines and the framework evolved by the JERC and various SERCs. In the light of the experience gained by other utilities in implementation of the Tariff Orders and regulatory requirements specified under various states and policy guidelines an attempt has been made to improve upon the present tariff design. The Cost of supply computes to Rs 18.97 per unit. Average revenue per unit is Rs. 5.05. Thus, there is gap of Rs. 13.92 per unit.

It is submitted that over 95% of power is generated from diesel based generating stations. There is no other source of energy. Major component of cost of supply is cost of HSD and Lubricants. In this Tariff Proposal partial recovery of cost is proposed.

It is submitted that in ED-A&N, consumer mix has mainly contribution from Domestic consumers towards total energy consumption. The proposal for increase in tariff aims at putting less burden on domestic consumers specially those falling under lowest slab. At the proposed tariff only 28.45% of the Annual Revenue Requirement would be recovered.

Considering the above, the Tariff Proposal for FY 2016-17 for individual categories is given below along with the comparison of existing and proposed energy charges.

Table 6.1: Existing v/s Proposed Tariff for FY 2016-17 submitted by the Petitioner

Category	Existing Charges		Category	Proposed Charges	
	Energy Charge (Rs./KwH)	Minimum Charge per connected load or part thereof per month		Energy Charge (Rs.Kwh)	Minimum Charge per connected load or part thereof per month
Domestic Connection			Domestic Connection		
-0 to 100 units	2.00	Rs.30.00 per KVA connected Load or part thereof per Month	-0 to 100 units	2.00	Rs.30.00 per KVA connected Load or part thereof per Month
-101 to 200 units	4.00		-101 to 200 units	4.20	
-201 units and above	5.50		-201 to 500 units	6.05	
			-501 units & above	6.35	
Commercial			Commercial		
-0 to 200 units	5.95	Rs. 50.00 per KVA connected Load or part thereof per Month	-0 to 200 units	6.25	Rs. 50.00 per KVA connected Load or part thereof per Month
-201 to 500 units	7.15		-201 to 500 units	7.85	
-501 units & above	8.00		-501 to 1000 units	9.20	
			-1001 units & above	9.60	
Industrial			Industrial		
-0 to 500 units	4.90	a) Rs.50.00 per H.P. Connected load or part thereof. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity	-0 to 500 units	5.15	a) Rs.50.00 per H.P. Connected load or part thereof. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity
- 501 units & above	5.50		- 501 to 1000 units	6.05	
			- 1001 units & above	6.60	
Bulk Supply	10.15	Rs.50.00 per KVA connected Load or part thereof	Bulk Supply	10.65	Rs.50.00 per KVA connected Load or part thereof
Public Lighting	4.95	Rs.60.00 per KVA connected Load or part thereof per month	Public Lighting	5.20	Rs.60.00 per KVA connected Load or part thereof per month
Agriculture	1.40	Rs.15.00 per KVA connected Load or part thereof per month	Agriculture	1.40	Rs.15.00 per KVA connected Load or part thereof per month

Commission Analysis:

The utility has not been meeting its cost from the approved tariff. Infact, in 2015-16 only 19.25% of the cost could be recovered from the tariff. The Petitioner has proposed an increase of 6.93% in the Tariff for FY 2016-17.

The Commission, after analysis of the various components of Aggregate Revenue Requirement for FY 2016-17, has come to the conclusion that the utility has to increase the average tariff from the existing level of Rs. 5.13 per unit to Rs. 18.83 per unit to recover the full amount of ARR as projected for FY 2016-17.

The Commission also notes that approximately 84% of the consumers fall in the Domestic category.

The difficult and remote areas, number of small islands, distance between the islands and logistic / communication problems are also considered by the Commission. Having regard to the above considerations, in order to avoid tariff shock, the Commission has approved a marginal increase of 6.74% in tariff.

The Commission is of the view that the Government connections have sizeable share of the overall consumption across Andaman and Nicobar Islands. Thus, the Commission finds it appropriate to create a separate category for all the Government connections from this year.

The Commission has determined the retail tariff for FY 2016-17 also keeping in view the guiding principles as stated in the Electricity Act 2003, the Tariff Policy, MYT Regulations 2014, the suggestions/objections of the stakeholders in this regard and the Petition submitted by the ED-A&N.

The Commission approves the tariff for FY 2016-17 as given below:

Table 6.2: Tariff Approved by the Commission for FY 2016-17

Category	Approved Charges	
	Energy Charge (Rs./KwH)	Minimum Charge per connected load or part thereof per month
Domestic Connection		
-0 to 100 units	2.00	Rs.30.00 per KVA connected Load or part thereof per Month
-101 to 200 units	4.25	
-201 units and above	6.00	
Commercial		
-0 to 200 units	6.25	Rs. 50.00 per KVA connected Load or part thereof per Month
-201 to 500 units	7.85	
-501 units & above	9.00	
Government Connections		
-0 to 500 units	7.85	Rs. 50.00 per kW/KVA connected Load or part thereof per Month
-501 units & above	9.00	
Industrial		
-0 to 500 units	5.25	

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Category	Approved Charges	
	Energy Charge (Rs./KwH)	Minimum Charge per connected load or part thereof per month
- 501 units & above	6.25	a) Rs.50.00 per H.P. Connected load or part thereof. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity
Bulk Supply	10.75	Rs.50.00 per KVA connected Load or part thereof
Public Lighting	5.50	Rs.60.00 per KVA connected Load or part thereof per month
Agriculture	1.50	Rs.15.00 per KVA connected Load or part thereof per month

The Revenue at revised tariff approved by the Commission for FY 2016-17 is given below:

Table 6.3: Revenue at Revised Tariff Approved by the Commission for FY 2016-17

S. No.	Category	No. of Consumers	Energy Sales (In MU)	Approved Tariff*		Energy Charge	Total Revenue
				Energy Charges (in Rs /Unit)	Minimum Charge per connected load or part thereof per month		
1	Domestic						
	-0 to 100 units		65.95	2.00	Rs.30.00 per KVA connected Load or part thereof per Month	13.19	
	-101 to 200 units		39.57	4.25		16.82	
	-201 units and above		26.38	6.00		15.83	
	Sub-Total	106553	106553	131.90		43.53	45.84
2	Non Domestic						
	-0 to 200 units		38.22	6.25	Rs. 50.00 per KVA connected Load or part thereof per Month	23.88	
	-201 to 500 units		14.01	7.85		11.00	
	-501 units & above		11.46	9.00		10.32	
	Sub-Total	18881	18881	63.69		45.20	45.20
3	Industrial						
	-0 to 500 units		10.34	5.25	a) Rs.50.00 per H.P. Connected load or part thereof. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity	5.43	
	- 501 units & above		5.57	6.25		3.48	
	Sub-Total	560	560	15.91		8.13	8.91
4	Public Lighting						
	All Units	669	9.37	5.50	Rs.60.00 per KVA connected Load or part thereof per month	5.15	5.15
5	Agriculture						
	All Units	263	0.87	1.50	Rs.15.00 per KVA connected Load or part thereof per month	0.13	0.13
6	Bulk Supply						
	All Units	64	30.86	10.75	Rs.50.00 per KVA connected Load or part thereof	33.18	33.18
	Total	126991	252.60			138.41	138.41

* Note: The Commission has not considered revenue projections for Government connections separately as segregated information is not available at this stage.

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The revenue gap at revised tariff approved by the Commission is given in the Table below:

Table 6.4: Revenue Gap at Revised Tariff Approved by the Commission for FY 2016-17

Sr. No	Particulars	FY 2016-17
1	Net Revenue Requirement	476.80
2	Revenue from Sale of Power	138.41
3	Net Gap During the Year	338.39
4	Add: Previous Year Gap	0.00
5	Total Gap	338.39

The following comparative chart gives the overview of the category wise levels of %age recovery of ACOS at existing and revised tariffs.

Table 6.5: %age recovery of ACOS at Existing and Revised Tariff Approved by the Commission for FY 2016-17

S. No.	Category	Existing Tariff		%age Hike	Approved Tariff	
		ABR	%age of ACOS		ABR	%age of ACOS
1	Domestic	3.30	17.48%	5.30%	3.48	18.41%
2	N-Domestic	6.58	34.88%	7.81%	7.10	37.60%
3	Industrial	5.11	27.07%	9.59%	5.60	29.67%
4	Public Lighting	4.95	26.22%	11.11%	5.50	29.14%
5	Agriculture	1.40	7.42%	7.14%	1.50	7.95%
6	Bulk Supply	10.15	53.77%	5.91%	10.75	56.95%
7	Overall	5.13	27.20%	6.74%	5.48	29.03%

The Commission observes that the Revenue Gap of the previous years was funded by the Government as a budgetary support. Previously, ED-A&N had submitted a copy of the letter from Administration of the UT, Andaman and Nicobar Islands regarding budgetary support to meet the Revenue Gap. However, the Petitioner has not submitted any such letter for FY 2016-17. The Commission recommends that the ED-A&N take up the matter with the Administration, UT, Andaman and Nicobar Islands to get the budgetary support to meet the Revenue Gap for FY 2016-17.

7. Tariff Schedule

7.1. Tariff Schedule

S. No.	CATEGORY	MINIMUM CHARGES PER CONNECTED LOAD OR PART THEREOF PER MONTH	ENERGY CHARGES
1.	DOMESTIC		
i	Up to 100 units	Rs.30.00 per KVA	2.00
ii	101 units – 200 units		4.25
iii	201 units & above		6.00
2.	COMMERCIAL		
i	Up to 200 units	Rs. 50.00 per KVA	6.25
ii	201 units to 500 units		7.85
iii	501 units & above		9.00
3.	GOVERNMENT CONNECTIONS		
i	Up to 500 units	Rs. 50.00 per kW/KVA	7.85
ii	501 units & above		9.00
4.	INDUSTRIAL SUPPLY		
I	Up to 500 units	a) Rs.50.00 per H.P. b) Rs.200.00 per month for Rice, Flour Millers of Rural areas who are having 15 HP capacity.	5.25
li	501 units & above		6.25
5.	IRRIGATION, PUMPING & AGRICULTURE		
I	Up to 500 units	Rs.15.00 per KVA	1.50
6.	PUBLIC LIGHTING		
I	Public lighting system managed by Municipal Corporation, Panchayat and Street lights maintained/outsourced to an external agency	Rs.60.00 per KVA	5.50
7.	BULK SUPPLY		
i	Bulk category	Rs.50.00 per KVA	10.75
8.	Temporary Supply		
i	Temporary Supply	Rate shall be the three times the rate applicable to the relevant category of consumers.	

7.2.Applicability

Category	Applicability	Point of Supply/Notes
<p>1. Domestic</p>	<p>This schedule shall apply for single delivery point including light, fan, domestic pumping sets and household appliances.</p> <p>a) Single private house/flat. b) Housing colonies and multi storied flats/buildings as defined in Electricity Supply Code Regulations notified by the JERC.</p>	<p><i>NOTE: Where a portion of the dwelling is used for the mixed load purposes the connection shall be billed for the purpose for which the tariffs are higher</i></p>
<p>2. Commercial</p>	<p>This schedule shall apply to all consumers, using electrical energy for light, fans appliances like pumping sets, motors of rating upto 3 HP used for commercial purpose, central air conditioning plant, lift ,welding set, small lathe, electric drill, heater, battery charger, embroidery machine, printing press, ice candy, dry cleaning machines, power press, small motors in commercial establishments/ non-residential private premises such as Printing Press, Hotels, Rest Houses, Restaurants, Hostels, Nursing Homes, Bus-stand, clubs, Auditorium, Communication, Cinema Theatre, Opera, Circus, Exhibition, Bakeries and Grinders and installations for private gains etc. Commercial supply shall also be applicable to multi consumer complex including commercial complexes as defined in the Electricity Supply Code Regulations notified by the JERC.</p> <p>This schedule shall also apply to the Places of Worship, like Temples, Mosques, Churches, Gurudwaras, Buddhist Pongi Chung (except</p>	

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Category	Applicability	Point of Supply/Notes
	residential areas), Public Pooja celebration and religious ceremonies. No separate circuit/connection for power load including pumping set/central air conditioning plant, lifts etc. is permitted.	
3. Government Connections	The schedule shall apply to all Government Connections.	The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.
4. Industrial Supply	The schedule shall apply for supply of energy for lighting , fan and power to Industrial establishments & Industries such as wood based, cottage, small scales, medium scales, finishing shell based and any other establishments/ organizations engaged in the manufacturing and processing goods for sale, rice mills, flour mills, workshops, Drydock, factories base repair organization, Public water works & Gem cutting units	The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.
5. Irrigation, Pumping & Agriculture	This schedule shall apply to all consumers for use of electrical energy for irrigation and agricultural purposes including animal husbandry	The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.
6. Public Lighting	This tariff schedule shall apply for lighting on public road, footpath, and streets and through fares in parks & markets etc. Cost of spares, materials and labour required for maintenance to be borne by respective Panchayati Raj Institutions/Local Bodies.	Cost of spares, materials and labor required for maintenance to be borne by respective Panchayati Raj Institutions / Local Bodies.

