

GUJARAT ELECTRICITY REGULATORY COMMISSION



Tariff Order

Truing up for FY 2017-18,
Mid-Term Review of ARR for FY 2019-20 to 2020-21
and Determination of Tariff for FY 2019-20

For

**Uttar Gujarat Vij Company Limited
(UGVCL)**

**Case No. 1759 of 2018
24th April, 2019**

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**GUJARAT ELECTRICITY REGULATORY COMMISSION
(GERC)
GANDHINAGAR**

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Mid-Term Review of ARR for FY 2019-20 to FY 2020-21
And Determination of Tariff for FY 2019-20

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(UGVCL)**

**Case No. 1759 of 2018
24th April, 2019**

ABBREVIATIONS

| | |
|----------------|---|
| A&G | Administration and General Expenses |
| AB Cable | Aerial Bunched Cable |
| APR | Annual Performance Review |
| ARR | Aggregate Revenue Requirement |
| CAGR | Compound Annual Growth Rate |
| CAPEX | Capital Expenditure |
| CERC | Central Electricity Regulatory Commission |
| Control Period | FY 2016-17 to FY 2020-21 |
| DGVCL | Dakshin Gujarat Vij Company Limited |
| DISCOM | Distribution Company |
| EHV | Extra High Voltage |
| FPPPA | Fuel and Power Purchase Price Adjustment |
| FY | Financial Year |
| GEB | Gujarat Electricity Board |
| GERC | Gujarat Electricity Regulatory Commission |
| GETCO | Gujarat Energy Transmission Corporation Limited |
| GFA | Gross Fixed Assets |
| GoG | Government of Gujarat |
| GSECL | Gujarat State Electricity Corporation Limited |
| GUVNL | Gujarat UrjaVikas Nigam Limited |
| HT | High Tension |
| JGY | Jyoti Gram Yojna |
| kV | Kilo Volt |
| kVA | Kilo Volt Ampere |
| kVAh | Kilo Volt Ampere Hour |
| kWh | Kilo Watt Hour |
| LT | Low Tension Power |
| MCLR | Marginal Cost of Funds based Lending Rate |
| MGVCL | Madhya Gujarat Vij Company Limited |
| MTR | Mid-Term Review |
| MUs | Million Units (Million kWh) |
| MW | Mega Watt |
| MYT | Multi Year Tariff |
| O&M | Operation & Maintenance |
| PF | Power Factor |
| PFC | Power Finance Corporation |
| PGCIL | Power Grid Corporation of India Limited |
| PGVCL | Paschim Gujarat Vij Company Limited |
| PPA | Power Purchase Agreement |
| PPPA | Power Purchase Price Adjustment |
| R&M | Repair and Maintenance |
| RE | Revised Estimate |
| RLDC | Regional Load Despatch Centre |
| SBAR | State Bank Advance Rate |
| SBI | State Bank of India |
| SLDC | State Load Despatch Centre |
| UGVCL | Uttar Gujarat Vij Company Limited |
| WRLDC | Western Regional Load Despatch Centre |
| YoY | Year on Year |



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**GUJARAT ELECTRICITY REGULATORY COMMISSION
GANDHINAGAR**

Case No. 1759 of 2018

Date of the Order 24.04.2019

CORAM

Shri Anand Kumar, Chairman

Shri K. M. Shringarpure, Member

Shri P. J. Thakkar, Member

ORDER



1 Background and Brief History

1.1 Background

Uttar Gujarat Vij Company Ltd., (hereinafter referred to as “UGVCL” or the “Petitioner”) has on 30th November, 2018 filed a petition under Section 62 of the Electricity Act, 2003, read with Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016, for the Truing up of FY 2017-18, Mid-Term Review of ARR for FY 2019-20 to FY 2020-21 and Determination of retail supply tariff for FY 2019-20.

Gujarat Electricity Regulatory Commission notified the GERC (Multi-Year Tariff) Regulations, 2016 on 29th March, 2016 which shall be applicable for determination of tariff in all cases covered under the Regulations from 1st April, 2016 onwards. Regulation 17.2 (c) of the GERC (Multi-Year Tariff) Regulations, 2016 of GERC provides for submission of detailed application comprising of truing up for FY 2017-18, modification of the ARR for the remaining years of the control period, revenue from the sale of power at existing tariffs and charges for the ensuing year (FY 2019-20), revenue (Gap) or revenue Surplus for the ensuing year calculated based on Aggregate Revenue Requirement approved in the MYT Order and truing up for the previous year, application for determination of tariff for the ensuing year (FY 2019-20) to be carried out under Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016 and Amendment there of time to time.

After technical validation of the petition, it was registered on 04th December, 2018 and as provided under Regulation 29.1 of the GERC (MYT) Regulations, 2016, the Commission has proceeded with this tariff order.

1.2 Uttar Gujarat Vij Company Limited (UGVCL)

Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies. The seven successor companies are listed below:

Generation Company Gujarat State Electricity Corporation Limited (GSECL)

Transmission Company Gujarat Energy Transmission Corporation Limited (GETCO)

Distribution Companies:

| Sr. No. | Name of Company |
|----------------|---|
| 1 | Dakshin Gujarat Vij Company Limited (DGVCL) |
| 2 | Madhya Gujarat Vij Company Limited (MGVCL) |
| 3 | Uttar Gujarat Vij Company Limited (UGVCL) |
| 4 | Paschim Gujarat Vij Company Limited (PGVCL) |

Gujarat Urja Vikas Nigam Limited (GUVNL), a holding company, is responsible for purchase of electricity from various sources and supply to Distribution Companies and also other activities including trading of electricity.

The Government of Gujarat, vide Notification dated 3rd October, 2006, notified the final opening balance sheets of the transferee companies as on 1st April, 2005. The value of assets and liabilities, which stand transferred from the erstwhile Gujarat Electricity Board to the transferee companies, include Uttar Gujarat Vij Company Limited (UGVCL). Assets and liabilities (gross block, loans and equity), as on the date mentioned in the notification, have been considered by the Commission in line with the Financial Restructuring Plan (FRP), as approved by Government of Gujarat.

1.3 Commission's Orders for the second Control period

The Petitioner filed its petition for Truing up for 2015-16, Approval of Final ARR for 2016-17, Approval of Multi-Year ARR for FY 2016-17 to FY 2020-21 and Determination of tariff for 2017- 18 on 30th November 2016. The petition was registered on 03rd December 2016 (Case No. 1622 of 2016). The Commission vide Order dated 31st March, 2017 approved the Truing up for 2015-16, Final ARR for 2016-17, Approval of Multi-Year ARR for FY 2016-17 to FY 2020-21 and determined the tariff for FY 2017-18.

1.4 Commission's Order for approval of True Up for FY 2016-17 and determination of Tariff for FY 2018-19

The Petitioner filed its Petition for Truing-up of FY 2016-17 and determination of tariff for FY 2018-19 on 15th January, 2018. After technical validation of the petition, it was registered on 17th January, 2018 (Case No. 1699/2018). The Commission vide Order dated 31st March, 2018 approved truing up for FY 2016-17 and determined the tariff for FY 2018-19.



1.5 Background for the present petition

The Commission has notified the GERC (MYT) Regulations, 2016 for the control period of FY 2016-17 to FY 2020-21. Regulation 16.2 (i) of the GERC (MYT) Regulations, 2016, provides for filing of Mid- Term Review petition by the utilities and based on which the Commission shall undertake review of ARR of the utilities for remaining years of the control period. Further, Regulation 16.2(iii) of the GERC (MYT) Regulations, 2016 provides for the truing up of previous year's expenses and revenue based on audited accounts vis a vis the approved forecast and categorisation of variation in performance as those caused by factors within the control of applicant (controllable factors) and those caused by factors beyond the control of applicant (uncontrollable factors).

Also, Regulation 16.2(vi) of the GERC (MYT) Regulations, 2016 provides for annual determination of tariff for Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business for each financial year, within the control period, based on the approved forecast and results of the truing up exercise.

1.6 Admission of the Petition and Public Hearing Process

The Petitioner submitted the current Petition for Truing-up of FY 2017-18, Mid-Term review of ARR for FY 2019-20 to FY 2020-21 and Determination of retail supply tariff for FY 2019-20. After technical validation of the petition, it was registered on 04th December, 2018 (Case No. 1759/2018) and as provided under Regulation 29.1 of the GERC (MYT) Regulations, 2016, the Commission has proceeded with this tariff order.

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

The public notice was issued in the following newspapers on 08th December, 2018 inviting objections / suggestions from its stakeholders on the Mid-Term Review Petition filed by it.

| Sr. No. | Name of Newspaper | Language | Date of Publication |
|---------|--------------------|----------|---------------------|
| 1 | The Indian Express | English | 08.12.2018 |
| 2 | Sandesh | Gujarati | 08.12.2018 |

The petitioner also placed the public notice and the petition on the website (www.ugvcl.com) for inviting objections and suggestions on its petition. The interested



parties/stakeholders were asked to file their objections / suggestions on the petition on or before 07th January,2019.

The Commission also placed the petition and additional details received from the petitioner on its website (www.gerc.in.org) for information and study of all the stakeholders. The Commission also issued a notice for public hearing in the following newspapers in order to solicit wider participation by the stakeholders.

| Sl. No. | Name of the Newspaper | Language | Date of publication |
|---------|-----------------------|----------|---------------------|
| 1 | DNA | English | 01.02.2019 |
| 2 | Gujarat Samachar | Gujarati | 01.02.2019 |
| 3 | Sandesh | Gujarati | 01.02.2019 |

The Commission received objections/suggestions from the consumers/consumer organizations as shown in the Table below. The Commission examined the objections / suggestions received and fixed the date for public hearing for the petition on 07th February, 2019 at the Commission's Office, Gandhinagar, and subsequently a communication was sent to the objectors to take part in the public hearing process for presenting their views in person before the Commission. The public hearing was conducted in the Commission's Office at Gandhinagar as scheduled on the above date. The objectors participated in the public hearing and presented its objections.

The status of stakeholders who submitted their written suggestion / objections, those who remained present in public hearing, those who could not attend the public hearings and those who made oral submissions is given in the Table below:

| Sr. NO. | Name of Stakeholders | Written Submission | Oral Submission | Present on 07.02.2019 |
|---------|---|--------------------|-----------------|-----------------------|
| 1 | Shri Mahavir Jain Aradhana Kendra | YES | NO | NO |
| 2 | Gujarat Krushi Vij Grahak Surakhsya Sangha (GKVKSS) | YES | YES | YES |
| 3 | Gujarat Udvahan Piyat Sahkari Sangh Ltd. | YES | YES | YES |
| 4 | Bharatiya Kisan Sangh | YES | NO | NO |
| 5 | RMG Alloys Steel Ltd. | YES | YES | YES |
| 6 | K.K. Bajaj | YES | YES | YES |
| 7 | Federation of Solar Manufacturers & Intermediaries | YES | YES | YES |
| 8 | Greenko Energies Private Ltd. | YES | NO | NO |
| 9 | Laghu Udyog Bharati - Gujarat | YES | YES | YES |
| 10 | Utility Users Welfare Associations (UUWA) | YES | YES | YES |
| 11 | The Gujarat Dyestuff Manufacturers Associations | YES | YES | YES |
| 12 | GCCI | YES | YES | YES |



| Sr. NO. | Name of Stakeholders | Written Submission | Oral Submission | Present on 07.02.2019 |
|---------|---|--------------------|-----------------|-----------------------|
| 13 | Southern Gujarat Chamber of Commerce & Industries | YES | YES | YES |
| 14 | Akhil Gujarat Grahak Sewa Kendra | YES | NO | NO |
| 15 | R.G.Tillan | No | YES | YES |
| 16 | Rajesh Joshi | No | YES | YES |

The issues raised by the objectors, along with the response of UGVCL and the Commission's views on the response, are dealt with in Chapter 3 of this Order.

1.7 Approach of this Order

The GERC (Multi-Year Tariff) Regulations, 2016 provide for Truing up of the previous year, modification of the ARR for the remaining years of the control period and determination of Tariff for ensuing year for the third Control Period i.e. FY 2016-17 to FY 2020-21.

UGVCL has approached the Commission with the present petition for Truing up of FY 2017-18, Mid-Term review of ARR for FY 2019-20 and FY 2020-21 and determination of retail supply tariff for FY 2019-20.

The Commission has undertaken Truing up for the FY 2017-18, based on the submissions of the Petitioner. The Commission has undertaken the computation of Gain and losses for FY 2017-18, based on the audited annual accounts.

While truing up of FY 2017-18, the Commission has been primarily guided by the following principles:

- Controllable parameters have been considered at the level approved as per the MYT Order, unless the Commission considers that there are valid reasons for revision of the same.
- Uncontrollable parameters have been revised, based on the actual performance observed.

The Truing up for the FY 2017-18 has been considered, based on the GERC (MYT) Regulations, 2011.

Mid-Term review for FY 2019-20 and FY 2020-21 and Determination of Tariff for FY 2019-20 have been considered as per the GERC (Multi-Year Tariff) Regulations, 2016.

1.8 Contents of this Order

The Order is divided into **Ten Chapters** as detailed under:-

1. The **First Chapter** provides a background of the Petitioner, the petition and details of the public hearing process and approach adopted for this Order.
2. The **Second Chapter** provides a summary of the petition.
3. The **Third Chapter** deals with the Public hearing process including the Objections raised by Stakeholders, UGVCL's response and the Commission's views on the response.
4. The **Fourth Chapter** deals with the Truing up for FY 2017-18.
5. The **Fifth Chapter** deals with Mid-Term Review of ARR for FY 2019-20 and FY 2020-21 and
6. The **Sixth Chapter** deals with Determination of retail supply tariff for FY 2019-20.
7. The **Seventh Chapter** deals with compliance of the Directives and issue of fresh directives for UGVCL.
8. The **Eighth Chapter** deals with fuel and power purchase adjustments.
9. The **Ninth Chapter** deals with wheeling and cross subsidy surcharges.
10. The **Tenth Chapter** deals with tariffs for FY 2019-20.