Category	Applicability	Point of Supply/Notes
7. Bulk Supply	This tariff schedule shall apply to general or mixed loads receiving supply of energy through a bulk energy meter either at HT or LT supply and distribution is maintained by them. For dedicated transformer the complete cost of Technical transmission lines of transformers sub-station, switch gear & installation is to be borne by the consumer	The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.
8. Temporary Supply	The supply may be given for a period as per the provisions of JERC Supply Code Regulations 2010 and amendments thereon.	

7.3.General Conditions of HT and LT Supply

The above mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

- 1) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of Section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.
- 2) If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of increase of load or due to replacement of lamps, fans, fuses, switches, low voltage domestic appliances, fittings, etc it shall neither fall under unauthorized use of electricity (Section 126 of EA 2003) nor under theft of electricity (Section 135 of EA 2003).
- 3) If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply after giving 15 days' notice as per provision of the Act & Supply Code Regulation.
- 4) **Additional charges for exceeding contracted load/contracted maximum demand,**
If in any month the consumer exceeds his contracted load/contracted demand the portion of the load/demand in excess of the contracted load/demand will be dealt as per the provisions made in JERC (Electricity Supply Code), 2010.

This will not be applicable to the consumers who has self-declared their connected load as the provision under Regulation 4.13 (2) of Supply Code Regulations, 2010 as amended from time to time.

5) Power Factor Incentive

The monthly average power factor of the plant and apparatus installed by the consumer should be maintained at better than 90% lagging. The monthly average power factor shall mean the ratio expressed as percentage of total kWh to total kVAh supplied during the month. The ratio shall be rounded up to two figures.

In case the monthly average power factor is above 95%, consumer shall get a rebate at a rate of 1% on billed energy charges for each 1% increase in monthly average power factor above 95%. For example, if the average power factor in a month is 97%, then the consumer shall be given rebate of 2% on the billed energy charges for that month.

6) Incentive for usage of alternative (Renewable) Sources of Energy:

A concession of Rs. 50/- (Rupees Fifty only) per month in electricity bill will be given to the consumers using solar water heater in domestic/commercial establishments on one-time verification of original invoice of its purchase and verification of the installation of equipment by the Engineer in charge of the area. The concession will be given to the consumers on the basis of the ownership of equipment; concession will be divided amongst the consumers, if they are sharing common equipment of solar water heater.

7) Late Payment Surcharge

For the existing connections, if the payment is made after the due date (as mentioned on the bill), the consumer is liable to pay additional charges on delayed amount at the rate of 2% per month. However for disconnected consumers, additional amount at the rate of 10% per annum on the outstanding amount shall be charged.

8) Advance Payment Rebate:

If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

9) Prompt Payment Rebate:

If payment is made at least 7 days in advance of the due date of payment a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.

10) Taxes & Duties

The tariff does not include any tax or duty etc. on electricity energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall be payable by the consumer in addition to the tariff charges.

8. Directives

8.1. Directives liable for action under Section 142 of Electricity Act 2003 and various provisions of applicable Regulations in case of further Non-Compliance

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it has been observed that the some of the directives issued in previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission is of the view that substantial time has already been given to the utility for compliance of these directions. Thus, Commission hereby directs the utility to comply with the directions mentioned below in the given timeframe failing which, the Commission will be forced to take appropriate action under various provisions of Electricity Act 2003 and Regulations framed by JERC.

8.1.1. Filing of Review and True-up Petition for FY 2012-13 (Now from FY 2012-13 to FY 2015-16)

As per Regulation no. 8 of JERC Tariff Regulations 2009, the Petitioner is directed to submit the Review of FY 2012-13 along with the ARR and Tariff Petition for FY 2013- 14 in line with JERC Regulations as modified from time to time. The Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons for FY 2012-13 during Review.

After audited accounts of FY 2012-13 are made available, the Commission shall undertake similar exercise as mentioned above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up', for which True-up Petition should be submitted along with audited accounts for consideration by the Hon'ble Commission.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	"Accounts for the period April'12 to September'12 is under compilation. Review Petition will be filed after preparation accounts for the period. Hon'ble	In view of the revised estimates submitted by the Petitioner for FY 2012-13 along with half yearly actuals along with ARR and Tariff Petition for FY 2013-14, Commission has undertaken the review of FY 2012-13.

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	Commission may kindly allow the same”	After audited accounts of FY 2012-13 are made available; the Commission shall undertake similar exercise as mentioned above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called ‘Truing Up’, for which True-up Petition should be submitted along with audited accounts for consideration by the Commission along with ARR & Tariff Petition for FY 2014-15.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	<p>It is submitted that the Annual accounts for the FY 2012-13 has not been audited.</p> <p>The Petition for true-up shall be submitted after completion of audit.</p> <p>It is further submitted that the accounts for the period April’13 to September’13 is under compilation. Submission for review shall be submitted subsequently.”</p>	<p>The Petitioner is directed to expedite the preparation of annual accounts of FY 2012-13 and file true-up Petition for FY 2012-13. The preparation of annual accounts for FY 2012-13 was expected to be completed by this year; the delay in submission of the same is not appreciated and Commission directs the utility to file true-up along with the audited accounts in the next ARR & tariff filing. The Commission further directs the Petitioner that the accounts must be prepared on Commercial Principles of Accounting.</p>
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	No Submission	<p>The inaction of the Petitioner is regretted. The Petitioner is once again directed to expedite the preparation and auditing of annual accounts for FY 2012-13, FY 2013-14 and FY 2014-15 by 31st October 2015 and submit them to the Commission (Only proforma Accounts are received for FY 2011-12 and FY 2012-13).</p>
Present Petition	<p>It is submitted as follows:</p> <p>i. The audited Annual accounts for the FY 2012-13 along with audit certificate issued by AG is attached.</p> <p>ii. The Annual Accounts for the FY 2013-14 has been</p>	<p>The Commission has noted with serious concern that the Petitioner is yet to take any action on preparation of accounts on commercial principles from FY 2012-13 onwards.</p> <p>The Commission directs the Petitioner to prepare accounts on Commercial Principles and get them audited before 30th October 2016 for FY 2012-13, FY</p>

	<p>prepared and submitted to AG for audit. The unaudited accounts for the FY 2013-14 is attached.</p> <p>iii. The Annual Accounts for the FY 2014-15 is under preparation.</p>	<p>2013-14, FY 2014-15 and FY 2015-16 and file the true-up Petitions for these years along with next Petition failing which, the Commission will be constrained to take appropriate action against the Petitioner.</p>
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8.1.2. Preparation of Fixed Asset Register: - Ref Petition 65/2012 -TO June 04, 2012

<p>ED-A&N has stated that the complete updated data of fixed assets is not available. Unless the function wise, asset wise data is updated, correct asset value and depreciation thereon cannot be ascertained. The Petitioner is directed to submit the updated Fixed Asset Register in line with JERC Regulations as modified from time to time, with next ARR & Tariff Petition.</p>		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14</p>	<p>“Hiring of consultants for preparation of fixed assets register in line with JERC Regulations is under process. Records are required to be collected & compiled from various power houses spread across A&N Islands. In view of the above ED-A&N prays for more time to comply with the directive.</p>	<p>The submission of the Petitioner is noted. The timeline stipulated for the submission as per the direction should be adhered to and progress report should be made available by September 30’2013.</p>
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>“The proposal for hiring of Consultant on Selection basis for preparation of Fixed Assets Register was turned down by the A&N Administration with the remarks to go for open tender. The tender for hiring of consultants for preparation of Fixed Assets Register has been floated. The Fixed Assets Register</p>	<p>The submission of the Petitioner is noted. The timeline as committed by the Petitioner in its submission should be adhered to and progress report should be submitted before the Commission by 30th September 2014, failing which the Commission will be constrained to initiate appropriate actions against the utility.</p>

	<p>will be prepared within six months after finalization of tender for hiring of consultant for the purpose.</p> <p>In view of the same the Electricity Department, A&N Administration prays before the commission to allow more time for submission of Fixed Assets Register.”</p>	
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16</p>	<p>The Petitioner has not submitted any compliance.</p>	<p>The non-compliance of the directive by the Petitioner is regretted. The preparation of assets register should be completed by 30th September 2015 and progress report should be submitted by 30th June 2015, otherwise the commission will be compelled to take action under Section 142.</p>
<p>Present Petition</p>	<p>It is submitted that the draft Fixed Asset Register has been prepared on the basis of the details/records from various divisions/offices. It is further submitted that the Asset Register is being prepared for the first time since inception and the details of assets spread across various Islands are to be incorporated apart from the same being reconciled with the Audited Annual accounts. It is submitted that the Hon'ble Commission may kindly allow some more time for compliance of the directive.</p>	<p>The Commission has noted with serious concern that the Petitioner is yet to submit the Fixed Asset and Depreciation Register.</p> <p>The Commission directs the Petitioner to prepare Fixed Asset and Depreciation Register and get them audited before 30th October 2016 for FY 2012-13, FY 2013-14, FY 2014-15 and FY 2015-16 and file along with the next Petition failing which, the Commission will be constrained to take appropriate action against the Petitioner.</p>

8.1.3. Load Forecasting Study

The Petitioner is directed to conduct a detailed load forecasting study for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) in order to understand the load requirements in their area at various periods and submits to Commission along with next tariff Petition.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“The Central Electricity Authority (CEA), New Delhi under MOP, Govt. of India had conducted 18th EPS (Electric Power Survey) and submitted report containing forecast detail of A&N Islands also..... “	Action taken is noted. The growth projections of the load, sales and consumers etc. as per ED (A&N) are at variance with 18 th EPS. This may be taken up with CEA for alignment. The Petitioner is directed to submit the status report and progress in this regard by September 30’ 2013.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	“The department is carrying out Load Forecasting study with respect to various categories of consumers across all inhabited islands viz-a-viz available sources of power. Subsequent to the compilation of above assessment report, the matter will be taken up with CEA as per the directive of the Hon’ble Commission to align the variance with the 18th EPS report. The Hon’ble Commission may kindly allow the same.”	The submission of the Petitioner is noted. The Commission observes that considerable amount of time has passed since the issuance of the above directive; however, very little progress has been made. The Commission does not appreciate the delay by the Petitioner in adherence to the above directive. The status report on the same should be submitted before the Commission by 30 th September 2014 failing which the Commission will be constrained to take appropriate actions against the utility.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not reported any compliance.	The inaction of the Petitioner in this regard is regretted. The Petitioner should complete the work of load forecasting study by 31st December 2015. If the report of ED –A&N is in variance with the status of CEA, the reasons may be explained in the report and

		a status report on the same should be submitted by 30 th September 2015.
Present Petition	The copies of load forecast submitted to CEA is attached herewith as Exhibit-1.	The Commission has observed that the Petitioner has submitted only the summary of projections as compliance. The Petitioner is directed to submit the detailed report covering the methodology/approach and findings to arrive at the load forecasting by 30 th June 2016.

8.1.4. Optimization of Fuel Cost

There are 135 no. of diesel generating sets excluding 4 DG sets of M/s SPCL located in 29 islands of Andaman & Nicobar catering to their electricity needs; the capacity of diesel generating sets of ED-A&N varies from 12 KW to 2500 KW. The diesel is generally received in bulk in big tankers, thereafter it is transported to various islands in drums. Obviously, there are losses in transportation, storage and handling of which no assessment is available. It is understood that presently there is no system through which actual fuel consumption per generating station can be ascertained for generation of one unit of energy. In fact, there should also be proper accounting of generating unit wise fuel receipts & issues. The ED A&N is directed to evolve a system of accounting of fuel received at port, dispatched island wise, actual quantity received on the islands and actual quantity consumed island wise for generating electricity; so that actual fuel consumption per unit generation along with the variation could be worked out. Accordingly the Petitioner is directed to furnish such details along with the next filing.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“As per the Directive of the Hon’ble Commission the ED, A&N has already implemented a system of accounting of power house-wise fuel consumption and actual fuel consumption per unit of generation is being submitted.	Inconsistencies have been observed in the submitted information in the Petition in the absence of actual data in respect of PLF, heat rate, consumption of HSD, lubricating oil of the DG Sets owned by the ED- A&N. Further with reference to page xxxiv (a) & (b), the Petitioner has used the Station Heat Rate and Lubricating Oil consumption norm of the IPP to project the consumption of HSD and lubricating oil for FY 2012-13 and FY 2013-14 for its own DG sets, while the Commission desired the information with regard to actual consumption of HSD, Lubricating oil, actual generation, auxiliary consumption, calorific value of fuel and its

		<p>density to determine the actual heat rate for FY 2011-12, FY 2012-13(H1) and as such the additional information as submitted by the Petitioner is accordingly considered for estimating the cost of power purchase and fuel & lubricants. As can be observed from the actual data, the PLFs, worked out station heat rate of the DG sets owned by the ED-A&N compare poorly with DG sets of IPP.</p> <p>Following submission of Petition 124/2014, the Petitioner has informed the Commission about the hiring of the DG Sets of 10 MW and 5 MW without prior approval of the same under Section 86(1) or Section 62 of EA 2003, this is a fait accompli, which may not be falling under merit order procurement of Power. This will distort the assessment of quantities of Power Purchase under Self Generation or Purchase from IPP or generated through hired sets. It is hereby directed that the Petitioner should follow consistency in the submissions made to the Commission.</p> <p>In view of the above, the Petitioner is also directed to carry out an energy audit to ascertain the pilferage and technical losses and list them separately.</p>
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>“To carry out an audit to ascertain the pilferage and loss, Rural Electrification Corporation has been approached to submit a Detail Project Report (DPR). The report ascertaining the pilferage and Loss will be submitted soon after its receipt from REC.”</p>	<p>The submission of the Petitioner is noted. The compliance of the above directive should be ensured before the next ARR & tariff filing and status report should be submitted before the Commission by 30th September 2015.</p>

Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not submitted any compliance report.	The inaction of the Petitioner in complying with the directive is regretted. It is once again reiterated that the compliance of the above directive should be submitted by 30 th July, 2015.
Present Petition	It is submitted that as per the direction of the Hon'ble Commission the department has already introduced the system of maintaining the details. The details for the FY 2013-14 & FY 2014-15 is attached. The details are provisional as the Accounts are still to be audited.	The Commission has noted that no information has been provided as attachment. The ED A&N is again directed to evolve a software based system of accounting of fuel received at port, dispatched island wise, actual quantity received on the islands and actual quantity consumed island wise for generating electricity; so that actual fuel consumption per unit generation along with the variation could be worked out. Accordingly the Petitioner is directed to furnish such details along with the next filing, failing which the Commission will be constrained to take appropriate action against the Petitioner.

8.1.5. Collection of Arrears: -- Ref Petition 65/2012 -TO June 04, 2012

The Petitioner is directed to analyze the outstanding dues, bad debts etc. & construct a database of such consumers including the particulars like amount, aging schedule and category. The Petitioner should identify those consumers having an outstanding of Rs. 50 thousand and above for more than six months from the due date.		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“Outstanding dues & unrecoverable dues are being analyzed and identification of outstanding of Rs. 50,000/- and above and more than six months from the consumers will be done. Compliance will be submitted to the Hon'ble Commission after completion of the exercise.”	Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30'2013.

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<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>“It is submitted that since the arrears comprise of very old dues and consumers are spread across various islands, tracing of documents/details and analyzing the same for determination of recoverability of the dues will require further time. The Hon’ble Commission may kindly allow the report on the same to be submitted along with the next ARR.”</p>	<p>The submission of the Petitioner is noted. The Petitioner, as per its request, is granted further time to comply with the above directive and is directed to submit the status report and progress in the collection of arrears along with the next ARR & tariff filing.</p>
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16</p>	<p>The Petitioner has not submitted any compliance report.</p>	<p>The Petitioner is once again directed to submit the status report and progress in collection of arrears by 30th September 2015.</p>
<p>Present Petition</p>	<p>It is submitted that details are mostly very old and it has to be done by tracing out old records spread across various divisions & Islands. Further, substantial records were destroyed during Tsunami. However, the department is making all efforts to trace the records as far as available. It is requested that the Hon’ble Commission may kindly give further time to comply with the directive.</p>	<p>The Commission has noted with serious concern the submission of Petitioner. The Commission directs the Petitioner to submit the requisite details as sought by the Commission along with the next tariff filing, failing which the Commission will be constrained to take appropriate action against the Petitioner.</p>

8.1.6. Annual Statement of Accounts: - Ref Petition 65/2012 –TO June 04, 2012

Commission observes that the department of Andaman & Nicobar is not maintaining the separate accounts for the electricity business. The Petitioner is directed to segregate the accounts pertaining to Electricity business as per the Electricity Act 2003 and get them duly audited.

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“ED-A&N has already compiled the Annual Accounts upto FY 2010-11 and same also been Audited. Annual Accounts for FY 2010-11 is attached.”	Action taken is noted.
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	“ The Audited accounts for the FY 2011-12 is attached as Annexure-1”	The submission of the Petitioner is noted. However, the audited accounts for FY 2012-13 are still awaited. The same should be submitted along with the true-up Petition for FY 2012-13. The Commission further directs that the accounts for FY 2012-13 must be prepared on the Commercial Principles for Accounting.
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner submitted only the pro-forma of Accounts for FY 2011-12 and FY 2012-13.	The audited accounts for these years and for FY 2013-14 may be submitted before the next tariff filing.
Present Petition	It is submitted as follows: i. The audited Annual accounts for the FY 2012-13 along with audit certificate issued by AG is attached. ii. The Annual Accounts for the FY 2013-14 has been prepared and submitted to AG for audit. The unaudited	The Commission has noted with serious concern that Petitioner is yet to take any action on preparation of accounts on commercial principles from FY 2012-13 onwards. The Commission directs the Petitioner to prepare accounts on Commercial Principles and get them audited before 30th October 2016 for FY 2012-13, FY 2013-14, FY 2014-15 and FY 2015-16 and file the true-up Petitions for these years along with next Petition failing which, the Commission will be constrained to take appropriate action against the Petitioner.

	accounts for the FY 2013-14 is attached. iii. The Annual Accounts for the FY 2014-15 is under preparation.	
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8.1.7. Accredited Agency for Certifying Renewable Purchase Obligations (RPO)

An agency independent of Electricity Department may be informed to the Commission for its approval which can certify the RPOs in A&N.		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	There is no compliance from the Petitioner.	The Petitioner is directed to comply with the above directive before filing of the next tariff Petition.
Present Petition	The directive shall be complied and reported separately.	The Commission has noted with serious concern the submission of Petitioner. The Commission directs the Petitioner to comply with the directive within 3 months of issuance of this Order, failing which the Commission will be constrained to take appropriate action against the Petitioner.

8.2. Directives continued in this Tariff Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it has been observed that the some of the directives issued in previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission, considering the constraints/submissions of the Petitioner, is of the view that some of the directions needs further action by the Petitioner. Thus, the Commission has decided to continue with the following directives:

8.2.1. Bill Payment: Ref Petition 65/2012 –TO June 04, 2012

<p>The Petitioner is directed to explore options for multiple payment points/gateways for online collection and status of existing system of bill payment be submitted within three months.</p>		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14</p>	<p>“Collection of energy bill through 10 Consumer Service Centre (CSCs) under National e-Governance Programme has already been started in Port Blair Municipal area for the benefit of domestic consumers since December’ 2011. For remaining consumers the same is under process. Online process is not in place and will be implemented in the 2nd phase.”</p>	<p>Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30’ 2013.</p>
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>“The software for web-based collection of Energy bills is under test stage and will be implemented after completion / rectification of all shortcomings of the software. This software will enable the consumers of any area to pay their Electricity bills at any CSC counters or with the collection centres at various section offices.</p> <p>The above Web-based software is compatible for use as On-line collection of energy bill; hence after successful use of this</p>	<p>The efforts of the Petitioner in this regard are appreciated. The status on the 2nd phase of implementation should be submitted before the Commission by 30th September 2014. The online bill payment facility is likely to result into increased collection of revenue receipts by the utility; progress on the same should be submitted along with the status report on implementation.</p>

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

	software for a year, on-line collection of energy bill will be started in the 2nd phase.”	
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not submitted any compliance report.	The inaction of the Petitioner in this regard is regretted. The progress report on the 2nd phase of implementation should be submitted before September 2015.
Present Petition	The Web based billing/payment software has been developed and currently the same is under testing and implementation. However, due to internet connectivity issues the full-fledged implementation same is getting delayed.	The Commission has noted the submission of the Petitioner. The Commission acknowledges that there are issues in internet connectivity across the islands. The Commission, however, directs the Petitioner to still undertake necessary measures for implementation across all the key locations and submit the compliance report of same by 30 th September 2016.

8.2.2. Energy Audit: - Ref Petition 65/2012 –TO June 04, 2012

<p>The Petitioner is directed to get an Energy Audit conducted to assess actual technical and commercial losses. The Energy audit of generating stations is also required for an actual assessment of losses. Based on the studies, ED A&N shall propose reduction of losses in subsequent years along with the investment required for reduction of such losses and augmentation of transmission and distribution system. Effective technical and administrative measures shall be taken to reduce the commercial losses. The action plan for energy audit and loss reduction measures shall be furnished to the Commission by 30th October 2012.</p>		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“The appointment of agency is under process. Energy audit is required to be done by visiting various Islands and will take time to get completed. The Hon’ble Commission may kindly allow submitting the report along with next ARR.”	Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30’ 2013.

<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>“The A&N Administration has conveyed approval for appointing M/s Petroleum Conservation Research Association (PCRA) on nomination basis. The signing of MOU between A&N Administration and M/s PCRA is under process. The report will be submitted soon after its receipt from PCRA.”</p>	<p>The Commission understands that the process of energy audit would take time as the data/information is to be integrated across various islands. However, the same should be complied with and status report on the progress of implementation of the above directive should be submitted before the Commission by September 30’ 2014.</p>
<p>Reference Order/ Petitions</p>	<p>Petitioner Submission</p>	<p>Commission Analysis</p>
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16</p>	<p>The Petitioner has not submitted any compliance.</p>	<p>The Commission observes that in the road map for T&D losses given by the Petitioner last year, as mentioned in table above, the Petitioner had themselves committed for targeting the T&D losses in FY 2014-15 and FY 2015-16 at 17% and 16% respectively, but in the instant Petition, they have projected T&D loss of 17% in both the years.</p> <p>Further, in the present tariff Petition submitted by them, the actual T&D losses claimed during FY 2013-14 are 19.39%, against the T&D loss of 18.03% approved in the review of FY 2013-14 in Tariff Order dated 11th April, 2014. It is also observed that for the current year FY 2014-15 and ensuing year FY 2015-16 they have projected T&D losses of 17% for both</p>

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		<p>the years. This projection seems to erratic as in FY 2013-14 from 18.03%, utility jumped to 19.39% and then to 17%.</p> <p>The Commission keeping in view the philosophy of continued loss reduction approves 17% for FY 2014-15 and FY 2015-16 as elaborated in Para 6.4 & 7.4 respectively of this Tariff Order.</p>
Present Petition	<p>The offer earlier submitted by M/s Petroleum Conservation Research Association (PCRA) was limited to South Andaman Island. Hence, fresh offer is being invited for Energy Audit across all the islands.</p>	<p>The Commission notes the submission of the Petitioner and directs the Petitioner to submit the status report by 30th September 2016 and complete the energy auditing process at the earliest.</p>

8.2.3. Management Information System: - Ref Petition 65/2012 -TO June 04, 2012

<p>Commission observes that the Petitioner is not maintaining the sales and revenue data in the regulatory formats specified in the JERC tariff Regulations. The slab wise and category wise data is required to be maintained monthly for proper analysis of sales and revenue.</p> <p>The Petitioner is directed to take steps to build credible & accurate and verifiable data base and management information system (MIS) to meet the requirements for filing ARR & Tariff Petition as per regulatory requirement of the Commission.</p> <p>The ED-A&N should conduct a study for a computerization of data and shall give a proposal for the same along with an action plan with target dates.</p>		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	<p>“Study for computerization is being done. Action plan and target will be submitted to the Hon’ble Commission will be submitted after completion of the study.”</p>	<p>Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30’2013.</p>
Compliance/Action Taken mentioned in	<p>“The new Web-based billing software will take care of</p>	<p>The submission of the Petitioner is noted. The status</p>

ARR and tariff Petition for FY 2014-15	maintaining the sales and revenue data in the regulatory formats specified in the JERC Tariff Regulations. Hence, the same will be complied with the implementation of the software "	report on the progress of implementation of the above mentioned software should be submitted before the Commission by 30 th September 2014.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	There is no compliance from the Petitioner.	The Petitioner is once again directed to submit the status report on the progress of implementation of the above mentioned software before the Commission by 30 th September 2015.
Present Petition	The Web based billing software has been developed and currently the same is under testing and implementation. However, due to internet connectivity issues the full-fledged implementation same is getting delayed.	The Commission has noted the submission of the Petitioner. The Commission acknowledges that there are issues in internet connectivity across the islands. The Commission, however, directs the Petitioner to still operationalize the system and submit the compliance report of same by 30 th September 2016.

8.2.4. RPO – Reviving the operations of existing solar plants and Annual maintenance of the same.

Keeping in view of lower cost of solar generation as compared to Diesel based generation, as mentioned in this and earlier Tariff Orders, in regard to solar plants at Neil Island - 50 KWp , Havelock - 50 KWp, wherein it is stated that;

"In the light of 100 KWp solar projects installed on the Andaman & Nicobar Islands, the Petitioner is directed to revive the operations of the said plants and may go in for Annual Maintenance Contract of these small solar power plants with the organization responsible for carrying out the maintenance activity of proposed 5 MW solar power plant; so that the AMC contractor shall not be hesitant to come from mainland for such a small contract and as such the consumers of A&N shall be able to get uninterrupted green power and the burden of the Administration of A&N due to high cost of diesel power is reduced. Besides it also helps A&N to meet RPOs.

Additionally, four to six engineers/technicians of ED A&N who shall be actually deployed for the job of maintenance of solar power plants; should be initially trained at new site of 5 MW Solar Power Plant for upkeep and maintenance of 2 x 50 kWp plants, so as to equip the officials of

department with the available technologies and spares for such purpose. This may reduce the frequent dependency on the mainland for the purpose of maintenance.”