2 Summary of Truing up for FY 2017-18 and Tariff for FY 2019-20

2.1 Introduction

This chapter deals with highlights of the petition as submitted by UGVCL for truing up of FY 2017-18, Mid-Term Review for Aggregate Revenue Requirement for FY 2019-20 and FY 2020-21 and determination of retail supply tariff for FY 2019-20.

2.2 True Up for FY 2017-18

UGVCL submitted the petition on 30th November' 2018 seeking approval of truing up of ARR for FY 2017-18. UGVCL has worked out its Aggregate Revenue Requirement (ARR) for FY 2017-18 as a part of the True Up for FY 2017-18. UGVCL has presented the actual cost components based on audited annual accounts for FY 2017-18. A summary of the proposed ARR for Truing-up of FY 2017-18 compared with the approved ARR for FY 2017-18 in the MYT Order dated 31st March, 2017 is presented in the Table given below:

Table 2-1: ARR proposed by UGVCL for FY 2017-18 True up

| (Rs. Crore) | | | | |
|-------------|--|-----------------------|---------------------|-----------------|
| Sr. No. | Particulars | 2017-18 (Approved) | 2017-18 (Actual) | Deviation |
| 1 | Cost of Power Purchase | 8866.95 | 9004.23 | (137.38) |
| 2 | Operation & Maintenance Expenses | 443.05 | 623.31 | (180.26) |
| 2.1 | Employee Expenses | 423.58 | 531.92 | (108.34) |
| 2.2 | Repairs & Maintenance | 80.50 | 61.36 | 27.14 |
| 2.3 | Administration & General Expenses | 75.69 | 99.22 | (23.53) |
| 2.4 | Other Debits | - | - | - |
| 2.5 | Extra Ordinary Item | - | - | - |
| 2.6 | Net Prior Period Expenses/(Income) | - | - | - |
| 2.7 | Other Expenses Capitalised | (144.72) | (69.19) | (75.53) |
| 3 | Depreciation | 331.74 | 262.25 | 69.49 |
| 4 | Interest & Finance Charges | 136.61 | 127.71 | 8.90 |
| 5 | Interest on Working Capital | - | - | - |
| 6 | Provision for Bad Debts | 0.70 | 0.31 | .39 |
| 7 | Sub-Total [1 to 6] | 9779.05 | 10017.81 | (238.76) |
| 8 | Return on Equity | 181.11 | 179.73 | 1.38 |
| 9 | Provision for Tax/Tax Paid | 17.14 | 14.38 | 2.76 |
| 10 | Total Expenditure [7 to 9] | 9977.30 | 10211.92 | (234.62) |
| 11 | Less: Non-Tariff Income | 146.76 | 138.68 | 8.08 |
| 12 | Aggregate Revenue Requirement [10-11] | 9830.54 | 10073.24 | (242.70) |



2.3 Revenue Surplus/(Gap) for FY 2017-18

The revenue (Gap)/ Surplus of UGVCL for FY 2017-18 has been computed taking into account actual ARR incurred for FY 2017-18 and after treatment of gain/(loss) due to controllable / uncontrollable factors which is computed at Rs. 34.52 Crore as shown in the Table below:

Table 2-2: Revenue Surplus/(Gap) as claimed by UGVCL

| | | (Rs. Crore) |
|---------|--|----------------|
| Sr. No. | Particulars | Amount |
| 1 | Aggregate Revenue Requirement originally approved for 2017-18 | 9830.54 |
| 2 | Gain / (Loss) on account of Uncontrollable factors to be passed on to consumer | (314.79) |
| 3 | Gain / (Loss) on account of Controllable factors to be passed on to consumer (1/3rd of Total Gain /Loss) | 24.03 |
| 4 | Revenue (Gap)/Surplus from True-up of FY 2015-16 | 126.99 |
| 5 | Revised ARR for FY 2017-18 (1-2-3-4) | 9994.31 |
| 6 | Revenue from Sale of Power | 9129.81 |
| 7 | Other Income (Consumer related) | 256.74 |
| 8 | Agriculture subsidy | 542.26 |
| 9 | GUVNL Profit / (Loss) allocation | 30.98 |
| 10 | Total Revenue including Subsidy (6+7+8+9) | 9959.79 |
| 11 | Revised Surplus/(Gap) after treating Gain/(Loss) due to Controllable/ Uncontrollable factors (10-5) | (34.52) |

The above revenue Surplus/(Gap) arising based on the true up for FY 2017-18 mentioned above shall be added in the ARR for the FY 2019-20.

2.4 Mid-Term Review for FY 2019-20 and FY 2020-21

The comparison of revised projections for FY 2019-20 and FY 2020-21 in the Mid-Term Review Vis-a-Vis the costs approved by the Commission in the MYT Order dated 31st March, 2017 as shown in the Table below:

Table 2-3: Mid-Term Review for FY 2019-20 and FY 2020-21 as projected by UGVCL

| | | (Rs. Crore) | | | |
|---------|-----------------------------------|---------------------------------------|----------------------------------|---------------------------------------|----------------------------------|
| Sr. No. | Particulars | 2019-20 (Approved in MYT Order) | 2019-20 (Projected in MTR) | 2020-21 (Approved in MYT Order) | 2020-21 (Projected in MTR) |
| 1 | Cost of Power Purchase | 9760.79 | 11156.97 | 10499.76 | 11835.84 |
| 2 | Operations & Maintenance Expenses | 495.19 | 840.71 | 523.51 | 942.07 |
| 2.1 | Employee Cost | 473.43 | 734.53 | 500.51 | 829.82 |
| 2.2 | Repair & Maintenance | 98.91 | 98.91 | 104.57 | 104.57 |
| 2.3 | Administration & General Charges | 84.60 | 84.60 | 89.44 | 89.44 |
| 2.4 | Other Debits | - | - | - | - |
| 2.5 | Extraordinary Items | - | - | - | - |



| Sr. No. | Particulars | 2019-20 (Approved in MYT Order) | 2019-20 (Projected in MTR) | 2020-21 (Approved in MYT Order) | 2020-21 (Projected in MTR) |
|-----------|--|---------------------------------------|----------------------------------|---------------------------------------|----------------------------------|
| 2.6 | Net Prior Period Expenses / (Income) | - | - | - | - |
| 2.7 | Other Expenses Capitalised | (161.75) | (77.33) | (171) | (81.76) |
| 3 | Depreciation | 399.19 | 248.47 | 427.81 | 273.65 |
| 4 | Interest & Finance Charges | 140.89 | 189.21 | 139.64 | 201.94 |
| 5 | Interest on Working Capital | - | - | - | - |
| 6 | Provision for Bad Debts | 0.70 | 0.31 | 0.70 | 0.31 |
| 7 | Sub-Total [1 to 6] | 10796.76 | 12435.67 | 11591.42 | 13253.82 |
| 8 | Return on Equity | 212.51 | 215.36 | 226.97 | 231.86 |
| 9 | Provision for Tax / Tax Paid | 17.14 | 14.38 | 17.14 | 14.38 |
| 10 | Total Expenditure (7 to 9) | 11026.41 | 12665.41 | 11835.53 | 13500.06 |
| 11 | Less: Non-Tariff Income | 146.76 | 138.68 | 146.76 | 138.68 |
| 12 | Aggregate Revenue Requirement (10 - 11) | 10879.65 | 12526.72 | 11688.77 | 13361.38 |

2.5 Request of UGVCL

1. To admit this Petition seeking True up of FY 2017-18, Mid-Term Review of ARR for FY 2019-20 to FY 2020-21 and Determination of Tariff for FY 2019-20.
2. To approve the True up for FY 2017-18 and allow sharing of Gain/(Loss) with the Consumers as per sharing mechanism prescribed in the GERC (MYT) Regulations, 2016.
3. To approve Mid-Term Review of ARR for FY 2019-20 to FY 2020-21 as per GERC (MYT) Regulations 2016.
4. To consider approved True up parameters & Multi-Year ARR of GSECL, GETCO and SLDC while finalizing Tariff of the Petitioner.
5. To approve the terms and conditions of Tariff for FY 2019-20 and various other matters as proposed in this petition and proposed changes therein.
6. Pass suitable orders for implementation of Tariff Proposal for FY 2019-20 for making it applicable from 1st April, 2019 onwards.
7. To grant any other relief as the Commission may consider appropriate.
8. The Petitioner craves leave of the Commission to allow further submissions, addition and alteration to this Petition as may be necessary from time to time.
9. Pass any other order as the Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

3 Brief outline of objections raised, response from UGVCL and the Commission's View

3.1 Stakeholders' suggestions / objections, Petitioner's Response and Commission's observation

In response to the public notice, inviting objections/ suggestions of the stakeholders on the petitions filed by DISCOMs for truing up of FY 2017-18, Mid-Term Review of FY 2019-20 and FY 2020-21 and determination of tariff for FY 2019-20, a number of consumers/ consumer organisations filed their objections/ suggestions within the prescribed timeline. Some of these objectors participated in the public hearing also. Further, some of the objections are general in nature and some are specific to the proposals submitted by the petitioner. It is also noted that many of the objections/ suggestions are common to all the four DISCOMs and some are specific to concerned DISCOM. The objections/ suggestions connected with the current petition are segregated into two groups viz. common to all DISCOMs and specific to concerned DISCOM. The Commission, has, therefore, addressed the objections/ suggestions issue-wise rather than objector-wise.

3.2 Suggestions/Objections Common to all DISCOMs

1. Supply of water to the Bricks manufacturers should be removed from Agriculture.

The Objector stated that supply of water to the Bricks manufacturers under the head of Agriculture category should be removed.

Response of the Petitioners:

Supply to Bricks Manufactures by an Agriculture consumer is an optional facility and an Ag consumer can opt for it if he desires. This is not a compulsory requirement.

Commission's view:

The Commission has noted the response of the Petitioners which is self explanatory.

2. Quantum and Quality of supply to Agriculture and Supply Hours to Agriculture

The objector sought information on quantum of power supply given to Agriculture Consumers and hours of such power supply. Issue of quality power supply to Agriculture Consumers is also raised.

Response of the Petitioners:

Petitioners submitted that minimum Average eight hours power supply is provided to agriculture sector. Further, a policy related to power supply to agriculture sector has also been formulated by Gujarat Urja Vikas Nigam Ltd as per guidelines from GoG for uniform power supply to agriculture sector in the State and DISCOMs have been implementing the same by ensuring minimum average eight hours 3 phase power supply to agriculture sector. Moreover, during cropping seasons as per the requirement in order to save standing crops, more than 8 hours of power supply is also provided to agriculture sector. In case power supply to Ag Sector is given less than 8hrs during the day due to technical constraints related issues in that case the shortfall in power supply of previous day is compensated during the subsequent period. It is the endeavor of the Distribution Companies to provide the quality power and best possible services well within the time limits specified in Regulations.

Commission's view:

The Commission has always emphasised on providing quality power supply and is of view that Petitioners should take every measure to deliver quality power supply.

3. Un-realistic Projections of demand

The Objector stated that projections are un-realistic for estimating demand of consumers.

Response of the Petitioners:

Petitioners submitted that it estimated Sales, No. of consumers and Connected load based on the growth rates in the past and sale to agriculture metered category are projected based on methodology done in past. This has been done as per Tariff Regulation notified by the Commission

Commission's view:

The Commission has carried out the Mid-Term Review after due diligence and prudence check.

4. Bad Debt accounts:

The objector sought information on bad and doubtful debts written off.

Response of the Petitioners:

Petitioners submitted that every Year, certain billing amount of some consumers are ascertained to be non recoverable and is charged in P&L of the Company under the head of other debits for the respective year.

Commission's view:

The Commission has approved the actual Bad and Doubtful Debts written off in accordance with the provision of the GERC (MYT) Regulations, 2016.

5. Overload Feeders:

The objector sought information on overloaded feeders.

Response of the Petitioners:

Loading on any of the feeder is highly dynamic phenomena. However, feeders having either more length or found to be overloaded on sustained basis are bifurcated on priority. Information on Nos. of Feeders bifurcated during last three years and proposed to be bifurcated during rest of the period of 2018-19 is provided along with expenditure details.

Commission's view:

The Commission is of the view that adequate planning is to be carried out for load management in accordance with provisions of the GERC Distribution Code, 2004, so that overload condition of the feeders is avoided.

6. Reduction in HP Based tariff and special sub-category for AG consumers

The Objector requested for reduction of tariff for HP based tariff category consumers. It is also requested for introduction of new special sub category for Agriculture Consumers and/ or grant relief to the farmers, who accept in a group of entire feeder, the metered tariff.

Response of the Petitioners:

The National Tariff Policy mentions to have rationalization of tariff of various consumer categories such that it is more aligned to the cost of supply and in a band of +/-20 % to the average cost of supply. In order to ensure uniform tariff rates for all four State



Owned DISCOMs, differential bulk supply tariff mechanism is in place. Average recovery from agriculture category consumers is much less than average cost of supply.

The present tariff of agriculture is highly subsidized and hence further categorization is not appropriate.

Commission's view:

Agriculture consumers category is a highly subsidized category. The Commission while determining tariff emphasizes to maintain balance between subsidized category and subsidizing category.

7. Concessional tariff to the micro-irrigation system

The Objector requested for introduction of a special concessional tariff rate for individual farmer adopting Micro irrigation systems.

Response of the Petitioners:

Irrigation to agricultural field through micro/drip irrigation system requires less energy consumption compared with normal mode of irrigation. Thus such agriculture consumers are automatically benefitted. Giving benefit to one class of consumer will result into increase in tariff of other class of consumers.

Commission's view:

The Commission noted the response of the Petitioners which is self-explanatory.

8. Abolition of Tatkal Scheme:

The Objector requested for abolition of Tatkal Scheme.

Response of the Petitioners:

The Petitioner had filed Petition No. 1087/2011 on the said issue and the Commission has disposed of the petition.

Commission's view:

The Commission has no role to play in this matter as the scheme is introduced by the State Government.

9. Discontinuation of Energy Efficient Pump Set scheme

The Objector requested to restart Energy Efficient Pump Set scheme.

Response of the Petitioners:

Efficient utilization of electrical energy helps in less energy consumption for the same quantum of work. This phenomenon is equally applicable to the agricultural consumers. A demonstrative project was undertaken by replacing old pump sets with efficient pump sets. If the metered agricultural consumer installs energy efficient pump set, energy consumption as well as energy bill can be reduced.