The Petitioner is directed to comply with the above and report on this may be submitted to the Commission by 30th September, 2015.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	It is submitted that the department has complied with the requirement of RPO as per the regulations. Further, in view of the high cost HSD, department is in the process of increasing the share of renewable sources of energy generation. Accordingly, details of new solar power projects under implantation has been provided in the Business Plan. The economic & technical viability of reviving the existing power plants is being looked into and report on the same shall be submitted separately.	The Commission has noted the submission of the Petitioner and directs the Petitioner to submit the quarterly status reports of actions taken in this matter.

8.2.5. Demand Side Management and Energy Conservation: - Ref Petition 65/2012 -TO June 04, 2012

The Petitioner should focus on Demand Side Management and Energy Conservation particularly in context of Peak load. ED- A&N is directed to conduct a detailed study on demand side management and energy conservation for efficient use of electricity by various means. An action plan for the same shall be submitted by ED- A&N to the Commission by 30th October 2012.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“The ED, A&N has already taken initiatives in this regard. Energy Conservation schemes are being implemented. Action plan for the same will be	Action taken is noted. The action plan to be submitted by 31.12.2012 is still awaited. The Petitioner is directed to submit the status report and progress report on quarterly basis in this regard.

	submitted by 31.12.2012. It is submitted that Hon'ble Commission may kindly allow the same."	
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	<p>"Demand Side Management is presently not followed due to the fact there is a substantial gap between the average cost of power generation and revenue realization. Moreover, majority of consumer are domestic consumer's i.e. 83% and industrial consumers are hardly 0.5%. Energy Conservation Schemes are being implemented and consumers are sensitized throughout the year to use energy efficient electrical gadgets, use of solar water heaters in all the Hotels are mandatory in these islands.</p> <p>It is submitted that Hon'ble Commission may kindly allow the same."</p>	The submission of the Petitioner is noted. The status report on the various energy conservation schemes along with supporting details should be submitted before the Commission by 30 th September 2014.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not complied with the directive.	The Petitioner is once again directed to submit a status report on the various energy conservation schemes along with supporting details by 30 th September 2015.
Present Petition	Under the Demand Side Management, there is a proposal of distribution of four lakh LED bulbs of 7 Watt each at a cost of Rs. 10 Each to around one lakh domestic consumers. The	The Commission has noted the submission of the Petitioner and directs it to file the Petition for approval of the Commission at the earliest and not later than 31 st July 2016.

	<p>draft Petition to file with Hon'ble JERC is under vetting and approval of Administration. However, the expenditure sanction for Rs. 20,000/- being the fees for filing the Petition under DSM has already been sanctioned.</p>	
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8.2.6. Strengthening of the Consumer Grievance Redressal System

The Commission directs the Petitioner to find a way to dispose all pending application as per provision under Section 43 of the Electricity Act, and relevant JERC Regulations, other than the cases pending due to lack of documentary evidence of legal heirs after the death of original owner of the premises.

The Commission also directs to follow the Standard of Performance notified by the Commission strictly and the status report are submitted for all the new/shifting connection application's pending with the reason for their pendency by more than 45 days.

The Petitioner is directed to promote and give publicity to the functioning of the Consumer Grievance Redressal Forum, so that each consumer could approach to CGRF, for redressal of their grievances regarding electricity unresolved complaints/concerns.

Commission directs the Petitioner to publicize the benefit to consumers, highlighting the steps and necessary documents required & to initiate the action on the following:

- Complaint against fast meters/defective meters
- Application for Shifting of electricity connection
- Application for New Connection
- Complaint regarding no-supply.
- Any other complaints

Commission further directs to prepare monthly/ quarterly schedule for visit to different Islands by officers i.e. S.D.O., Ex. En., and SE A&N to hear and settle the public grievances and complaints of Electricity at spot so that no consumer is forced to visit to the Port Blair.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	"The directive of the Hon'ble Commission in this regard is being complied. Schedule for visit to different Islands by officers of the ED-A&N to hear	Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30' 2013.

	and settle the public grievances and complaints of electricity has been made & the same is being followed.”	
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	“The directive of the Hon’ble Commission is already being complied with by scheduled visit of officers of the department to different islands to settle the public grievance and complaints. The officials of CGRF are also making visits to different islands in coordination with the officers of the department to sensitize the public regarding their rights as a consumer of Electricity Department.”	The submission of the Petitioner is noted. The status report with complete details such as the no. of visits by officials, settlement of grievances and issues unsettled/outstanding should be submitted before the Commission by every quarter henceforth.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not complied with the directive.	The quarterly reports, as directed should be submitted regularly.
Present Petition	It is submitted that the department has taken necessary steps to address the issues of the public and to settle the public grievances and complaints of the consumers at the spot so that no consumer is forced to visit the main office of the ED – A&N. It is also submitted that quarterly reports as directed shall be submitted regularly from current quarter onwards.	The Commission has noted the submission of Petitioner and directs to submit the quarterly action taken reports to the Commission.

8.2.7. Safety Measures undertaken

The ED – A&N is directed to submit a report on the safety measures initiated by it to prevent fatal accidents for the departmental persons and general public, by 31st July, 2015. The Petitioner is also directed to submit quarterly reports on fatal accidents which have occurred in the U.T and steps taken to prevent recurrence of the same. The first quarterly report should be submitted by 31st July, 2015.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	<p>In order to ensure safety of its manpower, the safety measures prescribed under Indian Electricity rules, Safety, Electricity Supply Regulations 2010 notified by CEA and Joint Electricity Regulatory Commission (Distribution Code Regulation 2010) needs to be adhered to by the utility. Accordingly, to comply with the safety measures directed by the commission the department intends to examine all the Rules and Regulations in the force and take required in the direction. The ED, A&N, has planned to analyze existing safety standards, tool kits and practices being followed by the department. In coherence with the exercise and various safety regulation in place the Department shall come out with suitable safety tool kits/ equipment required to carry out operation and maintenance of distribution network.</p>	<p>The Commission has noted the submission of Petitioner and directs it to submit the quarterly status reports to the Commission.</p>

8.2.8. Metering of consumer installations / Replacement of Non-Functional or Defective Meters: - Ref Petition 65/2012 –TO June 04, 2012

Under Section 55 (1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulation to be made in this behalf by the authority. Accordingly, metering is required to be done in line with CEA (installation and operation of meters) Regulations 2006 to all consumers. ED-A&N is directed to submit an action plan regarding installation/replacement of meters by 30th October 2012.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis												
<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14</p>	<p>“100% metering has been done. Action plan is furnished below for replacement of defective meters. It is submitted that all the non-functional/ defective meters in operational area of the department shall be replaced within the schedule as provided below.”</p> <table border="1" data-bbox="505 1077 1011 1293"> <thead> <tr> <th>S. No.</th> <th>Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>31/03/2013</td> <td>10</td> </tr> <tr> <td>2.</td> <td>31/03/2014</td> <td>50</td> </tr> <tr> <td>3.</td> <td>31/03/2015</td> <td>40</td> </tr> </tbody> </table>	S. No.	Date	%	1.	31/03/2013	10	2.	31/03/2014	50	3.	31/03/2015	40	<p>Action taken is noted and the Petitioner is directed to expedite the work for completing the same on earlier schedules than shown above and to submit the status report and progress in this regard by September 30' 2013.</p>
S. No.	Date	%												
1.	31/03/2013	10												
2.	31/03/2014	50												
3.	31/03/2015	40												

<p>Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15</p>	<p>Metering by Electricity Department in A&N islands in line to the CEA Regulation, 2006 (Installation and Operation of Meters) has been implemented and 31592 out of 1,13,688 Meters are Mechanical Meters which are proposed to be replaced by Electronic Meters in a phased manner. The Current Status of the Consumer Metering is tabulated below:-</p> <table border="1" data-bbox="505 583 1062 1877"> <thead> <tr> <th>Sl. No.</th> <th>Description</th> <th>Status as on 30.9.2013</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Name of Licensee</td> <td>A&N Electricity Department</td> </tr> <tr> <td>2.</td> <td>No. of consumers</td> <td>113688</td> </tr> <tr> <td></td> <td>(i) Without meter</td> <td>Nil</td> </tr> <tr> <td></td> <td>(ii) With meter</td> <td>113688</td> </tr> <tr> <td>3.</td> <td>No. of consumers having</td> <td></td> </tr> <tr> <td></td> <td>(i) Mechanical meter</td> <td>31592</td> </tr> <tr> <td></td> <td>(ii) Electronic meter</td> <td>82096</td> </tr> <tr> <td>4.</td> <td>Condition of Mechanical meters</td> <td></td> </tr> <tr> <td></td> <td>(i) Working</td> <td>28630</td> </tr> <tr> <td></td> <td>(ii) Non-working</td> <td>2962</td> </tr> <tr> <td>5.</td> <td>Condition of Electronic meter</td> <td></td> </tr> <tr> <td></td> <td>(i) Working</td> <td>77323</td> </tr> </tbody> </table>	Sl. No.	Description	Status as on 30.9.2013	1.	Name of Licensee	A&N Electricity Department	2.	No. of consumers	113688		(i) Without meter	Nil		(ii) With meter	113688	3.	No. of consumers having			(i) Mechanical meter	31592		(ii) Electronic meter	82096	4.	Condition of Mechanical meters			(i) Working	28630		(ii) Non-working	2962	5.	Condition of Electronic meter			(i) Working	77323	<p>The submission of the Petitioner is noted. The Commission appreciates the efforts of the Petitioner in this regard; particularly with regard to the metering of all the consumers. The status report and progress in this regard should be submitted before the Commission by 30th September 2014.</p>
Sl. No.	Description	Status as on 30.9.2013																																							
1.	Name of Licensee	A&N Electricity Department																																							
2.	No. of consumers	113688																																							
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	(ii) Non-working	2962																																							
5.	Condition of Electronic meter																																								
	(i) Working	77323																																							

	(ii) Non-working	4773	
6.	Total meters required to be installed / replaced		
	(i) Non installed	Nil	
	(ii) Non-working: Mechanical	2962	
	Electronic	4773	
	Working: Mechanical	28630	
	Total = 6 (i+ii+iii):	36365	
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not submitted any compliance status report so far.		The status report and progress in respect of metering of consumer installations and replacement of non-functional / defective meters should be submitted by 30th September 2015.
Present Petition	It is submitted that there were 6831 defective / non-functional meters and out of which 5400 meters have already been replaced. Further, out of 28,271 working mechanical meters 2120 meters have been replaced. The department has placed two supply orders for 9000 and 8000 Energy meters vide order dated 10.12.2015 & 18.02.2016. After the receipt of these 17,000 meters the replacement of all the non-functional / defective / working mechanical meters will be done. The balance a non-functional / defective / working mechanical meters will be done in a phased way and will be		The Commission has noted the submission of the Petitioner and directs to submit the status report by 30 th September 2016

	completed by July, 2016. The copies of supply order is attached as Exhibit-2 .	
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8.2.9. Unbundling and Corporatization of Electricity Department as per Electricity Act 2003

Reforms in the Energy sector are absolutely necessary to overhaul the energy sector to make it more vibrant and commercially, viable. As part of the reforms envisaged, the government will have to consider seriously, the huge monopolistic role of government departments in the generation, transmission and distribution of electricity in the state. The Electricity Department, A&N, in consultation with the Government of A&N, should initiate action for unbundling of the Electricity Department into separate Generation, Transmission and Distribution Departments and Corporatizing the same. The action plan for the same may be submitted to the Commission by 31st December, 2015.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	It is submitted that the decision with regard to the unbundling is to be taken at the level of GOI and there has been no such development in this regard till date. However, the A&N Department shall submit the status report to the Hon'ble Commission at earliest.	The Commission has noted the submission of the Petitioner and directs the Petitioner to actively pursue same with the Government of India.

8.3. Directives dropped in this Tariff Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, the Commission is of the view that since some of the directions have been complied with satisfactorily, these directions are no longer required and are required to be dropped or replaced with new directions. No further compliance/status is required to be submitted by the Petitioner for the following directives:

8.3.1. Capital expenditure: - Ref Petition 65/2012 -TO June 04, 2012

The Petitioner is directed to submit the detailed statement of capital expenditure incurred and capitalization for every quarter, within 15 days in the subsequent quarter.		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“Statement enclosed as Annexure -II.”	The submission of the Petitioner is noted. As can be observed the submitted statement does not show the capitalization achieved. The timeline stipulated for the submission as per the direction should be adhered to and quarterly submissions should be made for the remaining quarters of FY 2012-13 and going forward for the coming years.
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	“Details of Capital expenditure are submitted in the Format -5 of this Petition”	The submission of the Petitioner is noted. The Petitioner is directed to submit a detailed capital investment plan highlighting the cost-benefit analysis of each scheme separately and submit the same as per the regulations. Separate approval of the capital investment plan should be obtained from the Commission
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not submitted any compliance report.	The inaction of the Petitioner is regretted. A detailed capital investment plan along with cost benefit analysis may be submitted before the next tariff filing.
Present Petition	It is submitted that the directive stands complied as the details of capital investment plan is submitted in the Business Plan and the Hon’ble Commission has also approved the same.	The Commission has noted the submission of the Petitioner and drops this directive.

8.3.2. Cost of Power Generation: - Ref Petition 65/2012 -TO June 04, 2012

“Commission observes that the department of Andaman & Nicobar is not maintaining the separate accounts for their Diesel generating sets, Hydro and Solar plants.

Commission directs the Petitioner to provide separate details of cost of Power Purchase and final arrived tariff from the following stations/sets:

- i.* Power Purchase Cost and Tariff from each Diesel generating set.
- ii.* Power Purchase Cost and Tariff from Hydro – Generating Station.
- iii.* Power Purchase Cost and Tariff from Solar Power Plant.
- iv.* Power Purchase Cost and Tariff from other Renewable Power Plants.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	“Detailed statement of cost of power purchase & generation is attached –”	The Petitioner noted the submission of the Petitioner
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	“ the directive stands complied”	The submission of the Petitioner is noted and the Commission drops the directive in the current Order.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	Complied	Complied
Present Petition	Complied	The submission of the Petitioner is noted and the Commission drops the directive in the current Order.

8.3.3. 100% Metering

Under Section 55(1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulations to be made in this behalf by the authority. Accordingly, metering is required to be

done in line with CEA (Installation and Operation of Meters) Regulations 2006 for all consumers. Action plan to install meters for all the unmetered connections may be given by 30th June, 2015.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	It is submitted that all the existing connections are metered no new connections are being given without meters.	The submission of the Petitioner is noted and the Commission drops the directive in the current Order.

8.3.4. Business Plan for MYT Control Period

As elaborated in para 1.8 of this Tariff Order, the details in the Business Plan submitted by the utility are insufficient. The supporting data such as, Scheme-wise cost benefit analysis, financing plan, loss reduction trajectory have not been adequately submitted. In view of the same the Commission is constrained to defer the implementation of Multi-Year Tariff and concomitant Business Plan. The Petitioner is therefore directed to submit the revised Business Plan for the period FY 2016-17 to FY 2018-19, along with requisite detail as provided in JERC (Multi Year Tariff) Regulations, 2014, latest by 31st July, 2015.

No further extension will be given as the MYT Petition would be required to be prepared only after approval of the Business plan. The MYT Petition submission deadline remains 30th November.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	It is submitted that the Hon'ble Commission has already issued Order on the Business Plan submitted by the ED, A&N.	The submission of the Petitioner is noted and the Commission drops the directive in the current Order.

8.3.5. Exploration of Alternative sources of Electrical Energy: - Ref Petition 65/2012 -TO June 04, 2012

Commission observed that there is huge dependency on diesel for generating electricity, which not only increased the average cost of supply but also puts a burden on the utility's financial health. Commission has noticed that the Petitioner has taken few initiatives in this regard but the firm execution is required so as to speed up the process of their construction and achievement of commercial operation date in the given timelines. Therefore, it is inevitable for this distribution licensee to explore alternative sources of Power, and also consumer's contribution in this regard

is required in terms of installation of roof top solar, wind or hybrid equipment's to reduce their load on the existing power stations of the utility.

The Petitioner is directed to submit a quarterly progress report for the initiatives taken in this regard so as to speed up the process of its execution.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2013-14	"Reports of initiatives taken for renewable energy sources are attached"	Action taken is noted and the Petitioner is directed to submit the status report and progress in this regard by September 30' 2013.
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2014-15	<p>" Memorandum of Understanding has been signed by the Electricity Department, A&N Administration with the following organizations to phase out the existing diesel based power plants:-</p> <p><i>i.</i> Petronet LNG Ltd.(PLL) to carry out feasibility study for establishment LNG based power plant in Port Blair, South Andaman as pilot project and;</p> <p><i>ii.</i> The Energy Research Institute (TERI) to study the feasibility of Renewable Energy based Power Projects by assessment of Renewable Energy Sources (Wind, Solar and Biomass) in 16 islands of A&N Islands.</p> <p>Moreover, matter is also being taken with National Institute of Ocean Technology (NIOT) for harnessing of Tidal Energy for power generation in these islands.</p>	The efforts of the Petitioner in this regard are appreciated. The Solar Plants at Neil Island and Havelock Island should also be made operational at the earliest. The status report on the above should be submitted before the Commission by 30th September 2014.

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	It is submitted that Hon'ble Commission may kindly allow the same."	
Compliance/Action Taken mentioned in ARR and tariff Petition for FY 2015-16	The Petitioner has not submitted the status report.	The status report on the above shall be submitted by 30th September 2015.
Present Petition	It is submitted that the details of initiatives taken by the department towards exploration of alternative sources of electricity stands submitted in the Business Plan.	The Commission has noted the submission of Petitioner. Keeping in view the plans of MNRE for conversion of Andaman and Nicobar Islands into green islands and efforts of utility for LNG based stations, the Commission drops this directive.

Annexure 1: Public Notices published by the Petitioner

Annexure 2: Public Notices published by the Commission for intimation of Public Hearing

Annexure 3: List of Objectors/Stakeholders

The following is the list of the stakeholders who have submitted objections/ suggestions:

Sl. No.	Name of Stakeholder	Representation (in Writing)	Representation (In Person)
1.	Mr. Krishnan, State President (IHRC)		√

Annexure 4: Electrified Island/Region-wise Details

Table 1: Historical Electrified Island/Region Wise Sales (in MU)

Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Headquarters				
Domestic	64.69	69.41	73.74	78.97
N-Domestic	39.79	40.38	41.22	41.78
Industrial	8.51	9.68	10.07	11.12
Public Lighting	6.73	6.20	6.60	6.42
Agriculture	0.72	0.75	0.72	0.71
Bulk Supply	28.96	27.92	28.25	28.75
Sub Total	149.40	154.34	160.59	167.76
Neil Islands				
Domestic	0.52	0.57	0.61	0.72
N-Domestic	0.19	0.21	0.36	0.44
Industrial	0.01	0.01	0.02	0.04
Public Lighting	0.06	0.05	0.04	0.05
Agriculture	0.04	0.04	0.04	0.05
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.81	0.87	1.08	1.31
Havelock				
Domestic	1.22	1.40	1.48	1.68
N-Domestic	1.88	2.13	2.41	2.70
Industrial	0.11	0.14	0.23	0.54
Public Lighting	0.07	0.04	0.04	0.04
Agriculture	0.01	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	3.28	3.72	4.17	4.96
HutBay, Strait Island and Dugong Creek				
Domestic	3.92	4.19	4.44	4.72
N-Domestic	1.55	1.57	1.56	1.57
Industrial	0.70	0.65	0.73	0.68
Public Lighting	0.45	0.51	0.49	0.45
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.03	0.03	0.03	0.04
Sub Total	6.64	6.95	7.25	7.45
Rangat				
Domestic	10.03	10.26	11.38	12.38
N-Domestic	4.28	4.29	4.60	4.70
Industrial	1.14	0.25	0.35	0.39
Public Lighting	0.70	0.70	0.78	0.79

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Agriculture	0.02	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	16.17	15.50	17.12	18.27
Hanspuri				
Domestic	0.01	0.01	0.01	0.01
N-Domestic	0.00	0.00	0.01	0.01
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.00	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.01	0.01	0.02	0.02
Long Island				
Domestic	0.19	0.18	0.21	0.23
N-Domestic	0.13	0.13	0.14	0.13
Industrial	0.00	0.01	0.00	0.00
Public Lighting	0.04	0.03	0.05	0.05
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.37	0.35	0.39	0.41
Ganesh Nagar				
Domestic		0.02	0.05	0.04
N-Domestic		0.00	0.00	0.00
Industrial		0.00	0.00	0.00
Public Lighting		0.00	0.00	0.00
Agriculture		0.00	0.00	0.00
Bulk Supply		0.00	0.00	0.00
Sub Total	0.00	0.02	0.05	0.04
Gandhi Nagar				
Domestic		0.01	0.03	0.04
N-Domestic		0.00	0.00	0.00
Industrial		0.00	0.00	0.00
Public Lighting		0.00	0.00	0.00
Agriculture		0.00	0.00	0.00
Bulk Supply		0.00	0.00	0.00
Sub Total	0.00	0.01	0.03	0.04
Shanti Nagar				
Domestic		0.02	0.03	0.03
N-Domestic		0.00	0.00	0.00
Industrial		0.00	0.00	0.00
Public Lighting		0.00	0.00	0.00
Agriculture		0.00	0.00	0.00

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Bulk Supply		0.00	0.00	0.00
Sub Total	0.00	0.02	0.03	0.03
Smith Island				
Domestic	0.03	0.03	0.04	0.03
N-Domestic	0.01	0.00	0.01	0.01
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.00	0.01	0.02	0.02
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply		0.00	0.00	0.00
Sub Total	0.04	0.05	0.08	0.06
Diglipur				
Domestic	5.20	6.40	6.76	7.40
N-Domestic	3.13	2.57	2.49	2.76
Industrial	0.16	0.19	0.22	0.26
Public Lighting	0.55	0.52	0.54	0.51
Agriculture	0.11	0.11	0.09	0.08
Bulk Supply	0.05	0.13	0.18	0.21
Sub Total	9.19	9.92	10.28	11.23
Car Nicobar				
Domestic	4.46	4.98	4.55	5.16
N-Domestic	1.51	1.82	2.09	3.61
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.13	0.18	0.16	0.07
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply		0.00	0.38	0.00
Sub Total	6.10	6.98	7.18	8.85
Katchal				
Domestic	0.53	0.58	0.56	0.49
N-Domestic	0.20	0.25	0.28	0.30
Industrial	0.05	0.04	0.02	0.02
Public Lighting	0.05	0.07	0.07	0.07
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.84	0.93	0.93	0.87
Kamorta				
Domestic	0.60	0.65	0.68	0.73
N-Domestic	0.45	0.83	0.49	0.52
Industrial	0.02	0.02	0.03	0.06
Public Lighting	0.08	0.10	0.14	0.26
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.28	0.42	0.00	0.43

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Sub Total	1.42	2.02	1.34	2.00
Chowra				
Domestic	0.11	0.11	0.15	0.19
N-Domestic	0.03	0.03	0.03	0.02
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.04	0.04	0.02	0.05
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.18	0.18	0.19	0.26
Teressa				
Domestic	0.35	0.42	0.44	0.49
N-Domestic	0.13	0.14	0.12	1.07
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.08	0.05	0.04	0.03
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.56	0.62	0.60	1.58
Champion				
Domestic	0.13	0.14	0.18	0.17
N-Domestic	0.01	0.01	0.01	0.03
Industrial	0.00	0.00	0.05	0.00
Public Lighting	0.04	0.04	0.05	0.02
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.18	0.19	0.29	0.22
Campbell Bay				
Domestic	2.00	2.04	2.10	2.12
N-Domestic	0.68	0.79	1.04	0.99
Industrial	0.19	0.19	0.26	0.27
Public Lighting	0.22	0.19	0.21	0.22
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.26	0.47	0.48	0.50
Sub Total	3.36	3.68	4.09	4.08
Total Andaman and Nicobar Islands				
Domestic	93.98	101.43	107.46	115.59
N-Domestic	53.96	55.14	56.85	60.64
Industrial	10.89	11.17	11.97	13.38
Public Lighting	9.24	8.72	9.24	9.05
Temp Connection	0.00	0.00	0.00	0.00
Agriculture	0.90	0.91	0.87	0.87
Bulk Supply	29.57	28.98	29.32	29.93

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Categories	FY 12	FY 13	FY 14	FY 15
	Actual Sales (in MU)			
Grand Total	198.54	206.34	215.71	229.46

Table 2: Category-wise growth rate for Energy Sales as considered by the Commission (in %age)

Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Headquarters				
Domestic	6.88%	6.67%	6.77%	6.88%
N-Domestic	1.64%	1.72%	4.83%	1.64%
Industrial	9.34%	7.22%	9.45%	9.34%
Public Lighting	-1.56%	1.76%	1.63%	1.76%
Agriculture	-0.37%	-2.15%	1.90%	0.00%
Bulk Supply	-0.24%	1.48%	1.42%	1.48%
Neil Islands				
Domestic	11.89%	12.97%	6.77%	6.77%
N-Domestic	31.97%	45.09%	4.83%	4.83%
Industrial	73.45%	108.90%	9.45%	9.45%
Public Lighting	-1.88%	5.64%	1.63%	1.63%
Agriculture	11.67%	11.39%	1.90%	1.90%
Bulk Supply	0.00%	0.00%	1.42%	1.42%
Havelock				
Domestic	11.15%	9.27%	6.77%	9.27%
N-Domestic	12.85%	12.59%	4.83%	4.83%
Industrial	70.81%	98.89%	9.45%	9.45%
Public Lighting	-16.83%	-1.56%	1.63%	0.00%
Agriculture	-10.08%	-22.89%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
HutBay, Strait Island and Dugong Creek				
Domestic	6.41%	6.09%	6.77%	6.41%
N-Domestic	0.40%	-0.10%	4.83%	0.40%
Industrial	-0.92%	2.33%	9.45%	2.33%
Public Lighting	-0.13%	-5.65%	1.63%	0.00%
Agriculture	32.69%	16.63%	1.90%	5.00%
Bulk Supply	8.83%	5.58%	1.42%	8.83%
Rangat				
Domestic	7.25%	9.84%	6.77%	7.25%
N-Domestic	3.20%	4.67%	4.83%	3.20%
Industrial	-30.19%	25.05%	9.45%	9.45%
Public Lighting	4.12%	6.64%	1.63%	4.12%
Agriculture	-28.41%	-5.12%	1.90%	0.00%