Commission's view:

The Energy Efficient Pump Set scheme is in place in the area of PGVCL under Demand Side Management Programme was introduced by PGVCL. It is experienced that consumers are not coming forward to avail the benefits of this scheme. The objector being a consumers organisation should make the consumers aware about benefits of the said scheme by opting it.

10. Clarification in LTP-V Tariff Category:

The Objector requested for clarification in LTP – V Tariff Category.

Response of the Petitioners:

LTP-V tariff category is to incentivize use of surface water sources such as river, canal, dam etc. and supplying water directly to the field of farmers for irrigation only. Further this is to motivate the farmers for utilization of surface water and thereby to promote energy and water conservation particularly for the consumers in the command area of Sardar Sarovar project area and such other mini irrigation system. Mainly such projects or system requires 24 hours power supply and therefore a separate tariff category is provided. Since specific tariff is provided for surface water irrigation, the same cannot be extended for filling up the 'houze' etc. prepared in farm for water collection

Commission's view:

Th response of the Petitioners is self explanatory.

11. Introduction of new Tariff Categories

The Objector suggested to introduce new tariff categories for luxury purpose, amusement purpose and entertainment purpose.

Response of the Petitioners:

No response is submitted by the Petitioners.

Commission's view:

The Commission determines the tariff in accordance with provisions of the Electricity Act, 2003 which provides that no undue preferences to any consumer of electricity will be shown while determining the tariff.

12. Not to approve FPPPA

The Objector requested not to allow any interim extra charges by way of FPPPA in between the year.

Response of the Petitioners:

The basic nature of FPPPA/PPPA is 'adjustment' related to power purchase cost i.e. pass through of increase or decrease, as the case may be, in the power purchase cost over the base power purchase cost. The PPPA charge is being levied on the consumer categories on account of the change in the cost of power purchase, which comprises almost 85 to 93% of the Distribution Licensee's Aggregate Revenue Requirement. Any expense pertaining to the regulated business of the Distribution Licensee has to be recovered from all consumers in some manner; therefore the PPPA charges are recovered in the form of an incremental energy charge (Rs/kwh) recovered as per formulae approved by the Commission.

Commission's view:

The cost of Power Purchase varies with variation in the cost of coal freight and other energy sources which is recovered through FPPPA charges. If such FPPPA revisions are not carried out on quarterly basis, huge burden will get imposed on the consumers at the time of truing up.

13. Restrict supply of electricity to non-productive activity

The power supply should be restricted for day and night cricket matches and other non productive activities, until all pending Agri. connections are released.

Response of the Petitioners:

No response is furnished by Petitioners.

Commission's view:

The DISCOMs cannot differentiate amongst the class of consumers.

14. Transmission and Distribution losses

The Objector stated that Distribution Loss and Transmission should be restricted up to 9% and 1.0% respectively. T & D Loss to be restricted up to 10.00 % and above that no loss to be passed on the consumers.

Distribution Losses are being controlled by

- (i) Reducing the Supply Hours from 16 To 8
- (ii) Sufficient Rain Fall

Feeder Management system has totally failed. Post of Feeder Managers should be totally free from the routine work. No sincere efforts have been made towards reduction of Technical losses.

Response of the Petitioners:

The Commission has approved distribution loss trajectory for the entire MYT control period from FY 2016-17 to FY 2020-21. Except PGCVCL, other three DISCOMs have projected same distribution losses as approved by the Commission in MYT Order dated 31.03.2017, while PGCVCL has projected lower distribution losses in the Mid-Term Review than approved in the MYT Order dated 31.03.2017. Distribution losses being controllable factor, the Petitioners have given appropriate treatment to the deviation from approved loss in the true up petition for FY 2017-18. It is also submitted that as Transmission losses are beyond the control of Distribution Company, the actual transmission losses are considered by the Petitioners.

Commission's view:

While appreciating the efforts made by the Petitioners in achieving loss reduction up to target level, the Commission is of the view that sustained and concerted efforts should be continued to further reduce the losses than the approved in the MYT Order dated 31.03.2017.

15. Power purchase ceiling rate

The ceiling rate of power purchase during the year has to be decided along with Tariff.

Response of the Petitioners:

No response is furnished.

Commission's view:

The Commission approves base power purchase cost. Any variation in power purchase cost due to variation in cost of coal/ other energy sources is recovered through FPPPA charges to avoid tariff burden at the time of truing up. However, at this time of true up, the Commission examines the purchase cost on prudent basis and as per Regulations.

16. Remove the row of Interest on Working Capital from ARR Table and consider Return on Equity at 12%

The Interest on working Capital is not grantable and the row to be removed from ARR format. It is also stated that the ROE at 14% is too high. It should be reconsidered and reduced to 12%.

Response of the Petitioners:

In true up petition for FY 2017-18, no claim for Interest on working capital is proposed and RoE is worked out as per the GERC (MYT) Regulations, 2016.

Commission's view:

As the Petitioners have huge amount of Security Deposit with them, which they use for Working Capital requirement the Working Capital requirement works out to be negative and accordingly, interest on Working Capital is not claimed by the Petitioners and approved as NIL by the Commission. Further, RoE is approved as per provisions of the GERC (MYT) Regulations, 2016.

17. High projection of Power Purchase Cost

The projection of power purchase cost is too high and Merit Order not being implemented and monitored.

Response of the Petitioners:

No response is furnished.

Commission's view:

The Commission has after due diligence approved the Power Purchase Cost for FY 2019-20 and 2020-21 considering actual fixed and variable cost of FY 2017-18. The issue is discussed in the relevant section of Chapter 5 of this Order.

18. Agriculture Subsidy

The Budgetary provision for Agriculture Subsidy is stagnant at Rs. 1100/- Crores from years and not increased to match with Nos. of Agri. Consumers in the State. It must be at least Rs. 5000/- Crores.

Response of the Petitioners:

No response is furnished.

Commission's view:

Subsidy to agriculture consumers is provided by Government of Gujarat and not decided by the Commission.

19. Large number of pending meters for replacement

There are still 1.50 Lacs meters under non-working conditions, Detailed status report is required to be submitted with reasons.

Response of the Petitioners:

Petitioners have submitted status of meters replaced.

Commission's view:

The Commission has already provided directive to Distribution Utilities to adhere to the time lines specified in the GERC (SoP) Regulations, 2005 for replacement of faulty meters.

20. Abolish Fixed Charges for Agriculture and Residential consumers

The Fixed charges on Agriculture and Residential consumers is required to be abolished totally.

Response of the Petitioners:

It is a basic commercial principle for any organization to recover its fixed costs through recovery of fixed charges. In case of DISCOMs even with the proposed tariff, only 36 % fixed cost is recovered through fixed charges. Therefore it is not possible for DISCOMs to abolish fixed charges

Commission's view:

The Commission noted the response of the Petitioners and agrees with the response.

21. Directives of the Commission not fulfilled

The directives of the Commission are not complied as feeder bifurcation work is unsatisfactory, distribution transformer centre review work is reduced, conductor replacement work is reduced, HVDS is not satisfactory and erection work under KHUSHY scheme is poor.

Response of the Petitioners:

The compliance of directive is submitted to the Commission from time to time. Actual expenditure incurred under various schemes vis-à-vis approved by the Commission is provided in the petition.

Commission's view:

The compliance of directives is discussed in detail in Chapter 7 of this Order where the Commission's observation on the compliance is also deliberated in the said Chapter 7.

22. Distribution losses on JGY feeders

The distribution losses on JGY feeders remain uncontrolled and a separate status report is required for work done, expenses and output, results.

Response of the Petitioners:

Petitioners have furnished various activities carried out for loss reduction in JGY feeders.

Commission's view:

The Commission is of the view that thorough energy audit need to be carried out on JGY feeders having higher distribution losses as per the directives issued in previous tariff orders and as discussed during previous meetings of Co-ordination Forum.

23. Distribution Transformer Failure rate

The Distribution Transformer Failure rate is not mentioned.

Response of the Petitioners:

Distribution Transformer Failure Rate is submitted.

Commission's view:

DISCOMs are furnishing quarterly data on Distribution Transformer failure as a part of reports on SoP which are available on the Commission's website.

24. Information on agriculture connections to be released under Normal scheme and Dark Zone scheme

The projections are not made for agriculture connections to be released under Normal scheme and Dark Zone area scheme.

Response of the Petitioners:

Releasing of connections is an on-going task and every year agriculture connections are released under various schemes like Normal, Tatkal, etc. Information on agriculture connections released is provided.

Commission's view:

The response of the Petitioners is self explanatory.

25. Incomplete Consumer Charter

The Consumer Charter related to agriculture consumers does not specify maximum waiting period after registration of agriculture connection application.

Response of the Petitioners:

The consumer charter is prepared for all categories of consumers including agriculture consumers.

Commission's view:

The Commission noted the objection of the Objector and the response of the Petitioners.

26. Demand for establishing new administrative offices

The demand for creation of new administrative offices is pending since long.

Response of the Petitioners:

The administrative offices are created for convenience of administration for the Petitioners as well as the consumers. Petitioners are creating new offices as per the requirement.

Commission's view:

The Commission noted the objection of the Objector and response of the Petitioners..

27. To show FPPPA & PPA charges separately

The Objector requested to separate FPPPA charges and mention fuel Charges and Power Purchase charges separately.

Response of the Petitioners:

The Commission has approved the FPPPA formula through its order dated 29.10.2013 and accordingly any incremental power purchase cost compared to base year power purchase cost would be a Power Purchase Price Adjustment only.

Commission's view:

The Commission noted the response of the Petitioners and is in agreement with the same.

28. Prompt Payment Discount

The prompt payment discount @1% is not implemented by DISCOMs and the word "may be" be replaced by "must be".

Response of the Petitioners:

The expenses of prompt payment discount is to be borne by the DISCOMs and considering present bank interest rate and liquidity of DISCOMs, it is not possible for DISCOMs to offer such discount for early payment of bills just three days before the end of grace period of ten days and therefore, it should be left to the discretion of DISCOMs.

Commission's view:

The Commission, after careful consideration, has decided to delete the provision of Prompt Payment Discount from the Tariff Schedule to avoid confusion.

29. Not to increase Tariff

The objector requested not to increase electricity tariff.

Response of the Petitioner:

The petition is filed for Truing up of FY 2017-18, Mid-Term Review of FY 2019-20 and FY 2020-21 and Determination of Tariff for FY 2019-20. No tariff increase has been sought.

Commission's view:

The Commission, after due diligence and prudence check of financials and submission of Petitioners, has made certain decisions which are deliberated in Chapter 9 of this Order.

30. Tariff of LTP – V and HTP – V category

The objector requested to keep the Tariff for HTP V/LTP V at par with normal Agriculture Tariff.

Response of the Petitioners:

The consumers of LTP-V/HTP-V category are provided with 24 hours power supply while agriculture consumers are being provided 8 hours power supply on rotation basis. As the hours of power supply are different for these categories of consumers, it is not viable to keep tariff rate same.

Commission's view:

The issue is discussed in detail in Chapter 10 of this Order.

31. One tariff for all Agriculture Consumers

The objector stated that there should be only one tariff for all the Agriculture consumers

Response of the Petitioners:

The tariff rates are decided by the Commission. Prior to year 2001, agriculture consumers were supplied power without meter. After the year 2001, power supply to agriculture consumers is supplied with meter and accordingly, electricity bill is prepared based on readings. Agriculture consumers who are supplied power without meters are charged based on their contracted demand and such consumers are considered under A-1 category.

Further, agriculture connections are provided under Normal scheme and Tatkal scheme. Estimates provided under Normal scheme and Tatkal scheme are also different and tariff rates for agriculture connections under Normal scheme and Tatkal scheme are different as decided by the Commission. Agriculture connections provided under Normal scheme are considered under A-2 category while agriculture connections provided under Tatkal scheme are considered under A-3 category. Further, the consumers under Tatkal scheme shall be eligible for normal metered tariff on completion of five years period from the date of commencement of supply.

Commission's view:

The Commission has noted the objection of the Objector and the response of the Petitioners.

32. Reduction in flat rate tariff for agriculture consumers

The Objector requested to reduce flat rate tariff for agriculture consumers to Rs. 500/HP/year.

Response of the Petitioners:

As per Tariff Policy, tariff should be within range of +/- 20% of cost to serve and therefore, it is not viable to provide any more concession to agriculture consumers.

Commission's view:

The Commission noted the response of the Petitioners which is self-explanatory.

33. Special dispensation in the tariff to sick industrial units

Sick industrial units should be provided with special dispensation in the tariff at maximum Rs. 4.40 per unit (including all charges but not limited to demand charges, Time of Use Charge (TOU), Fuel Surcharge, Energy Charges, Meter Charges, P.F. adjustment/rebate charges, Security Deposit for additional Load etc.). Sick units should also be given relief to pay cross subsidy (at present it is Rs. 2.51/unit)

Response of the Petitioners:

Pursuant to letter dated 16.1.2019 & 31.1.2019 from Energy & Petrochemicals Dept., Govt of Gujarat, the Company has filed a supplementary submission before the Commission for deciding flat rate tariff in-between Rs 4.40 per Unit and Cost to Serve for viable Sick industry provided their ARR is protected.

Commission's view:

This issue is being dealt with separately by the Commission in the petition filed by the Objector.

34. Separate Tariff for each Distribution Company

Determination of separate tariff for each of the State owned Distribution Utility considering different distribution loss of four State Owned Distribution Utilities.

Response of the Petitioners:

Uniform retail supply tariff for all four DISCOMs (Unbundled entities of erstwhile GEB) has been envisaged so that consumer in the similar categories in the State could have

similar tariff and there may not be any discrimination, which is also one of the objectives of the EA 2003.

The four Distribution Companies are incorporated on the basis of zonal configuration. Since the 80% - 90% of the total cost incurred by DISCOMs is for Power Purchase, the same plays a major role in determining the Annual Revenue Requirement as well as Gap / (Surplus) for the DISCOM for a particular year. Since the consumer profile and consumption profiles are different in the four Distribution Companies, the revenue earning capabilities of each of the DISCOMs differs resulting in different Annual Revenue Requirement.