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Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Hanspuri				
Domestic	9.09%	7.15%	6.77%	7.15%
N-Domestic	18.29%	30.98%	4.83%	4.83%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	0.00%	0.00%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Long Island				
Domestic	5.61%	11.01%	6.77%	5.61%
N-Domestic	0.07%	1.05%	4.83%	1.05%
Industrial	0.00%	-5.72%	9.45%	0.00%
Public Lighting	5.40%	21.21%	1.63%	5.40%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Ganesh Nagar				
Domestic	0.00%	39.96%	6.77%	6.77%
N-Domestic	0.00%	0.00%	4.83%	0.00%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	0.00%	0.00%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Gandhi Nagar				
Domestic	0.00%	91.51%	6.77%	6.77%
N-Domestic	0.00%	0.00%	4.83%	0.00%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	0.00%	0.00%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Shanti Nagar				
Domestic	0.00%	33.42%	6.77%	6.77%
N-Domestic	0.00%	0.00%	4.83%	0.00%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	0.00%	0.00%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Smith Island				
Domestic	10.59%	1.28%	6.77%	10.59%
N-Domestic	3.38%	0.00%	4.83%	3.38%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	64.61%	17.40%	1.63%	5.00%

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Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Diglipur				
Domestic	12.52%	7.58%	6.77%	7.58%
N-Domestic	-4.05%	3.69%	4.83%	3.69%
Industrial	18.09%	16.66%	9.45%	9.45%
Public Lighting	-2.32%	-1.17%	1.63%	0.00%
Agriculture	-9.39%	-11.10%	1.90%	0.00%
Bulk Supply	65.59%	26.80%	1.42%	5.00%
Car Nicobar				
Domestic	5.03%	1.79%	6.77%	5.03%
N-Domestic	33.73%	40.92%	4.83%	4.83%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	-17.65%	-35.10%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Katchal				
Domestic	-2.91%	-8.28%	6.77%	6.77%
N-Domestic	14.09%	10.98%	4.83%	4.83%
Industrial	-32.33%	-34.80%	9.45%	0.00%
Public Lighting	8.07%	0.81%	1.63%	0.81%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Kamorta				
Domestic	6.62%	6.20%	6.77%	6.62%
N-Domestic	5.28%	-20.62%	4.83%	5.28%
Industrial	50.29%	59.65%	9.45%	9.45%
Public Lighting	51.54%	65.31%	1.63%	1.63%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	15.28%	1.41%	1.42%	1.41%
Chowra				
Domestic	20.22%	29.26%	6.77%	6.77%
N-Domestic	-7.23%	-6.44%	4.83%	0.00%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	8.87%	16.17%	1.63%	1.63%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Teressa				
Domestic	11.12%	6.93%	6.77%	11.12%
N-Domestic	102.33%	178.91%	4.83%	4.83%
Industrial	0.00%	0.00%	9.45%	0.00%

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Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Public Lighting	-28.67%	-29.36%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Champion				
Domestic	10.24%	10.93%	6.77%	10.24%
N-Domestic	44.37%	67.75%	4.83%	5.00%
Industrial	0.00%	0.00%	9.45%	0.00%
Public Lighting	-23.11%	-33.48%	1.63%	1.63%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	0.00%	0.00%	1.42%	0.00%
Campbell Bay				
Domestic	1.85%	1.71%	6.77%	1.85%
N-Domestic	13.13%	11.85%	4.83%	13.13%
Industrial	11.78%	18.40%	9.45%	11.78%
Public Lighting	-0.88%	7.71%	1.63%	0.00%
Agriculture	0.00%	0.00%	1.90%	0.00%
Bulk Supply	24.33%	3.26%	1.42%	3.26%

* *Approved on consolidated basis in Business Plan Order by the Commission*

Table 3: Island wise and Category-wise Energy Sales as approved by the Commission for MYT Control Period (In MU)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	84.40	90.20	96.40	103.03
N-Domestic	42.47	43.17	43.87	44.59
Industrial	12.16	13.30	14.54	15.90
Public Lighting	6.53	6.65	6.77	6.88
Agriculture	0.71	0.71	0.71	0.71
Bulk Supply	29.18	29.61	30.04	30.49
Sub Total	175.45	183.64	192.34	201.61
Neil Islands				
Domestic	0.77	0.82	0.88	0.94
N-Domestic	0.46	0.48	0.50	0.53
Industrial	0.05	0.05	0.06	0.06
Public Lighting	0.06	0.06	0.06	0.06
Agriculture	0.05	0.05	0.05	0.05
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	1.38	1.46	1.55	1.64
Havelock				
Domestic	1.83	2.00	2.19	2.39
N-Domestic	2.83	2.97	3.11	3.26
Industrial	0.59	0.65	0.71	0.78
Public Lighting	0.04	0.04	0.04	0.04
Agriculture	0.01	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	5.30	5.66	6.05	6.47
HutBay, Strait Island and Dugong Creek				
Domestic	5.02	5.34	5.69	6.05
N-Domestic	1.57	1.58	1.59	1.59
Industrial	0.69	0.71	0.73	0.74
Public Lighting	0.45	0.45	0.45	0.45
Agriculture	0.01	0.01	0.01	0.01
Bulk Supply	0.04	0.04	0.05	0.05
Sub Total	7.78	8.13	8.50	8.89
Rangat				
Domestic	13.27	14.24	15.27	16.37
N-Domestic	4.85	5.01	5.17	5.33
Industrial	0.42	0.46	0.51	0.56
Public Lighting	0.83	0.86	0.90	0.93
Agriculture	0.01	0.01	0.01	0.01
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	19.38	20.57	21.84	23.20
Hanspuri				
Domestic	0.01	0.01	0.02	0.02
N-Domestic	0.01	0.01	0.01	0.01
Industrial	0.00	0.00	0.00	0.00

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Public Lighting	0.00	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.02	0.02	0.02	0.02
Long Island				
Domestic	0.24	0.25	0.27	0.28
N-Domestic	0.13	0.13	0.13	0.13
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.05	0.06	0.06	0.06
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.43	0.45	0.47	0.49
Ganesh Nagar				
Domestic	0.04	0.05	0.05	0.05
N-Domestic	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.00	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.04	0.05	0.05	0.05
Gandhi Nagar				
Domestic	0.05	0.05	0.05	0.05
N-Domestic	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.00	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.05	0.05	0.05	0.06
Shanti Nagar				
Domestic	0.03	0.03	0.03	0.03
N-Domestic	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.00	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.03	0.03	0.03	0.04
Smith Island				
Domestic	0.04	0.04	0.05	0.05
N-Domestic	0.01	0.01	0.01	0.01
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.02	0.02	0.02	0.02
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.07	0.07	0.08	0.08
Diglipur				
Domestic	7.97	8.57	9.22	9.92

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
N-Domestic	2.86	2.97	3.08	3.19
Industrial	0.28	0.31	0.34	0.37
Public Lighting	0.51	0.51	0.51	0.51
Agriculture	0.08	0.08	0.08	0.08
Bulk Supply	0.22	0.23	0.24	0.26
Sub Total	11.93	12.67	13.47	14.33
Car Nicobar				
Domestic	5.42	5.70	5.98	6.28
N-Domestic	3.78	3.97	4.16	4.36
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.07	0.07	0.07	0.07
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	9.28	9.74	10.22	10.72
Katchal				
Domestic	0.52	0.56	0.59	0.63
N-Domestic	0.32	0.33	0.35	0.36
Industrial	0.02	0.02	0.02	0.02
Public Lighting	0.07	0.07	0.07	0.07
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.92	0.97	1.03	1.08
Kamorta				
Domestic	0.78	0.83	0.88	0.94
N-Domestic	0.55	0.58	0.61	0.64
Industrial	0.06	0.07	0.07	0.08
Public Lighting	0.27	0.27	0.28	0.28
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.44	0.45	0.45	0.46
Sub Total	2.10	2.19	2.29	2.40
Chowra				
Domestic	0.20	0.21	0.23	0.24
N-Domestic	0.02	0.02	0.02	0.02
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.05	0.05	0.05	0.05
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.28	0.29	0.30	0.32
Teressa				
Domestic	0.54	0.60	0.67	0.74
N-Domestic	1.12	1.18	1.23	1.29
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.03	0.03	0.03	0.03
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	1.69	1.80	1.93	2.06

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Champion				
Domestic	0.19	0.20	0.23	0.25
N-Domestic	0.03	0.03	0.04	0.04
Industrial	0.00	0.00	0.00	0.00
Public Lighting	0.02	0.02	0.02	0.02
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.00	0.00	0.00	0.00
Sub Total	0.24	0.26	0.28	0.31
Campbell Bay				
Domestic	2.15	2.19	2.23	2.28
N-Domestic	1.12	1.26	1.43	1.61
Industrial	0.30	0.33	0.37	0.42
Public Lighting	0.22	0.22	0.22	0.22
Agriculture	0.00	0.00	0.00	0.00
Bulk Supply	0.52	0.53	0.55	0.57
Sub Total	4.30	4.54	4.80	5.09
Andaman and Nicobar Islands				
Domestic	123.47	131.90	140.92	150.56
N-Domestic	62.14	63.69	65.31	66.99
Industrial	14.59	15.91	17.35	18.93
Public Lighting	9.21	9.37	9.53	9.70
Agriculture	0.87	0.87	0.87	0.87
Bulk Supply	30.39	30.86	31.34	31.82
Grand Total	240.67	252.60	265.32	278.87

Table 4: Historical Island Number of Consumers

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (in Nos.)			
Headquarters				
Domestic	53936	53648	56309	57338
N-Domestic	10127	10351	10716	10868
Industrial	345	348	352	367
Public Lighting	324	363	379	369
Agriculture	198	124	131	140
Bulk Supply	39	42	43	44
Sub Total	64969	64876	67930	69126
Neil Islands				
Domestic	608	600	654	663
N-Domestic	124	124	140	147
Industrial	5	4	5	6
Public Lighting	1	3	1	1
Agriculture	52	54	54	62
Bulk Supply	0	0	0	0
Sub Total	790	785	854	879
Havelock				
Domestic	1126	1295	1382	1349
N-Domestic	280	311	336	383
Industrial	2	1	2	6
Public Lighting	7	7	8	8
Agriculture	2	1	1	1
Bulk Supply	0	0	0	0
Sub Total	1417	1615	1729	1747
HutBay, Strait Island and Dugong Creek				
Domestic	5225	5445	5540	5706
N-Domestic	813	828	840	444
Industrial	32	33	31	33
Public Lighting	8	8	8	9
Agriculture	11	11	11	11
Bulk Supply	2	1	1	2
Sub Total	6091	6326	6431	6205
Rangat				
Domestic	13383	14495	15024	15409
N-Domestic	2868	2926	3008	3065
Industrial	53	53	52	56
Public Lighting	85	94	94	96
Agriculture	13	14	15	19
Bulk Supply	0	0	0	0
Sub Total	16402	17582	18193	18645

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (in Nos.)			
Hanspuri				
Domestic	37	41	43	46
N-Domestic	3	4	5	5
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	40	45	48	51
Long Island				
Domestic	248	269	290	281
N-Domestic	72	70	68	69
Industrial	1	1	1	1
Public Lighting	1	2	2	2
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	322	342	361	353
Ganesh Nagar				
Domestic		55	59	59
N-Domestic		0	2	1
Industrial		0	0	0
Public Lighting		0	0	0
Agriculture		0	0	0
Bulk Supply		0	0	0
Sub Total	0	55	61	60
Gandhi Nagar				
Domestic		34	71	96
N-Domestic		1	3	3
Industrial		0	0	0
Public Lighting		0	0	0
Agriculture		0	0	0
Bulk Supply		0	0	0
Sub Total	0	35	74	99
Shanti Nagar				
Domestic		41	46	45
N-Domestic		0	1	2
Industrial		0	0	0
Public Lighting		0	0	0
Agriculture		1	0	0
Bulk Supply		0	0	0
Sub Total	0	42	47	47
Smith Island				

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (in Nos.)			
Domestic	42	52	63	68
N-Domestic	7	7	8	8
Industrial	0	0	0	0
Public Lighting	1	50	1	1
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	50	109	72	77
Diglipur				
Domestic	7984	8794	9500	10046
N-Domestic	1374	1451	1518	1564
Industrial	30	35	44	36
Public Lighting	50	53	53	43
Agriculture	10	13	14	17
Bulk Supply	2	3	3	4
Sub Total	9450	10349	11132	11710
Car Nicobar				
Domestic	4188	4138	3841	3837
N-Domestic	272	386	386	407
Industrial	1	1	1	1
Public Lighting	5	5	8	9
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	4466	4530	4236	4254
Katchal				
Domestic	620	636	640	651
N-Domestic	114	119	132	133
Industrial	5	5	5	5
Public Lighting	4	4	4	4
Agriculture	0	0	0	1
Bulk Supply	0	0	0	0
Sub Total	743	764	781	794
Kamorta				
Domestic	858	874	875	860
N-Domestic	184	184	189	214
Industrial	4	5	5	5
Public Lighting	5	5	5	11
Agriculture	0	0	0	0
Bulk Supply	1	1	1	1
Sub Total	1052	1069	1075	1091
Chowra				
Domestic	316	323	373	359

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actual (in Nos.)			
N-Domestic	20	23	22	20
Industrial	0	0	0	0
Public Lighting	7	7	7	7
Agriculture		0	0	0
Bulk Supply	2	0	0	0
Sub Total	345	353	402	386
Teressa				
Domestic	773	581	549	555
N-Domestic	91	89	83	83
Industrial	0	0	0	0
Public Lighting	14	9	9	9
Agriculture	6	0	0	0
Bulk Supply	0	0	0	0
Sub Total	884	679	641	647
Champion				
Domestic	215	216	216	216
N-Domestic	22	22	23	24
Industrial	0	0	0	0
Public Lighting	1	1	1	1
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	238	239	240	241
Campbell Bay				
Domestic	2115	2231	2274	2315
N-Domestic	373	384	394	426
Industrial	14	15	16	17
Public Lighting	38	38	46	47
Agriculture	0	0	0	1
Bulk Supply	9	9	9	9
Sub Total	2549	2677	2739	2815
Andaman and Nicobar Islands				
Domestic	91674	93768	97749	99899
N-Domestic	16744	17280	17874	17866
Industrial	492	501	514	533
Public Lighting	551	649	626	617
Agriculture	292	218	226	252
Bulk Supply	55	56	57	60
Grand Total	109808	112472	117046	119227

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Table 5: Category-wise growth rate for Number of Consumers as considered by the Commission (in %age)

Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Headquarters				
Domestic	2.06%	3.38%	3.22%	2.06%
N-Domestic	2.38%	2.47%	2.89%	2.38%
Industrial	2.08%	2.69%	3.14%	2.08%
Public Lighting	4.43%	0.82%	4.37%	4.43%
Agriculture	-10.91%	6.26%	5.00%	0.00%
Bulk Supply	4.10%	2.35%	5.00%	4.10%
Neil Islands				
Domestic	2.93%	5.12%	3.22%	2.93%
N-Domestic	5.84%	8.88%	2.89%	5.84%
Industrial	6.27%	22.47%	3.14%	6.27%
Public Lighting	0.00%	-42.26%	4.37%	0.00%
Agriculture	6.04%	7.15%	5.00%	6.04%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Havelock				
Domestic	6.21%	2.06%	3.22%	6.21%
N-Domestic	11.01%	10.97%	2.89%	11.01%
Industrial	44.22%	144.95%	3.14%	5.00%
Public Lighting	4.55%	6.90%	4.37%	4.55%
Agriculture	-20.63%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
HutBay, Strait Island and Dugong Creek				
Domestic	2.98%	2.37%	3.22%	2.98%
N-Domestic	-18.26%	-26.77%	2.89%	0.00%
Industrial	1.03%	0.00%	3.14%	1.03%
Public Lighting	4.00%	6.07%	4.37%	4.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	41.42%	5.00%	0.00%
Rangat				
Domestic	4.81%	3.10%	3.22%	4.81%
N-Domestic	2.24%	2.35%	2.89%	2.24%
Industrial	1.85%	2.79%	3.14%	1.85%
Public Lighting	4.14%	1.06%	4.37%	4.14%
Agriculture	13.48%	16.50%	5.00%	5.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Hanspuri				

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Domestic	7.53%	5.92%	3.22%	7.53%
N-Domestic	18.56%	11.80%	2.89%	5.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Long Island				
Domestic	4.25%	2.21%	3.22%	4.25%
N-Domestic	-1.41%	-0.72%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	25.99%	0.00%	4.37%	4.37%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Ganesh Nagar				
Domestic	0.00%	3.57%	3.22%	3.57%
N-Domestic	0.00%	0.00%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Gandhi Nagar				
Domestic	0.00%	68.03%	3.22%	3.22%
N-Domestic	0.00%	73.21%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Shanti Nagar				
Domestic	0.00%	4.76%	3.22%	3.22%
N-Domestic	0.00%	0.00%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	-100.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Smith Island				
Domestic	17.42%	14.35%	3.22%	3.22%
N-Domestic	4.55%	6.90%	2.89%	4.55%
Industrial	0.00%	0.00%	3.14%	0.00%

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Public Lighting	0.00%	-85.86%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Diglipur				
Domestic	7.96%	6.88%	3.22%	7.96%
N-Domestic	4.41%	3.82%	2.89%	4.41%
Industrial	6.27%	1.42%	3.14%	6.27%
Public Lighting	-4.90%	-9.93%	4.37%	0.00%
Agriculture	19.35%	14.35%	5.00%	5.00%
Bulk Supply	25.99%	15.47%	5.00%	5.00%
Car Nicobar				
Domestic	-2.88%	-3.71%	3.22%	3.22%
N-Domestic	14.38%	2.68%	2.89%	2.89%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	21.64%	34.16%	4.37%	4.37%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Katchal				
Domestic	1.64%	1.17%	3.22%	1.17%
N-Domestic	5.27%	5.72%	2.89%	5.72%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Kamorta				
Domestic	0.08%	-0.80%	3.22%	0.08%
N-Domestic	5.16%	7.84%	2.89%	5.16%
Industrial	7.72%	0.00%	3.14%	7.72%
Public Lighting	30.06%	48.32%	4.37%	4.37%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Chowra				
Domestic	4.34%	5.43%	3.22%	4.34%
N-Domestic	0.00%	-6.75%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	-100.00%	0.00%	5.00%	0.00%

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR			
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved in B.P. Order*	Approved in this Order
Teressa				
Domestic	-10.46%	-2.26%	3.22%	3.22%
N-Domestic	-3.02%	-3.43%	2.89%	0.00%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	-13.69%	0.00%	4.37%	0.00%
Agriculture	-100.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Champion				
Domestic	0.15%	0.00%	3.22%	0.15%
N-Domestic	2.94%	4.45%	2.89%	2.94%
Industrial	0.00%	0.00%	3.14%	0.00%
Public Lighting	0.00%	0.00%	4.37%	0.00%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%
Campbell Bay				
Domestic	3.06%	1.87%	3.22%	3.06%
N-Domestic	4.53%	5.33%	2.89%	4.53%
Industrial	6.69%	6.46%	3.14%	6.69%
Public Lighting	7.34%	11.21%	4.37%	7.34%
Agriculture	0.00%	0.00%	5.00%	0.00%
Bulk Supply	0.00%	0.00%	5.00%	0.00%

* *Approved on consolidated basis in Business Plan Order by the Commission*

Table 6: Island wise and Category-wise Number of Consumers as approved by the Commission for MYT Control Period (In Nos.)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	58519	59724	60955	62210
N-Domestic	11127	11392	11663	11941
Industrial	375	382	390	399
Public Lighting	385	402	420	439
Agriculture	140	140	140	140
Bulk Supply	46	48	50	52
Sub Total	70592	72089	73618	75180
Neil Islands				
Domestic	682	702	723	744
N-Domestic	156	165	174	184
Industrial	6	7	7	8
Public Lighting	1	1	1	1
Agriculture	66	70	74	78
Bulk Supply	0	0	0	0
Sub Total	911	945	979	1016
Havelock				
Domestic	1433	1522	1616	1716
N-Domestic	425	472	524	582
Industrial	6	7	7	7
Public Lighting	8	9	9	10
Agriculture	1	1	1	1
Bulk Supply	0	0	0	0
Sub Total	1874	2010	2157	2316
HutBay, Strait Island and Dugong Creek				
Domestic	5876	6051	6231	6417
N-Domestic	444	444	444	444
Industrial	33	34	34	34
Public Lighting	9	10	10	11
Agriculture	11	11	11	11
Bulk Supply	2	2	2	2
Sub Total	6376	6551	6732	6919
Rangat				
Domestic	16150	16927	17742	18595
N-Domestic	3134	3204	3276	3349
Industrial	57	58	59	60
Public Lighting	100	104	108	113
Agriculture	20	21	22	23
Bulk Supply	0	0	0	0

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Sub Total	19461	20314	21207	22140
Hanspuri				
Domestic	49	53	57	61
N-Domestic	5	6	6	6
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	55	59	63	68
Long Island				
Domestic	293	305	318	332
N-Domestic	69	69	69	69
Industrial	1	1	1	1
Public Lighting	2	2	2	2
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	365	378	391	404
Ganesh Nagar				
Domestic	61	63	66	68
N-Domestic	1	1	1	1
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	62	64	67	69
Gandhi Nagar				
Domestic	99	102	106	109
N-Domestic	3	3	3	3
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	102	105	109	112
Shanti Nagar				
Domestic	46	48	49	51
N-Domestic	2	2	2	2
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	48	50	51	53

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Smith Island				
Domestic	70	72	75	77
N-Domestic	8	9	9	10
Industrial	0	0	0	0
Public Lighting	1	1	1	1
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	80	82	85	88
Diglipur				
Domestic	10846	11709	12641	13647
N-Domestic	1633	1705	1780	1859
Industrial	38	41	43	46
Public Lighting	43	43	43	43
Agriculture	18	19	20	21
Bulk Supply	4	4	5	5
Sub Total	12582	13521	14531	15620
Car Nicobar				
Domestic	3961	4088	4220	4356
N-Domestic	419	431	443	456
Industrial	1	1	1	1
Public Lighting	9	10	10	11
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	4390	4530	4674	4823
Katchal				
Domestic	659	666	674	682
N-Domestic	141	149	157	166
Industrial	5	5	5	5
Public Lighting	4	4	4	4
Agriculture	1	1	1	1
Bulk Supply	0	0	0	0
Sub Total	809	825	841	858
Kamorta				
Domestic	861	861	862	863
N-Domestic	225	237	249	262
Industrial	5	6	6	7
Public Lighting	11	12	13	13
Agriculture	0	0	0	0
Bulk Supply	1	1	1	1
Sub Total	1104	1117	1131	1145
Chowra				

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Domestic	375	391	408	426
N-Domestic	20	20	20	20
Industrial	0	0	0	0
Public Lighting	7	7	7	7
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	402	418	435	453
Teressa				
Domestic	573	591	610	630
N-Domestic	83	83	83	83
Industrial	0	0	0	0
Public Lighting	9	9	9	9
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	665	683	702	722
Champion				
Domestic	216	217	217	217
N-Domestic	25	25	26	27
Industrial	0	0	0	0
Public Lighting	1	1	1	1
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	242	243	244	245
Campbell Bay				
Domestic	2386	2459	2534	2611
N-Domestic	445	465	487	509
Industrial	18	19	21	22
Public Lighting	50	54	58	62
Agriculture	1	1	1	1
Bulk Supply	9	9	9	9
Sub Total	2910	3008	3109	3214
Andaman and Nicobar Islands				
Domestic	103155	106553	110103	113813
N-Domestic	18364	18881	19416	19972
Industrial	546	560	575	590
Public Lighting	642	669	697	726
Agriculture	258	263	270	276
Bulk Supply	62	64	66	69
Grand Total	123027	126991	131127	135445

Table 7: Historical Island-wise Connected Load (in KW)

Categories	FY 12	FY 13	FY 14	FY 15
	Actuals (in KW)			
Headquarters				
Domestic	53426	57671	59384	72431
N-Domestic	34839	38437	36826	32796
Industrial	7943	8177	8575	10372
Public Lighting	1624	2108	1683	1661
Agriculture	441	526	385	484
Bulk Supply	8384	9018	9117	9574
Sub Total	106657	115937	115970	127318
Neil Islands				
Domestic	244	264	274	281
N-Domestic	150	172	205	195
Industrial	47	47	47	97
Public Lighting	15	15	15	15
Agriculture	31	34	82	37
Bulk Supply	0	0	0	0
Sub Total	487	531	623	625
Havelock				
Domestic	503	625	723	774
N-Domestic	749	876	886	573
Industrial	132	2	68	887
Public Lighting	27	27	27	29
Agriculture	1	1	1	1
Bulk Supply	0	0	0	0
Sub Total	1412	1530	1705	2264
HutBay, Strait Island and Dugong Creek				
Domestic	9103	9189	9267	9362
N-Domestic	1175	1232	1275	1307
Industrial	467	469	597	628
Public Lighting	208	207	207	209
Agriculture	11	11	11	12
Bulk Supply	10	10	10	12
Sub Total	10974	11118	11367	11530
Rangat				
Domestic	8707	9725	10115	10634
N-Domestic	5428	5689	5798	5956
Industrial	834	851	846	990
Public Lighting	288	294	298	312
Agriculture	38	19	18	26
Bulk Supply	0	19	0	0
Sub Total	15295	16597	17075	17918

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actuals (in KW)			
Hanspuri				
Domestic	9	11	11	12
N-Domestic	3	4	6	6
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	12	14	17	18
Long Island				
Domestic	63	80	374	368
N-Domestic	47	56	276	293
Industrial	10	10	10	10
Public Lighting	11	13	13	13
Agriculture	2	0	0	0
Bulk Supply	16	0	0	0
Sub Total	149	159	673	684
Ganesh Nagar				
Domestic		8	21	21
N-Domestic		5	1	1
Industrial		0	0	0
Public Lighting		0	0	0
Agriculture		0	0	0
Bulk Supply		0	0	0
Sub Total	0	12	22	22
Gandhi Nagar				
Domestic			26	34
N-Domestic			3	3
Industrial			0	0
Public Lighting			0	0
Agriculture			0	0
Bulk Supply			1	0
Sub Total	0	0	30	37
Shanti Nagar				
Domestic			15	14
N-Domestic			1	1
Industrial			0	0
Public Lighting			0	0
Agriculture			0	0
Bulk Supply			0	0
Sub Total	0	0	16	15
Smith Island				