Therefore, it is necessary to build a mechanism to bring them to a level playing field. This is achieved through differential Bulk Supply tariff (BST) to each of the DISCOMs which is approved in the MYT Order. In this way, it becomes possible to ensure uniform retail consumer tariffs in the four DISCOMs. Moreover, performance of all the Distribution Companies is monitored by the Commission and accordingly Distributions Loss is approved by the Commission.

Commission's view:

Response of the Petitioners is self-explanatory.

35. Additional higher consumption slab for Residential Consumers

Introduction of higher consumption slab of above 400 units per month for residential consumers and to remove existing slab of 200 -250 which has tariff difference of 10 Paise /unit only.

Response of the Petitioners:

Tariff structure of the different States are designed keeping in mind the different social, economic, technical, demographic and other relevant parameters specific to the state. The Commission has been time to time reviewing the Tariff structure and rationalizing the tariff. However, any change in the tariff structure may be revenue neutral.

Commission's view:

The Commission has taken appropriate decision regarding this in the Tariff Philosophy chapter of this Order.

36. Non-submission of performance parameters

Only financial performance has been submitted by the Petitioners while other performance parameters are not submitted.

Response of the Petitioners:

Petitioners have submitted requisite performance details.

Commission's view:

The Commission timely reviews performance of Petitioners through data submitted as part of SoP Reports and RIMs reports and necessary directives are also issued in case performance is not found satisfactory. Further, during meetings of State Advisory Committee and State Co-Ordination Forum, such performance parameters are deliberated. Minutes of the said Meetings along with SoP and RIMs reports are available on the Commission's website.

37. Review of Performance during 2017-18

Revenue Gap and distribution losses of PGVCL out of four Petitioners are highest during 2017-18. It is requested to not to approve any parameter which is above the limit of approved parameters.

Response of the Petitioner:

Various steps are taken for reduction of distribution losses and all efforts are being made to achieve further reduction in distribution losses. Petitioner endeavours to achieve the loss reduction trajectory as approved by the Commission.

Commission's view:

The Commission appreciates the efforts being made by the Petitioners in achieving the target of loss reduction. However, loss reduction activity being continuous, sustained and concerted efforts should be made to reduce the losses in coming years also.

All the four Distribution Companies are catering to different mix of consumers having different characteristics of geographical area. Comparing losses of one DISCOM with another is not appropriate. Instead, comparison of current year's performance in loss reduction activities with that of previous years is more appropriate.

38. 30% increase in employee cost during FY 2017-18

In spite of increase of 30% in the employee cost no improvement is seen in the quality of power and services to the consumers. The Commission should direct the Petitioners to reduce their cost by reducing manpower.

Response of the Petitioners:

Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of gratuity and leave encashment and staff welfare expenses. The increase in employee cost is purely statutory increase on the basis of the guidelines issued by competent authorities like the State Government. Hence, the entire expenditure is a legitimate expenditure and variation is purely beyond its control.

Commission's view:

The Commission in the true up orders of previous year did not consider provision made for salary increase on account of 7th Pay Commission Order and decided to consider Pay revision at the time of actual pay out. Accordingly, the Commission has considered the impact of actual pay out of 7th Pay Commission Order.

39. Increase in Power purchase cost:

The Petitioners have procured power at higher rate due to non-availability of power from the IPPs.

Response of the Petitioners:

The power is procured from different sources during FY 2017-18 following Merit Order Principle only. The variation in the actual viz-a-viz approved power purchase expenses is on account of various factors such as variation in the fuel cost, variation in the power purchase mix due to operation of merit order principle and availability of generating stations, variation in the quantum of power purchased due to variation in demand during the year as well as variation in the T & D losses in the system.

Commission's view:

The response of the Petitioner is self-explanatory. However, a separate study on principles of Merit Order Despatch was conducted and no discrepancies were found in MoD. The said report was made available to the consumers.

40. Over recovery of FPPPA

The Petitioners are collecting Rs. 990 Crores from consumers by increasing power purchase cost by 12 Paise and FPPPA by 14 Paise per unit. The collection of additional Rs. 990 Crores amounts to increase in tariff by 11 per cent per unit. The Objector requested to merge Rs. 1.00 of FPPPA charges into tariff slabs and revise the base FPPPA.

Response of the Petitioners:

The basic nature of FPPPA/PPPA is 'adjustment' related to power purchase cost i.e. pass through of increase or decrease, as the case may be, in the power purchase cost over the base power purchase cost. The PPPA charge is being levied on account of change in the cost of power purchase, which comprises almost 85% to 93% of the Distribution Licensee's Aggregate Revenue Requirement. Any expense pertaining to the regulated business of the Distribution Licensee has to be recovered from all consumers; therefore, the PPPA charges are recovered in the form of an incremental energy charge (Rs/kwh) recovered as per formulae approved by the Commission and as per directives of the Commission.

Commission's view:

As explained by the Petitioners, incremental power purchase cost over the base power purchase cost is to be recovered through FPPPA charges over and above the base FPPPA charges (i.e. Rs. 1.43/unit for FY 2017-18). Detailed clarification has been provided in past years Tariff Orders and also in the Chapter 8 of this Order.

41. Revenue Gap of four DISCOMs for 2019-20

The Petitioners have submitted a deficit of nearly Rs. 1677 Crores to be met from subsidy receivable from Government. The Petitioners have not demanded any increase in tariff for any category of consumers. But there is indirect increase of Rs. 0.11 per unit by increasing base price of PPC and FPPPA charges, which is not justified.

Response of the Petitioners:

In the True up Order for FY 2016-17 dated 31st March, 2018, the Commission has considered the base power purchase cost at Rs. 4.72/unit and base FPPPA at Rs.

1.49/unit. As per approved FPPPA formula, any increase in power purchase cost during the year over and above base power purchase cost of Rs. 4.27/unit is to be recovered through FPPPA over and above base FPPPA of Rs. 1.49/unit on quarterly basis. As per projected ARR for FY 2019-20, the weighted average power purchase cost is worked out to Rs.4.34/unit as against earlier approved base power purchase cost of Rs. 4.22/unit. Thus, the incremental power purchase cost of Rs. 0.12/unit for FY 2019-20 (i.e. Rs. 4.34 - 4.22) will be recovered through FPPPA over and above base FPPPA of Rs. 1.49/unit. Therefore, estimated revenue from FPPPA for FY 2019-20 is considered at Rs. 1.63/unit for FY 2019-20 (i.e. grossing up by approved losses) and accordingly revenue gap has been worked out.

Commissions' view:

As explained by the Petitioners, incremental power purchase cost over the base power purchase cost is to be recovered through FPPPA charges over and above the base FPPPA charges (i.e. Rs. 1.49/unit for FY 2017-18). Detailed clarification has been provided in past years Tariff Orders and also in the Chapter 8 of this Order.

42. Reduction in Electricity Duty in Gujarat:

The Objector has requested for rationalization of Electricity Duty which is highest in Gujarat for few categories. It is requested to reduce the Electricity Duty for Residential, Commercial consumers by 5% each and for HT industrial consumers by 2.5%.

Response of the Petitioners:

Electricity Duty is being levied as per the provisions of the Electricity Duty Act.

Commission's view:

Electricity Duty is the subject matter of the State Government.

43. Submission of Average Power Purchase Cost

The Petitioner should submit the "Average Power Purchase Cost" (APPC) for the year 2017-18 applicable to the solar project commissioned in FY 2018- 19 along with detailed calculation.

Response of the Petitioners:

The issue is not relevant to the present petition.

Commission's view:

The Petitioner's response is self-explanatory.

44. Submission of details on source wise planning to purchase power from renewable sources

The Petitioner should submit the detail source wise planning to purchase power from renewable energy source to comply with the relevant Regulations.

Response of the Petitioners:

The issue is not relevant to the present petition.

Commission's view:

The Commission is of view that the issue of source wise planning to purchase power from renewable sources of energy to meet RPO obligation is very much relevant to this petition and the Petitioners should have responded in this regard. In this petition, the Petitioners have furnished source wise planning of purchase of power for FY 2019-20 and FY 2020-21 in the Power Purchase Cost section. The Commission has considered quantity of purchase of power from renewable sources in accordance with RPO targets fixed by the Commission.

45. Encourage Investment in the State to achieve the Renewable energy target

The State Government can notify a policy to encourage investment in the State by allowing setting up of generating plants, including from renewable energy sources out of which a maximum of 35% of the installed capacity can be procured by the Distribution Licensees of that State for which the tariff may be determined under Section 62 of the Electricity Act, 2003.

Response of the Petitioners:

The issue is not relevant to the present petition.

Commission's view:

It is prerogative of the State Government to notify policies to encourage investment in renewable energy sources.

46. To allow 100% of contract demand for rooftop solar for HT consumers

The objector requested to allow 100 % of capacity for rooftop Solar with reference to contract demand for HT consumers, out of total generation 25 to 35 % generation may

be retained by DISCOM to meet its RPO Target at a Preferential tariff or may be decided by the Commission.

Response of the Petitioners:

The issue is not relevant to the present petition.

Commissions' view:

The response of the Petitioner is self-explanatory.

47. Procure power from renewable energy sources through competitive bidding

State shall endeavor to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants.

Response of the Petitioners:

The issue is not relevant to the present petition.

Commissions' view:

GUVNL has already started procuring renewable energy power through competitive bidding for four State Owned DISCOMs.

48. To Allow RESCO in rooftop Solar

Allow RESCO in rooftop solar.

Response of the Petitioners:

The issue is not relevant to the present petition.,

Commissions' view:

Not to allow RESCO model in GERC (Net Metering Rooftop Solar PV Grid Interactive Systems) Regulations, 2016 was a decision taken after deliberations and inviting comments/ suggestion from the stakeholders. However, the Commission is of the view that this matter is not a part of this Tariff petition.

49. Innovative Ideas

The Commission should direct the Petitioners to come with some innovative ideas in the national interest to protect environment as well as for the benefit of consumers.

Response of the Petitioners:

This issue is not relevant to the present petition.

Commissions' view:

The response of the Petitioner is self-explanatory.

50. To install Rooftop solar at Client's premises on lease basis.

The objector suggested that Solar EPC companies install rooftop solar at client's premises on lease basis and DISCOM will collect EMI to reimburse to EPC Company with certain service charge. The Commission may issue the guideline in this regard

Response of the Petitioners:

The issue is not relevant to the present petition.,

Commissions' view:

The Commission noted the objection of the Objector. The Commission is of the view that this matter may be dealt separately and not as a part of this Tariff petition.

51. GUVNL to remain present during hearing on Tariff Petitions

The GUVNL representatives should remain present during hearing on Tariff Petitions.

Response of the Petitioners:

GUVNL is co-petitioner of the petitions filed.

Commission's view:

GUVNL representatives, as a Co-petitioner or otherwise, have always remained present during the hearing to satisfy the queries of the stakeholders.

52. Power Purchase

The Petitioners have procured more power than demand.

Response of the Petitioners:

Power purchase on behalf of all four Discoms is undertaken by GUVNL on the basis of requirement of each Discom. In the process, the surplus power is sold by GUVNL on behalf of DISCOMs and proceeds from the sale are passed on to Discom which ultimately pass on to general mass of consumers.

Commission's view:

For the Petitioners to procure power only as per demand of the consumers is difficult considering the fact that it is not possible to predict exact demand of the consumers. Further, the Petitioners have to supply power 24x7x365 to consumers as per provisions of the Electricity Act, 2003. The revenue from sale of power to GUVNL is reduced from the power purchase cost and thus consumers are given benefit out of the revenue earned from sale of power by GUVNL.

53. Subsidies not accounted in the Annual Accounts

The Agriculture tariff subsidies, FPPPA and water works subsidies are not accounted in Annual Financial Reports. This great financial irregularity need to be corrected.

Response of the Petitioners:

As per the tariff order of the Commission, FPPPA charge is a part of tariff. In case of Agricultural consumers, the FPPPA charges payable by the Agriculture consumers is not recovered from the consumers but it is being compensated by State Government. Revenue received from Agriculture consumers is mentioned in the Annual Accounts of the Petitioners for FY 2017-18 which is inclusive of FPPPA subsidy and the subsidy for tariff compensation from Government for FY 2017-18, as tabulated below;

| DISCOM | Note No. | FPPPA subsidy (Rs. Crore) | Subsidy for tariff compensation (Rs. Crore) |
|---------------|-----------------|----------------------------------|--|
| DGVCL | 49 | 75.16 | 42.15 |
| PGVCL | 29 | 672.87 | 442.31 |
| MGVCL | 30 | 114.38 | 48.52 |
| UGVCL | 29 | 837.58 | 602.79 |

Similarly, Subsidy received from the State Government towards the Water Works connections is also mentioned in the Annual Accounts as shown below:

| DISCOM | Note No. | Subsidy towards Water Works Connections (Rs. Crore) |
|---------------|-----------------|--|
| DGVCL | 49 | 37.21 |
| PGVCL | 29 | 181.52 |
| MGVCL | 30 | 46.80 |
| UGVCL | 29 | 134.46 |

It may be noted that FPPPA subsidy received from State Government and subsidy for the Water Works connections have been duly considered in the Revenue from Sale of Power for respective category of consumers both in Annual Accounts of the Company and also in the True up proposal.

Commission's view:

The response of the Petitioners is self-explanatory.

54. Basis of charging GETCO and PGCIL charges

The Objector requested the Commission to direct GUVNL to submit its basis for charging PGCIL and GETCO charges from individual Petitioner.

Response of the Petitioners:

PGCIL and POSOCO charges are applicable in accordance with Order / Regulations of Hon'ble CERC. PGCIL and GETCO charges and losses both are separate matter and governed as per the Order/ Regulations of Hon'ble CERC and GERC respectively and therefore appropriate treatment is given for the losses and charges.

Commission's view:

GETCO losses are considered to work out total energy requirement and thus, per unit power purchase cost to determine gain/ loss on account of distribution loss. However, PGCIL and GETCO Charges are part of power purchase cost, considering distribution utilities as beneficiaries of State and National transmission system, and thus part of ARR to determine gap/ surplus of the truing up year.