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actuals (in KW)			
Domestic	17	26	27	28
N-Domestic	12	12	14	12
Industrial	0	0	0	0
Public Lighting	1	2	3	2
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	30	40	44	42
Diglipur				
Domestic	4442	4139	4818	4834
N-Domestic	1737	2238	2342	2407
Industrial	610	701	705	705
Public Lighting	95	149	139	141
Agriculture	102	127	129	136
Bulk Supply	7	83	83	103
Sub Total	6993	7436	8216	8326
Car Nicobar				
Domestic	5508	5525	4712	4726
N-Domestic	1050	1163	1389	1509
Industrial	20	20	20	20
Public Lighting	23	23	28	28
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	6601	6730	6149	6283
Katchal				
Domestic	367	382	390	403
N-Domestic	397	769	920	945
Industrial	81	79	79	79
Public Lighting	12	12	12	12
Agriculture	0	0	0	1
Bulk Supply	0	0	0	0
Sub Total	857	1241	1401	1440
Kamorta				
Domestic	731	760	762	733
N-Domestic	316	322	344	374
Industrial	23	23	29	29
Public Lighting	27	27	27	38
Agriculture	0	0	0	0
Bulk Supply	45	45	45	48
Sub Total	1142	1177	1207	1222
Chowra				
Domestic	379	392	396	431

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 12	FY 13	FY 14	FY 15
	Actuals (in KW)			
N-Domestic	25	27	26	25
Industrial	0	0	10	0
Public Lighting	11	10	0	10
Agriculture	0	0	0	0
Bulk Supply	2	0	0	0
Sub Total	417	429	432	466
Teresa				
Domestic	936	701	655	663
N-Domestic	140	144	128	130
Industrial	0	0	0	0
Public Lighting	48	21	20	20
Agriculture	5	0	0	0
Bulk Supply	0	0	0	0
Sub Total	1129	866	803	813
Champion				
Domestic	466	469	469	469
N-Domestic	30	31	30	31
Industrial	0	12	0	0
Public Lighting	12	0	12	12
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	508	511	511	512
Campbell Bay				
Domestic	2486	2595	2641	2700
N-Domestic	549	579	602	84
Industrial	185	188	220	221
Public Lighting	50	50	50	54
Agriculture	10	0	1	2
Bulk Supply	137	137	137	137
Sub Total	3417	3549	3651	3198
Andaman and Nicobar Islands				
Domestic	87387	92559	95080	108918
N-Domestic	46647	51754	51072	46648
Industrial	10352	10577	11206	14038
Public Lighting	2452	2957	2534	2556
Agriculture	641	718	627	699
Bulk Supply	8601	9312	9393	9874
Grand Total	156080	167877	169912	182733

Table 8: Category-wise growth rate for Connected Load as considered by the Commission (in %age)

Categories	CAGR		
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved
Headquarters			
Domestic	10.68%	12.07%	10.68%
N-Domestic	-1.99%	-7.63%	0.00%
Industrial	9.30%	12.63%	9.30%
Public Lighting	0.75%	-11.23%	0.75%
Agriculture	3.15%	-4.08%	3.15%
Bulk Supply	4.52%	3.04%	4.52%
Sub Total			
Neil Islands			
Domestic	4.82%	3.26%	4.82%
N-Domestic	9.14%	6.48%	9.14%
Industrial	27.32%	43.74%	10.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	6.08%	4.75%	6.08%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Havelock			
Domestic	15.45%	11.30%	15.45%
N-Domestic	-8.54%	-19.11%	0.00%
Industrial	88.70%	2005.94%	10.00%
Public Lighting	2.41%	3.26%	2.41%
Agriculture	0.00%	19.52%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
HutBay, Strait Island and Dugong Creek			
Domestic	0.94%	0.94%	0.94%
N-Domestic	3.61%	3.00%	3.61%
Industrial	10.38%	15.77%	10.38%
Public Lighting	0.16%	0.37%	0.16%
Agriculture	2.94%	3.42%	2.94%
Bulk Supply	6.27%	9.54%	6.27%
Sub Total			
Rangat			
Domestic	6.89%	4.57%	6.89%
N-Domestic	3.14%	2.32%	3.14%
Industrial	5.88%	7.83%	5.88%
Public Lighting	2.70%	3.01%	2.70%
Agriculture	-11.88%	16.07%	0.00%
Bulk Supply	0.00%	-100.00%	0.00%

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR		
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved
Sub Total			
Hanspuri			
Domestic	10.06%	6.30%	10.06%
N-Domestic	25.99%	26.16%	10.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Long Island			
Domestic	80.10%	114.28%	10.00%
N-Domestic	84.04%	129.07%	10.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	5.73%	1.17%	5.73%
Agriculture	-100.00%	0.00%	0.00%
Bulk Supply	-100.00%	0.00%	0.00%
Sub Total			
Ganesh Nagar			
Domestic	0.00%	65.79%	5.00%
N-Domestic	0.00%	-53.87%	0.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Gandhi Nagar			
Domestic	0.00%	0.00%	5.00%
N-Domestic	0.00%	0.00%	5.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Shanti Nagar			
Domestic	0.00%	0.00%	5.00%
N-Domestic	0.00%	0.00%	5.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR		
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved
Smith Island			
Domestic	18.10%	4.79%	10.00%
N-Domestic	0.00%	1.36%	0.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	25.99%	-9.83%	10.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Diglipur			
Domestic	2.86%	8.07%	2.86%
N-Domestic	11.49%	3.71%	11.49%
Industrial	4.94%	0.30%	4.94%
Public Lighting	14.07%	-2.59%	10.00%
Agriculture	10.06%	3.39%	10.06%
Bulk Supply	145.05%	11.40%	10.00%
Sub Total			
Car Nicobar			
Domestic	-4.98%	-7.51%	0.00%
N-Domestic	12.85%	13.93%	12.85%
Industrial	0.00%	0.89%	0.00%
Public Lighting	6.78%	11.55%	6.78%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Katchal			
Domestic	3.17%	2.77%	3.17%
N-Domestic	33.52%	10.86%	10.00%
Industrial	-0.83%	0.24%	0.00%
Public Lighting	0.00%	1.06%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Kamorta			
Domestic	0.09%	-1.81%	0.09%
N-Domestic	5.78%	7.76%	5.78%
Industrial	8.03%	13.15%	8.03%
Public Lighting	12.07%	19.17%	12.07%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	2.17%	3.28%	2.17%
Sub Total			
Chowra			

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	CAGR		
	3 Years FY 12 to FY 15	2 Years FY 13 to FY 15	Approved
Domestic	4.38%	4.92%	4.38%
N-Domestic	0.00%	-3.77%	0.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	-3.13%	-2.04%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	-100.00%	0.00%	0.00%
Sub Total			
Teressa			
Domestic	-10.86%	-2.77%	0.00%
N-Domestic	-2.44%	-4.98%	0.00%
Industrial	0.00%	0.00%	0.00%
Public Lighting	-25.31%	-1.32%	0.00%
Agriculture	-100.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Champion			
Domestic	0.21%	0.04%	0.21%
N-Domestic	1.10%	0.28%	1.10%
Industrial	0.00%	-100.00%	0.00%
Public Lighting	0.00%	0.00%	0.00%
Agriculture	0.00%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			
Campbell Bay			
Domestic	2.79%	2.01%	2.79%
N-Domestic	-46.51%	-61.92%	0.00%
Industrial	6.11%	8.54%	6.11%
Public Lighting	2.60%	4.01%	2.60%
Agriculture	-41.52%	0.00%	0.00%
Bulk Supply	0.00%	0.00%	0.00%
Sub Total			

** In case of abnormal growth patterns, the Commission has considered the nominal growth rate of 5% or 10% depending on the sales and consumer mix of the particular island. Also, in absence of any historical information or negative growth rate, the Commission has considered Nil growth in those categories.*

Table 9: Island wise and Category-wise Connected Load as approved by the Commission for MYT Control Period (In kW)

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Headquarters				
Domestic	80164	88724	98197	108681
N-Domestic	32796	32796	32796	32796
Industrial	11337	12391	13544	14804
Public Lighting	1674	1686	1699	1712
Agriculture	499	515	531	548
Bulk Supply	10007	10460	10933	11427
Sub Total	136477	146572	157699	169968
Neil Islands				
Domestic	295	309	324	339
N-Domestic	213	232	254	277
Industrial	107	117	129	142
Public Lighting	15	15	15	15
Agriculture	39	42	44	47
Bulk Supply	0	0	0	0
Sub Total	668	715	765	820
Havelock				
Domestic	894	1032	1191	1375
N-Domestic	573	573	573	573
Industrial	976	1073	1181	1299
Public Lighting	30	30	31	32
Agriculture	1	1	1	1
Bulk Supply	0	0	0	0
Sub Total	2473	2709	2977	3280
HutBay, Strait Island and Dugong Creek				
Domestic	9450	9539	9628	9719
N-Domestic	1354	1403	1454	1506
Industrial	693	765	845	932
Public Lighting	209	210	210	210
Agriculture	12	13	13	13
Bulk Supply	13	14	14	15
Sub Total	11732	11943	12164	12396
Rangat				
Domestic	11367	12150	12987	13882
N-Domestic	6143	6336	6535	6741
Industrial	1048	1110	1175	1244
Public Lighting	320	329	338	347
Agriculture	26	26	26	26
Bulk Supply	0	0	0	0

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Sub Total	18905	19951	21062	22241
Hanspuri				
Domestic	13	15	16	18
N-Domestic	7	7	8	9
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	20	22	24	26
Long Island				
Domestic	405	445	490	539
N-Domestic	322	355	390	429
Industrial	10	10	10	10
Public Lighting	14	15	15	16
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	751	824	905	994
Ganesh Nagar				
Domestic	22	23	24	26
N-Domestic	1	1	1	1
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	23	24	25	27
Gandhi Nagar				
Domestic	36	37	39	41
N-Domestic	3	3	3	4
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	39	41	43	45
Shanti Nagar				
Domestic	15	15	16	17
N-Domestic	1	1	1	1
Industrial	0	0	0	0
Public Lighting	0	0	0	0
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	16	17	17	18

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Smith Island				
Domestic	31	34	37	41
N-Domestic	12	12	12	12
Industrial	0	0	0	0
Public Lighting	2	2	3	3
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	45	48	52	56
Diglipur				
Domestic	4972	5114	5261	5411
N-Domestic	2683	2992	3335	3719
Industrial	740	776	815	855
Public Lighting	155	171	188	206
Agriculture	150	165	181	200
Bulk Supply	113	125	137	151
Sub Total	8814	9343	9917	10541
Car Nicobar				
Domestic	4726	4726	4726	4726
N-Domestic	1703	1922	2169	2447
Industrial	20	20	20	20
Public Lighting	30	32	34	36
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	6479	6700	6949	7230
Katchal				
Domestic	416	429	443	457
N-Domestic	1040	1143	1258	1384
Industrial	79	79	79	79
Public Lighting	12	12	12	12
Agriculture	1	1	1	1
Bulk Supply	0	0	0	0
Sub Total	1547	1664	1792	1932
Kamorta				
Domestic	734	734	735	736
N-Domestic	396	418	443	468
Industrial	31	34	37	40
Public Lighting	43	48	53	60
Agriculture	0	0	0	0
Bulk Supply	49	50	51	52
Sub Total	1252	1284	1319	1356
Chowra				

Multi Year Tariff Order for 1st MYT Control Period and Retail Supply Tariff for FY 2016-17

Categories	FY 16	FY 17	FY 18	FY 19
	R.E.	Projected		
Domestic	450	470	490	512
N-Domestic	25	25	25	25
Industrial	0	0	0	0
Public Lighting	10	10	10	10
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	485	505	525	547
Teressa				
Domestic	663	663	663	663
N-Domestic	130	130	130	130
Industrial	0	0	0	0
Public Lighting	20	20	20	20
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	813	813	813	813
Champion				
Domestic	470	471	472	473
N-Domestic	31	32	32	32
Industrial	0	0	0	0
Public Lighting	12	12	12	12
Agriculture	0	0	0	0
Bulk Supply	0	0	0	0
Sub Total	513	515	516	517
Campbell Bay				
Domestic	2775	2853	2932	3014
N-Domestic	84	84	84	84
Industrial	234	249	264	280
Public Lighting	55	57	58	60
Agriculture	2	2	2	2
Bulk Supply	137	137	137	137
Sub Total	3288	3381	3478	3577
Andaman and Nicobar Islands				
Domestic	117896	127783	138672	150669
N-Domestic	47517	48466	49503	50637
Industrial	15275	16625	18098	19704
Public Lighting	2601	2648	2699	2752
Agriculture	731	764	800	838
Bulk Supply	10319	10785	11273	11783
Grand Total	194339	207071	221043	236383