55. Higher Return on Equity

The Objector objected to give Return on Equity @ 14% due to non-audited assets of the Petitioners.

Response of the Petitioners:

Return on Equity is claimed as per the relevant provisions of MYT Regulations and as explained in the petition, for assessing actual return on equity for FY 2017-18, Company has considered the opening balance of equity of FY 2017-18 equivalent to the closing balance of equity of FY 2016-17 as approved by the Commission in the True up order dated 31st March, 2018 and normative addition during FY 2017-18 based on actual capitalization

Commission's view:

The Commission approves normative equity addition at 30% of approved capitalization and allows Return on Equity at the rate of 14%. Further, as per Regulation 33 of the

GERC (MYT) Regulations, 2016, where actual equity employed is more than 30% of capital cost approved by the Commission, the amount of equity for the purpose of tariff is limited to 30% and the balance is considered as loan, thereby capping the equity at 30% of the capital cost approved by the Commission.

56. Disclosure of Total Income-

The objector has sought for disclosure of total income by the petitioners recovered from the consumers in accordance with various Regulations notified by the Commission and revenue earned from FPPPA Charges.

Response of the Petitioners:

As per Accounting practice, revenue accounted in the Annual Accounts includes revenue from sale of power to GUVNL (surplus sale) and DSM charges, besides revenue from sale of power to retail consumer categories. Whereas in the ARR petition, net power purchase cost is shown i.e. after reducing amount towards sale of surplus power to GUVNL from total power purchase cost, as per requirement of ARR mechanism. Therefore the amounts of revenue in the annual accounts and in the true-up petition cannot be same being requirement of different accounting treatment in the ARR and Annual Accounts. Revenue from sale of Power includes revenue through FPPPA charges, revenue from temporary connections also. Further, the head "Other Income" is classified under the head of non-tariff income in the petition and the same has been reduced from total ARR rather than including it in the revenue. So the total income is disclosed in the petition but presentation is different as per Accounting Practice and requirement as per MYT Regulations.

Commission's view:

During prudence check of the submission from licensee, whenever required the Commission asks licensee to provide additional details and clarification and all such additional information received from licensee in tariff determination exercise are placed on the Commissions' website and made it available to all the stakeholders. Non-Tariff Income is reduced from ARR to work out at Revenue Gap/ Surplus while carrying out truing up exercise so that consumers get the benefit of the Non-Tariff Income.

57. Higher rates of temporary connection

The tariff rates for temporary connections are higher than tariff rates for normal supply of electricity and income from such temporary connections is not disclosed by the petitioners.

Response of the Petitioners:

Being temporary by nature, the tariff for “Temporary Connection” should always be higher than the tariff for permanent category consumers.

Commission’s view:

The response of the Petitioners is self-explanatory.

58. Introduction of LTMD Tariff above 6 kW in all categories

The Objector requested either to create new demand based NRGP/RGP/GLP tariff (Both for Rural and General area) for consumers having connected load from 1 kW to 15 kW (LTMD 1) or LTMD tariff should be applicable to all small consumers having load from 6 kW and above in all categories including Residential /Commercial/ Industrial and GLP category.

Response of the Petitioners:

This is the suggestion to the Commission and any modification to be made by the Commission should be revenue neutral to the Company.

Commission’s view:

The Commission has dealt with this issue appropriately in the tariff Schedule attached to this order.

59. High loss making feeders

The Objector sought the list of high loss making feeders with plan of action and improvement in reducing the losses. The objector requested the Commission to differentiate between Tariff and Tariff schedule.

Response of the Petitioners:

Petitioners submitted that they have achieved a significant reduction in distribution losses, during recent years. These efforts shall continue and will be enhanced. However, loss reduction is a slow process and becomes increasingly difficult as the loss level goes down. Distribution Loss of Agriculture category is highly influenced by the amount and spells of rainfall etc. particularly during monsoon season. However, with the continuous efforts and expeditious release of new connections, the loss of Agriculture category has also reduced.

Commission's view:

While appreciating the efforts of the Petitioners to achieve loss reduction target, the Commission is of view as part of compliance of directives, where Petitioners have been submitting identified high loss making JGY feeders and steps to reduce losses of such feeders, the Petitioners should continue identifying high loss making feeders and target shall be set for loss reduction and steps should be taken to achieve the set target.

60. Revenue Billed and Revenue Collected

The Objector asked the petitioners to submit Revenue Billed and Revenue Collected for FY 2017-18.

Response of the Petitioners:

Petitioners submitted their collection efficiency as tabulated below;

| DISCOM | Collection efficiency (%) |
|---------------|----------------------------------|
| DGVCL | 100.08 |
| MGVCL | 100.05 |
| PGVCL | 100.00 |
| UGVCL | 100.00 |

Commission's view:

The response of the Petitioner is self-explanatory.

61. Higher recovery of FPPPA Charges

The FPPPA recovered is more than the basic FPPPA approved in the tariff order.

Response of the Petitioners:

As per the order of the Commission, incremental power purchase cost over the base power purchase cost is to be recovered through FPPPA charges over and above the base FPPPA charges (i.e. Rs. 1.43/unit for FY 2017-18). Therefore, during FY 2017-18 incremental power purchase cost over the base power purchase cost was recovered over and above the base FPPPA of Rs. 1.43/unit during the quarter. Thus, there is no excess recovery of FPPPA charges from the consumers during FY 2017-18.

Commission's view:

As explained by the Petitioners, incremental power purchase cost over the base power purchase cost is to be recovered through FPPPA charges over and above the base FPPPA charges (i.e. Rs. 1.43/unit for FY 2017-18).

62. Non submission of GETCO, PGCIL and SLDC charges in Power

Purchase Cost-

In truing up of FY 2017-18, Petitioners have not submitted GETCO, GUVNL, SLDC Charges and PGCIL Charges.

Response of the Petitioners:

Petitioners have not furnished any response in this regard.

Commission's view:

PGCIL and GETCO Charges are part of power purchase cost, considering the distribution utilities as beneficiaries of State and National transmission system, and thus part of ARR to determine gap/ surplus of the truing up year. SLDC Charges as shown in A & G expenses in the accounts have been considered in Power Purchase Cost. GUVNL cost is included in Power Purchase Cost.

63. Quantum of UI/DSM sales not submitted, sale of bulk supply not considered in energy balance and DSM charges are less and SLDC charges are different for four DISCOMs.

Details regarding quantum of UI/DSM sales to GUVNL along with UI charges borne by the petitioners are not submitted. Sale of bulk supply power is also not considered in energy balance and DSM charges are less. It is also submitted that SLDC charges are different for four DISCOMs.

Response of the Petitioners:

"Energy Balance" is carried out to estimate the "Energy Requirement" for retail sale to the consumers of the Company. To meet the "Energy Requirement" Power is procured by the Petitioners from different sources and during the process of real time operation, "Surplus" Energy is sold to others through GUVNL.

Commission's view:

DSM charges depend on system frequency. Treatment of DSM charges i.e. cost and revenue is given while determining Power Purchase Cost. It is also to mention that SLDC charges are levied based on contracted capacity which is different in case of four DISCOMs and therefore, SLDC charges are different. Moreover, sale of bulk supply in case of PGVCL is sale of power to KPT. It is not considered in energy balance so as to not distribute power purchase cost of KPT amongst other consumers.

64. Less revenue shown in the ARR/ True up proposal

Less revenue is shown in the ARR / True Up proposal.

Response of the Petitioners:

Revenue in annual accounts includes revenue from sale of surplus power to GUVNL and DSM charges, besides revenue from sale to different consumer categories as per Accounting practice. Whereas in the ARR petition, the net power purchase cost is shown after reducing the amount of surplus power as per requirement of ARR. Netting of the same heads i.e. revenue from sale of power to GUVNL and DSM Charges have been done and they have been reduced from total power purchase cost so the amount of revenue from annual accounts and shown in petition is not same. Revenue from sale of Power from respective category includes revenue through FPPPA. Also the head "Other Income" is classified under the head of non-tariff income in the petition and the same has been reduced from total ARR rather than including it in the revenue. So there is no error in the petition but presentation is in different format as per Accounting Practice and requirement as per MYT Regulations.

Commission's view:

The Commission has approved the proposal after prudence check considering revenue from different sources.

65. Subsidizing Agriculture Tariff category consumers

Though agriculture tariff category consumers are being subsidized, subsidizing category consumers should not pay such tariff rates to subsidize agriculture tariff category consumers with the reason that agriculture tariffs will be paid by the State Government.

Response of the Petitioners:

The National Tariff Policy mentions the need to have a rationalization of tariff to various consumer categories such that it is more aligned to the cost of supply and in a band of +-20 % to the average cost of supply. However, while implementing the above, ground realities of the sector have to be kept in view. One of the primary beneficiaries of the State's efforts to supply good quality, uninterrupted power is the industries and commercial entities in the State. On the other hand, agriculture category is being supplied only limited power per day for 8 hours. Further, mostly this power is supplied to them during off peak hours and during night time, when the average cost of power purchase from various generating stations is much lower due to merit order stacking mechanism for power off take. In effect, the cost of supply to agriculture category would be much lower than to other categories enjoying power during peak hours also. Thus, it is natural that the tariff rates for agriculture is significantly lower than other consumer categories.

While in the long run it would be desirable to have some rationalization of tariff across consumer categories, the socio-economic situation of power consumers cannot be neglected as supplying power at affordable rates to all classes of consumers is a primary responsibility of a power utility.

In the era when most of the public utilities are working with the principle of subsidising some part of the consumers, it is not possible for the utility to bill a particular category on the basis of cost to serve without changing the tariff of the other categories of consumer. Further, to ensure uniform tariff rates for all four state owned Distribution Companies, differential bulk supply tariff mechanism is in place.

Commission's view:

The Commission has always endeavoured to reduce the cross subsidy as provided under the Electricity Act, 2003 and the Tariff Policy.

66. Waiver of Bad loans

The write off of the dues from Essar Group as indicated in annual accounts has not be shown in the petition.

Response of the Petitioners:

Generally the amount settled through Lok Adalat, Order received from any of the judicial forum etc. or amount which is otherwise not recovered even after completing process / efforts, the same is written-off. This is the practice followed in all business.

Commission's view:

DGVCL has shown written off amount as Extra Ordinary Items as part of O & M expenses in the Petition and also in the annual accounts.

67. No reason provided for deviation from MYT parameters and CAPEX

The Petitioners have not specified reasons for deviation in Mid-Term Review from MYT parameters and CAPEX

Response of the Petitioners:

The petitions have been as per the principles laid down by the Commission in the applicable GERC (MYT) Regulations. Growth rates observed for various category of consumers during the initial two years of the Control Period target for releasing new connections, implementation of various schemes necessitated review of ARR and therefore, Company has filed petition for mid-term review of ARR. Capital Expenditure is mainly proposed to meet with the supply obligation and for System Improvement etc. GUVNL trades the eventual surplus power and income earned through trading is being passed on to the consumers of its subsidiary Distribution Companies. GUVNL's Annual Accounts are available on GUVNL's website.

Commission's view:

The Commission has approved CAPEX after prudence check in accordance with the provisions of the GERC (MYT) Regulations, 2016.

68. Energy savings due to LED bulbs

The Petitioners have not provided any details of energy savings by sale of LED bulbs in their licensed area.

Response of the Petitioners:

Energy consumption by the consumers is a function of many parameters, therefore, it is very difficult to derive the exact saving due to LED Bulbs. However, 9 Watts LED lamps are being used in place of higher wattages of CFL or GLS lamps etc., therefore, there is energy savings due to LED bulbs.

Commission's view:

The Commission, with an intention of monitoring the progress of implementation of DSM Programmes, has asked the Petitioners to submit quarterly reports in which energy saving due to implementation of the DSM Programmes is also included.

69. Tariff Proposal not in accordance with law and incomplete formats

The tariff proposals submitted by the Petitioner is not in accordance with the Electricity Act, 2003, National Electricity Policy and other notifications. Further, the formats of the Petitions are not complete.

Reply of the petitioner:

The Petitioners have filed the petitions under the provisions of the GERC (MYT) Regulations, 2016 along with other guidelines and directions issued by the Commission from time to time and accordingly, all formats to the petition have been submitted.

Commission's view:

As provided in Tariff Policy, the Commission has to initiate tariff determination exercise suo-motu in the absence of filing by the licensee or incomplete filing so as to decide the tariff timely. Information gaps observed, if any, during processing of the petitions are sought to be made good from the Petitioners and these are placed on the Commission's website for the stakeholders to study.

70. Audit of Distribution Utilities

The objector requested for audit of distribution utilities

Response of the Petitioners:

The Petitioner being a State Government owner Distribution Company, financial accounts of the Company are always audited by CAG every year

Commission's view:

The accounts of the Petitioners, being Government owned undertakings, are audited by the Statutory Auditors appointed by the C & AG. Further, the accounts of the Petitioners are subject to supplementary audit by the C & AG. Moreover, the C & AG also conduct issue based performance/ propriety audit of the Petitioners. The Commission, therefore, does not find any merit in the objector's submission.

71. GUVNL's Audited Accounts

The Objector requested the Commission to ask GUVNL to submit its Annual Accounts.

Response of the Petitioners:

GUVNL's Annual Accounts are available on GUVNL website.

Commission's view:

The Commission noted the response of the Petitioners.

72. Tariff for Industrial Category Consumers

The tariff for Industrial Category Consumers is higher.

Response of the Petitioners:

The National Tariff Policy mentions the need to have a rationalization of tariff to various consumer categories such that it is more aligned to the cost of supply in the band of +/- 20% to the average cost of supply. It is further submitted that in order to ensure uniform tariff rates for all four State Owned DISCOMs, bulk supply tariff mechanism is in place. Further, average recovery from all categories remains within the band of +/- 20% to the average cost of supply.

Commission's view:

The response of the Petitioners is self-explanatory.

73. Minimize O & M expenses

The Objector stated that O & M expenses are high and should be minimized

Response of the Petitioners:

Commission's view:

O & M expenses are approved in accordance with relevant provisions of the GERC (MYT) Regulations, 2016 as detailed in Chapter 4 of this Order.

74. Rate of Delayed Payment Charges should be brought down to 7%

The Objector stated that as loan interest rate is reduced, banks have reduced deposit rates to make up the difference. Considering this fact, the DPC rate of 15% (other than

agriculture consumers) and of 12% (for agriculture consumers) should be brought down to 7% per annum.

Response of the Petitioner:

Commission's view:

Delayed Payment Charges is a penalty and cannot be equated with Bank Interest Rates.

75. Metering of Distribution Transformers

Metering should be done at all Distribution Transformer Centres to ascertain losses and taking corrective action.

Response of the Petitioners:

Commission's view:

Necessary directive to meter all Distribution Transformer Centres has already been issued and the Commission has periodically reviewed progress made by the Petitioners in metering Distribution transformers.

76. Allow Bank Guarantee towards Security Deposit and not to levy Security Deposit from consumers who have pre-paid meters.

The Objector requested to allow Bank Guarantee towards Security Deposit for all the categories of consumers. It is also requested to refund Security Deposit collected from consumers when smart pre-paid meters are installed.

Response of the Petitioners:

Commission's view:

The said option to furnish Security Deposit in the form of irrevocable Bank Guarantee is available for the consumers whose Security Deposit exceeds Rs. 25 Lakhs. However, the Commission is of the view that the matter is related to Regulations on Security Deposit and may be dealt separately.

77. Cost of Supply at EHV level

The Objector stated that there is no need to work out Cost of Supply at EHV level.

Response of the Petitioners:

Commission's view:

Tariff determination is based on overall Average Cost to Serve. Consumers are being connected at different voltage level according to their load requirement and as per relevant provisions of the Electricity Supply Code. Therefore, the Commission is of the view that consumer being supplied at a certain voltage level by virtue of its load requirement, Cost of Supply at EHV level is necessary and accordingly directive to work out Cost of Supply at EHV level was given in past year's Tariff Order.

78. Disclosure of Expenditure incurred for the projects which were outsourced

The expenditure incurred for the projects which are outsourced should be shown separately.

Response of the Petitioners:

Commission's view:

The Commission is of the view that expenditure incurred for the projects whether outsourced or implemented through internal workforce, treatment is given same to CAPEX and capitalization and thus do not make any difference.

79. Consumers not to pay PGCIL charges

The consumers should not be made to pay PGCIL charges

Response of the Petitioners:

Commission's view:

PGCIL Charges are part of the total power purchase cost, considering distribution utilities as the beneficiaries of the State and National transmission system, and thus part of ARR to determine gap/ surplus of the truing up year.

80. Fixed cost of stranded generation capacity

The Objector objected the consumers being made to pay fixed cost for stranded generation capacity.

Response of the Petitioners:

Commission's view:

Petitioners, against one of the objections above, have submitted that with the existing fixed charges, DISCOMs are able to recover 36% of fixed cost. It is also to state here that even though generation capacity is stranded, DISCOMs are bound to provide 24*7 power supply to the consumers and are also bound to keep the capacity ready in case OA consumers need it. Considering these requirements, DISCOMs are paying fixed cost to generating stations based on their Plant Availability and not on Plant Load Factor and this is in line with the present Regulations.

81. To make last 5 years' Petitions as well as data of FPPPA available on website

The Petitioner should make available last 5 years' Petitions and FPPPA data on their websites

Response of the Petitioners:

Commission's view:

The Commission is of the view that Petitioner should examine the suggestion of the Respondent about uploading the last 5 years Petitions at the time of uploading tariff petitions for the truing up of last year and tariff determination of ensuing year so that consumers can have access to past data for comparison and take appropriate actions including upgradation of its IT system. Licensees/ GUVNL should also keep the FPPPA data for last 8 quarters on their websites.

3.3 Issues pertaining to UGVCL

1. Objection against Petition

The Objector has objected against the petition filed by the Petitioner for determination of tariff for FY 2019-20.

Response of the Petitioner:

The issue raised by the Objector is not a specific objection to the present petition filed by the Petitioner.

Commission's view:

The Commission has noted the response of the Petitioner. The Commission carries out tariff determination exercise in accordance with relevant Regulations



4 Truing up of FY 2017-18

This Chapter deals with truing up of FY 2017-18.

UGVCL, in its submission for True-up of FY 2017-18, has furnished details of the actual energy sales, expenditure and revenue, based on the audited annual accounts for FY 2017-18. The Petitioner has stated that the truing up for FY 2017-18 is based on the comparison of the actual performance of FY 2017-18 with the approved aggregate revenue requirement for FY 2017-18 in the MYT Order dated 31st March, 2017 to arrive at the Gain/(Loss), as per the GERC (MYT) Regulations.

The Commission has analysed the components of the actual energy sales, expenses, revenue and computed Gain/(Loss) in the process of truing up for FY 2017-18.

4.1 Energy sales

Petitioner's submission

The Petitioner has submitted the category-wise actual energy sales for FY 2017-18 as given in the Table below:

Table 4-1: Category-wise sales for FY 2017-18

| | | (MUs) | |
|----------|--------------------------|---------------------------|-----------------------------|
| | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
| A | LT Consumers | | |
| 1 | RGP | 2200 | 2102 |
| 2 | GLP | 48 | 45 |
| 3 | Non-RGP & LTMD | 1733 | 1763 |
| 4 | Public Water Works | 718 | 708 |
| 5 | Agriculture- Unmetered | 6219 | 6313 |
| 6 | Agriculture-Metered | 3253 | 2736 |
| 7 | Public Lighting | 59 | 52 |
| | LT Total (A) | 14230 | 13718 |
| B | HT Consumers | | |
| 8 | Industrial HT | 4716 | 6418 |
| 9 | Railway Traction | 0 | 0 |
| | HT Total (B) | 4716 | 6418 |
| | Grand Total (A+B) | 18946 | 20137 |

Commission's Analysis

The Commission, in the MYT Order, dated 31st March, 2017, had approved the energy sales of 18946 MUs for FY 2017-18 against which, UGVCL has submitted the actual sales of 20137 MUs.



As can be observed from the Table above that the actual energy sales to LT categories are lower than those approved by the Commission for FY 2017-18 in the MYT Order dated 31st March, 2017. However energy sales in Industrial HT category is higher by 36.09% than approved in the MYT Order dated 31st March, 2017.

Overall, the actual energy sales of UGVCL is higher by 1191 MUs, against what is approved in the MYT Order dated 31st March, 2017. As energy sales depend upon factors, which are related to income level and overall growth of the economy, it remains largely uncontrollable in nature.

The Commission approves the energy sales of 20137 MUs as detailed in the Table below:

Table 4-2: Energy sales approved in truing up for FY 2017-18

| (MUs) | | | | |
|---------|--------------------------|---------------------------|-----------------------------|---------------------------|
| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Approved in Truing up for |
| A | LT Consumers | | | |
| 1 | RGP | 2200 | 2102 | 2102 |
| 2 | GLP | 48 | 45 | 45 |
| 3 | Non-RGP & LTMD | 1733 | 1763 | 1763 |
| 4 | Public Water Works | 718 | 708 | 708 |
| 5 | Agriculture-Unmetered | 6219 | 6313 | 6313 |
| 6 | Agriculture-Metered | 3253 | 2736 | 2736 |
| 7 | Public Lighting | 59 | 52 | 52 |
| | LT Total (A) | 14230 | 13718 | 13718 |
| B | HT Consumers | | | |
| 8 | Industrial HT | 4716 | 6418 | 6418 |
| 9 | Railway Traction | 0 | 0 | 0 |
| | HT Total (B) | 4716 | 6418 | 6418 |
| | Grand Total (A+B) | 18946 | 20137 | 20137 |

4.2 Distribution Losses

Petitioner's submission

The Petitioner has submitted that the actual distribution losses for FY 2017-18 are 8.31%, as against the approved losses of 9.90% in the MYT Order dated 31st March, 2017 as given in the Table below:

Table 4-3: Distribution Losses

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|---------------------|---------------------------|-----------------------------|
| 1 | Distribution Losses | 9.90% | 8.31% |



The Petitioner submitted that as per the GERC (MYT) Regulations, 2016 the distribution losses need to be treated as controllable and any gain or loss has to be dealt with, accordingly, as per the provisions of the MYT Regulations.

The Petitioner submitted that it has achieved significant reduction in distribution losses during recent years and shall continue its efforts to reduce the distribution losses further.

Commission's Analysis

UGVCL has contended that the actual distribution losses are 8.31% for FY 2017-18, as against 9.90% approved in the MYT Order dated 31st March, 2017.

The Commission considers distribution losses as controllable as per the GERC (MYT) Regulations, 2016. Accordingly, the Commission considers the distribution losses of 9.90% as shown in the Table below for computation of Gain/ (Loss) due to variance in distribution losses.

Table 4-4: Distribution Losses approved for truing up for FY 2017-18

| Particulars | Approved in the MYT Order | Actual Claimed in truing up | Approved in True Up |
|---------------------|---------------------------|-----------------------------|---------------------|
| Distribution Losses | 9.90% | 8.31% | 9.90% |

4.3 Energy requirement

Petitioner's submission

UGVCL has submitted the energy requirement for FY 2017-18 based on the actual energy sales and the actual distribution losses, as given in the Table below.

Table 4-5: Energy requirement and Energy balance as submitted by UGVCL for FY 2017-18

| Sr. No. | Particulars | Unit | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|---|------------|---------------------------|-----------------------------|
| 1 | Energy Sales | MUs | 18946 | 20137 |
| 2 | Distribution Losses | MUs | 2082 | 1824 |
| | | % | 9.90% | 8.31% |
| 3 | Energy Requirement | MUs | 21028 | 21961 |
| 4 | Local Power Purchase by Discom | MUs | | 50 |
| 5 | Power Purchase at T<>D periphery from GUVNL | | | 21911 |
| 5 | Transmission Losses | MUs | 842 | 853 |
| 5 | Total Energy to be input to Transmission System | MUs | 21870 | 22764 |
| 6 | Pooled Losses in PGCIL System | MUs | 336 | 396 |
| 7 | Total Energy Requirement | MUs | 22206 | 23210 |



Commission's Analysis

UGVCL has computed the energy requirement based on the distribution losses of 8.31%, actual energy sales of 20137 MUs and transmission losses of 3.75%

The Commission had approved the distribution losses of 9.90% and the transmission losses of 3.85% in the MYT Order dated 31st March, 2017.

Accordingly, the Commission has worked out the energy requirement of 23210 MUs for truing up of FY 2017-18 as shown in the Table below:

Table 4-6: Energy requirement approved by the Commission for truing up for FY 2017-18

| Sr. No. | Particulars | Unit | Approved in MYT Order | Actual Claimed in truing up | Approved in truing up |
|---------|---|------------|-----------------------|-----------------------------|-----------------------|
| 1 | Energy Sales | MUs | 18946 | 20137 | 20137 |
| 2 | Distribution Losses | MUs | 2082 | 1824 | 1824 |
| | | % | 9.90% | 8.31% | 8.31% |
| 3 | Energy Requirement | MUs | 21028 | 21961 | 21961 |
| 4 | Transmission Losses | MUs | 842 | 853 | 853 |
| 5 | Total Energy to be input to Transmission System | MUs | 21870 | 22764 | 22764 |
| 6 | Pooled Losses in PGCIL System | MUs | 336 | 396 | 396 |
| 7 | Total energy requirement | MUs | 22206 | 23210 | 23210 |

4.4 Power Purchase Cost

Petitioner's submission

The Petitioner has submitted that the company has been allocated share of generation capacities as per the scheme worked out by GUVNL.

UGVCL has submitted the actual power purchase cost incurred during FY 2017-18, as shown below:

Table 4-7: Power Purchase Cost claimed by UGVCL for FY 2017-18

| Particulars | (Rs. Crore) | |
|---------------------------|---------------------------|-----------------------------|
| | Approved in the MYT Order | Actual Claimed in truing up |
| Total Power Purchase Cost | 8866.95 | 9004.23 |

Power Purchase Cost given above is the net power purchase cost after considering the SLDC Charges, net UI/ DSM Charges Payable/Receivable and the revenue from sale of power to GUVNL. UGVCL has submitted the break-up of actual power purchase cost incurred during FY 2017-18, as shown in the Table below:



Table 4-8: Power Purchase Cost submitted by UGVCL for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|----------|-------------------------------------|---------------------------|-----------------------------|
| A | Cost | | |
| 1 | Power Purchase from GUVNL | | 9142.76 |
| 2 | Unscheduled Interchange/DSM Charges | | 5.95 |
| 3 | Power Purchase from Wind Farm | | 11.04 |
| 4 | Power Purchase from Solar | | 22.70 |
| 5 | SLDC Charges | | 3.49 |
| B | Income | | |
| 1 | Sale of Power to GUVNL | | 87.55 |
| 2 | Unscheduled Interchange/DSM Charges | | 94.16 |
| | Net Power Purchase Cost | 8866.95 | 9004.23 |

UGVCL submitted that the total power purchase cost for FY 2017-18 consists of the basic power purchase cost, transmission charges payable to GETCO and PGCIL, SLDC charges and the DISCOM's share of GUVNL cost.

The quantum of power purchase depends upon sales during the year as well as the losses in the system. Though the actual distribution losses in UGVCL distribution network have been lower than the approved level and the sales are higher than that approved by the Commission and hence, the overall quantum of power purchased was higher than the approved quantum of power required.

As per the GERC (MYT) Regulations, 2016 the Commission has categorised the variation in the price of fuel and/or price of power purchase according to the FPPPA formula approved by the Commission as an uncontrollable factor. Further, the Commission has also identified the variation in the number or mix of consumers or quantity of electricity sold to consumers as an uncontrollable factor. Thus, the variation in these factors affects the power purchase expenses and results into either a loss or gain. Accordingly, any gain or loss on this account is to be entirely passed on to the consumers as per the methodology approved by the Commission.

In addition to the above, there is an incidence of lower power purchase cost on account of the lower Distribution loss as compared to the loss approved by the Commission. These gain has resulted in lower power purchase expenses as the quantum of power required to be purchased to meet the same level of demand would be lower hence resulting in the gain.

The increase or reduction in quantum of power purchase and power purchase cost due to variation in distribution loss is a controllable factor which would result in Gain/Loss under the GERC (MYT) Regulations, 2016 and is dealt with accordingly.



Commission's Analysis

The Commission has examined the actual quantum of power purchased and the power purchase cost during FY 2017-18, based on the actual energy sales and the distribution losses submitted by UGVCL. The sales and the quantum of power purchase and the power purchase cost are as per the audited annual accounts for FY 2017-18. The Commission has observed that the Petitioner has, in the audited accounts included the SLDC charges of Rs. 3.49 Crore in A & G Expenses. Since the same is a part of Power Purchase Cost, it is reduced from A & G Expenses and included in the Power Purchase Cost. After addition of SLDC charges of Rs. 3.49 Crore, deduction of Income of Rs. 87.55 Crore towards Sale of Power to GUVNL and UI/DSM Expenses or Income, the Power Purchase Cost works out to Rs. 9004.23 Crore as shown in the Table below:

Table 4-9: Power Purchase Cost as per the audited accounts for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Amount |
|---------|--|---------|
| 1 | Power Purchased from GUVNL | 9142.76 |
| 2 | Power Purchased from CPP/Wind Farms | 11.04 |
| 3 | Power Purchased from Solar | 22.70 |
| 4 | UI/DSM Charges (Expense) | 5.95 |
| 5 | SLDC Charges | 3.49 |
| 6 | Total Power Purchase | 9185.94 |
| 7 | Power sold to GUVNL (Income) | 87.55 |
| 8 | UI/DSM Charges (Income) | 94.16 |
| 9 | Net Power Purchase Cost (6-7-8) | 9004.23 |

The Commission approves the power purchase cost of Rs. 9004.23 Crore for FY 2017-18 as per the audited annual accounts.

Table 4-10: Power Purchase Cost approved by the Commission for truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Approved in Truing up |
|---------------------------|---------------------------|-----------------------------|-----------------------|
| Total Power Purchase Cost | 8866.95 | 9004.23 | 9004.23 |

4.5 Gain / (Loss) due to Distribution Losses

Petitioner's Submission

UGVCL has claimed that there is gain of Rs. 150.64 Crore in the power purchase cost due to lower distribution losses as compared to distribution losses approved in the



MYT Order dated 31st March, 2017. The gain is considered as controllable variation. The calculation of gain on account of lower distribution losses as submitted by UGVCL is shown in the Table below:

Table 4-11: Gain/ (Loss) on account of Distribution Losses for FY 2017-18 as submitted by UGVCL

| Sr. No. | Particulars | Unit | With Approved Distribution Losses | With Actual Distribution Losses |
|---------|--|-----------|-----------------------------------|---------------------------------|
| 1 | Energy Sales | MUs | 20136.78 | 20136.78 |
| 2 | Distribution Losses | MUs | 2212.59 | 1824.28 |
| | | % | 9.90% | 8.31% |
| 3 | Energy Requirement | MUs | 22349.37 | 21961.06 |
| 4 | Saving due to Distribution Losses | MUs | - | 388.31 |
| 5 | Average Cost of Power Purchase | Rs./kWh | - | 3.88 |
| 6 | Gain/(Loss) Due to Dist. Losses | Rs. Crore | - | 150.64 |

Commission's Analysis

The Commission has approved distribution losses at 9.90% for FY 2017-18 in the MYT Order dated 31st March, 2017 against which UGVCL has achieved distribution losses of 8.31%. However, as discussed in Section 4.2, the Commission approves 9.90% as the distribution loss for truing up of FY 2017-18.

The total Gain / (Loss) on account of lower distribution losses are computed in the Table below:

Table 4-12: Approved Gain/ (Loss) on account of Distribution Losses for FY 2017-18
(Rs. Crore)

| Sl. no. | Particulars | Units | with Approved Distribution Losses | Approved for truing up |
|---------|--|------------|-----------------------------------|------------------------|
| 1 | Energy Sales | MUs | 20136.78 | 20136.78 |
| 2 | Distribution Losses | MUs | 2212.59 | 1824.28 |
| | | % | 9.90% | 8.31% |
| 3 | Energy Requirement | MUs | 22349.37 | 21961.06 |
| 4 | Saving due to Distribution Losses | MUs | - | 388.30 |
| 5 | Average Power Purchase Cost | Rs./Unit | - | 3.88 |
| 6 | Gain/(Loss) due to Dist. Losses | | - | 150.64 |

The total gain on account of lower distribution losses, as computed by the Commission of Rs. 150.64 Crore is attributable to controllable factors.

While computing the Gain / (Loss) due to change in distribution losses, the Commission has considered the distribution losses at 9.90% of actual energy sales to



arrive at change in energy requirement at the distribution periphery and did not consider the transmission losses to factor the efficiency of distribution activities only.

The Commission considered change in power purchase cost as uncontrollable and attributable to the variation in cost and quantum of power due to variations in sales and transmission losses, while variations in quantum of power due to distribution losses are considered as controllable. Accordingly, Gain/Loss computed on account of power purchase are shown in the Table below:

Table 4-13: Approved gain / (loss) – power purchase expenses for truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in Truing up | Deviation + (-) | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------------------------|---------------------------|-----------------------|-----------------|---|---|
| Total Power Purchase Cost | 8,866.95 | 9,004.23 | (137.28) | 150.64 | (287.92) |

4.6 Fixed Charges

4.6.1 Operation and Maintenance (O&M) Expenses for FY 2017-18

UGVCL has claimed O&M Expenses of Rs. 623.31 Crore, which is inclusive of Employee Cost of Rs. 531.92 Crore, Repairs & Maintenance Expenses of Rs. 61.36 Crore, Administration & General Expenses of Rs. 99.22 Crore and Other Expenses Capitalized of Rs. 69.19 against the approved O&M Expense of Rs. 443.05 Crore as per the details given in the Table below:

Table 4-14: O&M Expenses claimed in the truing up for FY 2017-18

(Rs. Crore)

| Sr.No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation + (-) |
|--------|---|---------------------------|-----------------------------|-----------------|
| 1 | Employee Cost | 423.58 | 531.92 | (108.34) |
| 2 | Repairs & Maintenance Expenses | 88.50 | 61.36 | 27.14 |
| 3 | Administration & General Expenses | 75.69 | 99.22 | (23.53) |
| 4 | Other Debits | - | - | - |
| 5 | Extraordinary Items | - | - | - |
| 6 | Net Prior Period Expenses /(Income) | - | - | - |
| 7 | Other Expenses Capitalised | (144.72) | (69.19) | (75.53) |
| 8 | Operation & Maintenance Expenses | 443.05 | 623.31 | (180.26) |



Petitioner's submission

UGVCL has compared the O&M expenses actually incurred during FY 2017-18 with the expenses approved by the Commission in the MYT Order dated 31st March, 2017 and arrived at gain/ (loss) as shown in the Table below:

Table 4-15: O&M Expenses and Gain / Loss claimed in the truing up for FY 2017-18
(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|-------------------------------------|---------------------------|-----------------------------|---|---|
| 1 | Employee Cost | 423.58 | 531.92 | (82.56) | (25.78) |
| 2 | Repairs & Maintenance Expenses | 88.50 | 61.36 | 27.14 | |
| 3 | Administration & General Expenses | 75.69 | 99.22 | (23.53) | |
| 4 | Other Debits | - | - | - | |
| 5 | Extraordinary Items | - | - | | |
| 6 | Net Prior Period Expenses /(Income) | - | - | | |
| 7 | Other Expenses Capitalised | (144.72) | (69.19) | | (75.53) |
| 8 | Total O & M Expenses | 443.05 | 623.31 | (78.95) | (101.31) |

The component-wise O&M expenses are discussed in the following paragraphs.

4.6.1.1 Employee Cost

UGVCL has claimed Rs. 531.92 Crore towards the employee cost in the truing up for FY 2017-18. The employee cost approved for FY 2017-18 in the MYT Order dated 31st March, 2017 and claimed by UGVCL in the truing up are given in the Table below:

Table 4-16: Employee Cost claimed by UGVCL in the truing up for FY 2017-18
(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|---------------|---------------------------|-----------------------------|---|---|
| 1 | Employee Cost | 423.58 | 531.92 | (82.56) | (25.78) |

Petitioner's submission

UGVCL has submitted that the actual employee cost for FY 2017-18 was Rs. 531.92 Crore which excludes the provision made towards 7th Pay Commission of Rs. 54.80 but includes the actual amount paid towards 7th Pay Commission of Rs. 25.78 Crore and Rs. 60.91 Crore of Re-measurement of defined benefits plans. The Commission in the MYT Order dated 31st March, 2017 and True Up Order of FY 2016-17 dated 31st



March, 2018 had not approved the provision made for respective years towards the impact of 7th Pay Commission considering that actual payment is not made and had ruled that as and when the actual expenses are incurred, the Commission would consider such claims, which would be accounted for during the true up of annual account of the respective year as uncontrollable factor. The employee cost was incurred on the basis of the guidelines issued by the competent authorities like the State Government and that the entire expenditure estimated is a legitimate expenditure and any variation is purely beyond its control. Accordingly, UGVCL has estimated a loss of Rs. 82.56 Crore on account of controllable factors and Rs. 25.78 Crore on account of uncontrollable factors.

Commission's Analysis

UGVCL has compared the actual employee cost of Rs. 531.92 Crore incurred during FY 2017-18 with Rs. 423.58 Crore approved in the MYT Order dated 31st March, 2017. The actual employee cost, as per the audited annual accounts for FY 2017-18 is Rs. 525.81 Crore before capitalization of Rs. 59.85 Crore. Further, the Petitioner has submitted that the aforesaid employee cost excludes Rs. 54.80 Crore towards Provision for 7th Pay Commission but includes Rs. 25.78 Crore towards the actual payout on account of wage revision. The Petitioner has added the Re-measurement of the Defined Benefit Plans of Rs. 60.91 Crore as appearing in the Statement of P&L for the year ended 31st March, 2018 being the component of employee cost to arrive at claimed figure of Rs. 531.92 Crore.

Therefore, the Commission considers Rs. 531.92 Crore as employee expenses for the purpose of true up of FY 2017-18. The Commission considers the employee cost as a controllable expense, which is in line with the MYT Regulations. Further, the actual payments towards the 7th Pay Commission of Rs. 25.78 Crore has been considered as uncontrollable.

The Commission, accordingly, approves the employee cost at Rs. 531.92 Crore in the truing up for FY 2017-18.

Table 4-17: Employee Cost approved in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|---------------|---------------------------|-----------------------|---|---|
| 1 | Employee Cost | 423.58 | 531.92 | (82.56) | (25.78) |



4.6.1.2 Repairs & Maintenance (R&M) Expenses

UGVCL has claimed Rs. 61.36 Crore towards R&M expenses in the truing up for FY 2017-18. The R&M expenses approved for FY 2017-18 in the MYT Order dated 31st March, 2017 and claimed by UGVCL in the truing up are as given in the Table below:

Table 4-18: R&M Expenses claimed by UGVCL for the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|--------------------------------|---------------------------|-----------------------------|---|---|
| 1 | Repairs & Maintenance Expenses | 88.50 | 61.36 | 27.14 | |

Petitioner's submission

UGVCL has submitted that the assets of UGVCL are old and require regular maintenance to ensure uninterrupted operations. It has been further submitted that UGVCL has been trying its best to ensure uninterrupted operations of the system by undertaking necessary expenditure for R&M activities. UGVCL has worked out a gain of Rs. 27.14 Crore due to controllable factors as provided in the GERC (MYT) Regulations, 2016.

Commission's Analysis

The actual R&M expenses incurred during FY 2017-18 are Rs. 61.36 Crore, as per the audited annual accounts. The Commission has observed that R&M expenditure incurred by UGVCL is lower than the amount approved in the MYT Order dated 31st March, 2017. The R&M expenses is a controllable item of expenditure under the GERC (MYT) Regulations, 2016.

The Commission accepts the contention of UGVCL and accordingly approves the R&M expenses at Rs. 61.36 Crore in the truing up for FY 2017-18.

Table 4-19: R&M Expenses approved for the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|--------------------------------|---------------------------|-----------------------|---|---|
| 1 | Repairs & Maintenance Expenses | 88.50 | 61.36 | 27.14 | |



4.6.1.3 Administration & General (A&G) Expenses

UGVCL has claimed Rs. 99.22 Crore towards A&G expenses in the truing up for FY 2017-18. The A&G expenses approved for FY 2017-18 in the MYT Order dated 31st March, 2017 and claimed by UGVCL in the truing up are given in the Table below:

Table 4-20: A&G Expenses claimed by UGVCL in the truing up for FY 2017-18
(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factor | Gain/(Loss) due to Uncontrollable Factors |
|---------|-----------------------------------|---------------------------|-----------------------------|--|---|
| 1 | Administration & General Expenses | 75.69 | 99.22 | (23.53) | |

Petitioner's submission

UGVCL has submitted that the A&G expenses are categorised as controllable expenses in the GERC (MYT) Regulations, 2016 and the actual A&G expenses, when compared with the approved value, resulted in a loss of Rs. 23.53 Crore for FY 2017-18.

Commission's Analysis

The Commission verified the audited annual accounts of UGVCL and observed that actual A&G Expenses as per audited annual accounts is Rs. 171.91 Crore before Capitalization of Expenses of Rs. 9.34 Crore. It is further observed that this amount has included Repairs & Maintenance Expenses of Rs. 61.36 Crore, SLDC Charges of Rs. 3.49 Crore, Bad Debts Written Off of Rs. 0.31 Crore, CSR Expenses of Rs. 0.35 Crore and Provision for Bad & Doubtful Debts of Rs. 7.18 Crore in A & G Expenses. While the Commission has dealt with the R&M Expenses separately in Para 4.6.1.2 above, SLDC Charges are included in Power Purchase Cost approved at Table 4.9 of this Order. The Commission has also dealt with the Bad Debts Written Off separately in this Order. Accordingly, the Commission has excluded these items of expenditure from A & G Expenses along with CSR Expenses and Provision for Bad & Doubtful Debts in terms of the GERC (MYT) Regulations, 2016 to arrive at the net A & G Expenses of Rs. 99.22 Crore and approves the same. The Commission observes that the actual A&G expenses of Rs. 99.22 Crore is higher than Rs. 75.69 Crore approved in the MYT Order dated 31st March, 2017 by Rs. 23.53 Crore.



The parameters impacting A&G expenses are controllable in nature, as specified in the GERC (MYT) Regulations, 2016. The Commission, accordingly, considers Rs. 23.53 Crore as loss on account of controllable factors.

The Commission, accordingly, approves the A&G expenses at Rs. 99.22 Crore in the truing up for FY 2017-18.

Table 4-21: A&G Expenses approved in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|-----------------------------------|---------------------------|-----------------------|---|---|
| 1 | Administration & General Expenses | 75.69 | 99.22 | (23.53) | |

4.6.1.4 Other Expenses Capitalised

UGVCL has claimed the actual expenses capitalised at Rs. 69.19 Crore in the truing up for FY 2017-18, as against Rs. 144.72 Crore approved in the MYT Order dated 31st March, 2017 as shown in the Table below:

Table 4-22: Other Expenses Capitalized as claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|----------------------------|---------------------------|-----------------------------|---|---|
| 1 | Other Expenses Capitalized | (144.72) | (69.19) | | (75.53) |

Commission's Analysis

The Commission has observed that the other expenses capitalised represent the capitalisation of Employee Cost and A&G Expenses, as seen from the annual accounts for FY 2017-18. The actual other expenses capitalised is Rs. 69.19 Crore, as per the audited annual accounts for FY 2017-18.

The Commission, accordingly, approves the Other Expenses Capitalised at Rs. 69.19 Crore against Rs. 144.72 Crore approved in the MYT Order dated 31st March, 2017. The Commission allows Rs. 75.53 Crore as loss due to uncontrollable factors as shown in the Table below:

Table 4-23: Other Expenses Capitalized approved in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|----------------------------|---------------------------|-----------------------|---|---|
| 1 | Other Expenses Capitalized | (144.72) | (69.19) | | (75.53) |

The total O&M expenses approved in the truing up for FY 2017-18 and the Gain / (Loss) due to controllable and uncontrollable factors are detailed in the Table below:

Table 4-24: Approved O&M expenses and Gain / Loss in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Approved in truing up | Deviation + (-) (2-4) | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|-------------------------------------|---------------------------|-----------------------------|-----------------------|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Employee Cost | 423.58 | 531.92 | 531.92 | (108.34) | (82.56) | (25.78) |
| Repairs & Maintenance Expenses | 88.50 | 61.36 | 61.36 | 27.14 | 27.14 | |
| Administration & General Expenses | 75.69 | 99.22 | 99.22 | (23.53) | (23.53) | |
| Other Debits | - | - | - | | | - |
| Extraordinary Items | - | - | - | - | | |
| Net Prior Period Expenses /(Income) | - | - | - | - | | |
| Other Expenses Capitalised | (144.72) | (69.19) | (69.19) | (75.53) | | (75.53) |
| Total O & M Expenses | 443.05 | 623.31 | 623.31 | (180.26) | (78.95) | (101.31) |

4.6.2 Capital expenditure, Capitalization and Funding of CAPEX

UGVCL has furnished actual capital expenditure of Rs. 629.31 Crore in the truing up for FY 2017-18, against Rs. 784.43 Crore approved in the MYT Order dated 31st March, 2017 as given in the Table below:

Table 4-25: Capital expenditure claimed by UGVCL for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation |
|----------------------------------|---------------------------|-----------------------------|-----------|
| Distribution Schemes | | | |
| Normal Development Scheme | 175.00 | 241.70 | (66.70) |
| System Improvement Scheme | 35.00 | 24.54 | 10.46 |
| HVDS in selected sub-division | 5.50 | 4.93 | 0.57 |
| Underground cables | 100.00 | 0.07 | 99.93 |
| Plan Load management Transformer | 4.00 | 0.00 | 4.00 |
| Others (VDS) | 0.65 | 1.02 | (0.37) |



| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation |
|---|------------------------------|-----------------------------------|---------------|
| Total | 320.15 | 272.26 | 47.89 |
| Rural Electrification Schemes Plan | | | - |
| TASP (Wells) & Petapara | 35.00 | 22.65 | 12.35 |
| Scheduled Caste Sub Plan(Wells) | 5.00 | 0.16 | 4.84 |
| Scheduled Caste Sub Plan(lightning) | 3.00 | 1.63 | 1.37 |
| Electrification of Hutments | 5.00 | 12.21 | (7.21) |
| Kutir Jyoti Scheme | 0.50 | 59.25 | (58.75) |
| Dark Zone | 150.00 | 90.18 | 59.82 |
| Sagarkhedu | 4.50 | 2.03 | 2.47 |
| Solar home light | 25.00 | 0.00 | 25.00 |
| Total | 228.00 | 188.11 | 39.89 |
| Central Government Schemes- Plan | | | |
| DDUJGY | 60.00 | 43.65 | 16.35 |
| R-APDRP Part A | 2.05 | 0.00 | 2.05 |
| IPDS | 51.00 | 40.77 | 10.23 |
| SCADA Part A | 0.21 | 7.54 | (7.33) |
| SCADA Part B | 0.00 | 1.14 | (1.14) |
| Smart Grid | 14.00 | 3.46 | 10.54 |
| Total | 127.26 | 96.56 | 30.70 |
| Other Schemes (Non Plan) | | | - |
| RE (Tatkal) | 6.00 | 6.05 | (0.05) |
| AG Normal (SPA) | 60.00 | 45.50 | 14.50 |
| Energy Conservation | 0.10 | 0.08 | 0.02 |
| Total | 66.10 | 51.63 | 14.47 |
| Other New Schemes | | | |
| Automation and Computerization | 4.35 | 0.00 | 4.35 |
| Civil Work / New Building | 16.00 | 0.06 | 15.94 |
| GIS in Cities | 0.20 | 3.44 | (3.24) |
| Other Schemes (Earthing) | 0.87 | 0.00 | 0.87 |
| Other Repairing Work/Civil Work | 2.00 | 1.26 | 0.74 |
| New Furniture and Fixtures | 2.00 | 0.00 | 2.00 |
| Vehicles | 0.50 | 1.79 | (1.29) |
| DSM | 2.00 | 0.71 | 1.29 |
| DISS | 10.00 | 0.00 | 10.00 |
| Solar Pump | 5.00 | 13.49 | (8.49) |
| Total | 42.92 | 20.75 | 22.17 |
| Capital Expenditure Total | 784.43 | 629.31 | 155.12 |

Petitioner's Submission

UGVCL has submitted that the actual capital expenditure incurred during FY 2017-18 is Rs. 629.31 Crore which is lower by Rs. 155.12 Crore than what was approved in the MYT Order dated 31st March, 2017. UGVCL has explained the scheme wise deviation in the capital expenditure as below:

- 1. Normal Development:** Under the head Normal Development Scheme, generally expenses are incurred to meet with the Supply Obligation. During the FY 2017-18, growth of the Company in terms of number of consumers and load has exceeded

than envisaged, therefore, company had to incur Rs. 241.70 Crore against approved Rs. 175.00 Crore.

2. **System Improvement Scheme:** The system improvement scheme i.e. S.I. scheme include various activities such as bifurcation of feeders, overhead to underground cable conversion, new substation link line work, H.T. Aerial bunch conductor, replacement of deteriorated conductor, L.T. Aerial bunch conductor and distribution transformer review etc. The S.I. scheme is required for providing quality and reliable power supply to our esteemed consumers. As per the capital expenditure report for F.Y. 2017-18, the approved cost for system improvement scheme is Rs. 35.00 Crore against which UGVCL has incurred Rs. 24.54 Crore for activities related to S.I. scheme. The reduction in expenditure with reference to the approved is due to the fact that UGVCL has carried out replacement of deteriorated conductor in SKJY scheme and Feeder bifurcation work in IPDS and DDUGJY scheme.
3. **Under Ground cables scheme:** In Underground cables scheme, work related to conversion of overhead to underground network in mahanagarpalika area, approved cost for this scheme is Rs. 100 Crore. In this scheme, necessary DPR was not approved hence the work was not carried out in year 2017-18.
4. **Other (VDS) Scheme:** Agriculture Voluntary disclosure scheme (AG VDS) was announced in year 2017-18. Expenditure of Rs. 1.02 Crore is incurred for releasing the load of Agriculture connection under the scheme.
5. **RE Scheme:** Release of Agriculture Connection is a continuous process and it is governed by Government of Gujarat by monitoring the Fund, availability of Energy and Infrastructure. Under the head RE Schemes, the Company releases Agriculture category connections. The Company has invited applications for switch over to Tatkal Scheme from the registered pending applicants in the year 2017-18 in addition to TASP and Normal scheme. During the FY 2017-18, UGVCL has planned to clear the application registered in Year 2012 to 2016 in TASP, SPA and Dark Zone Scheme. During the FY 2017-18, Company has released 14909 Agriculture connections. In TASP Scheme, 2068 wells are electrified against the target of 2000 wells, the financial expenditure incurred per Ag well is decreased, hence the deviation observed. In SCSP AG well scheme it is directed to clear all

the pending applications of SC beneficiaries so the booked amount is increased. In Kutirjyoti (Lighting) and electrification of Hutments (Zupadpatti) scheme the more number of beneficiaries came forward for getting Household electrification, hence the expenditure increased. In Darkzone and AG Normal Well (SPA) scheme the cost is decreased with reference to the approved as the network has been extended year by year, hence actual average cost per Ag. Wells has been decreased even though physically 100 % Agriculture well target was completed by the UGVCL during FY 2017-18. Application registered under dark zone scheme under dark zone area was pending since 1990 due to Ban in agriculture connection in Dark Zone area. Government of Gujarat has lifted the ban for Dark Zone area vide letter no ELC/2012/773/K1/708 dated 12.04.2012. Accordingly UGVCL has processed all pending application as per the guidelines issued for the scheme. Company has released 13136 Nos. of Ag conn. in Dark Zone Scheme from the year 2012-13 and cleared all the old pending applications. At present status there is no pending application registered up to 31.12.2015 at UGVCL level.

6. **SCADA/DMS Project:** SCADA/DMS helps in achieving the objective of supply of quality power, faster identification of faults & early restoration of power, proper metering, strategic placement of capacitor banks & switches and proper planning & designing of distribution networks and the real time monitoring & control of the distribution system. SCADA/DMS project is being implemented in Ahmedabad Peri area. Total loan of Rs. 33.82 Crore is sanctioned under Part A of RAPDRP and covers all distribution substations under the project area & 11kV urban feeder network. For deriving maximum benefits, it is essential that necessary up gradation of distribution Substation & 11/22 kV network is being carried out to meet the SCADA/DMS requirements. M/s Chemtrols India Ltd is selected as SIA for all Gujarat DISCOMs. M/s Chemtrols was issued order by UGVCL on 1st April, 2013. At present installation of FRTUs are under progress. The actual cost incurred is Rs. 7.54 Crore (R-APDRP Part-A plus SCADA and other I.T. expenditure) against approved cost of Rs. 0.21 Crore. the PO was awarded in Apr-13, but the SCADA implementation work for substation depend upon the GETCO support and also on the installation, commissioning and testing work of RMUs and associated H.T. infrastructure work such as underground cable work as well as the said SCADA project work involves high techno skill and being as first project, hence there is a dependence on the SCADA implementing agency. So, work has been carried out

during 2017-18. Further, payment shall be made to M/s Chemtrols based on the achievement of the milestones of this turnkey project.

7. **Smart Grid Project:** The broad scope of the pilot project is (1) AT&C Loss Reduction (2) Peak Load Management, (3) AMI for Industrial, commercial & residential consumers, (4) Outage Management and (5) Demand Side Management and Demand Response and ToU tariff for consumers. The PO was awarded to M/s Genus power in June-17. M/s Genus has started activity like site survey, consumer details gathering after 3 months and mobilization advance has been given to M/s Genus in Dec-17. The actual cost incurred is Rs. 3.46 Crore against approved cost of Rs. 14.00 Crore. The timeline for completion of the project is 18 months and M/s Genus has started hardware and meter purchasing after Apr-18. So only Rs. 3.46 Crore has been expended during 2017-18. At present, total 20358 single phase and 2021 three phase meters are installed. Control room hardwares are installed and only MDM software application work is in process.
8. **High Voltage Distribution System (HVDS):** The Company is having large nos. of Low Tension category consumers. To eliminate low voltage distribution and to have better voltage profile as well as for reduction of technical loss and associated commercial loss, the Company has proposed to shift over on High Voltage Distribution System by erecting small capacity transformers matching with the connected load of individual consumer or very small group of consumers in a phased manner. The Company has started to do some of the work on its own. The Company is desirous to implement HVDS scheme in its distribution area and shall endeavour to achieve the approved target. The cost is decreased with reference to the approved due to as the L.T. network has been reduced year by year.
9. **Solar Water Pumping:** Government of Gujarat has introduced solar pumping system. In this scheme agriculture application registered under general scheme, TASP scheme, Dark zone scheme can be switched over into solar water agriculture pumping scheme. Agriculture application registered up to 3.0 HP , 5.0 HP and 7.5 HP can be switched over into solar scheme. This scheme is turnkey base scheme. There are 475 Nos. of solar pump installation work carried out during FY 2017-18. During FY 2017-18, Rs. 22.65 Crore expenditure has been incurred.

10. **Demand Side Management:** Government of Gujarat has been started domestic efficient lighting programme. This programme is implemented by EESL at Gujarat to provide energy efficient 9W LED lighting for grid connected consumers in the state of Gujarat on 26.05.2016 for General Lighting Purpose (GLP), Manufacturing and Service Industries (MSI) and Residential Category consumers of DISCOM in the entire operational area after approval of Hon'ble Commission. At present Up to March-2018, Total 79.50 lacs of 9W LED bulb have been sold in UGVCL licensee area. The claim may be raised by EESL during this Year. The combo project of replacement of 50W five star rated energy efficient fan and 20W LED tube light has been started by Government of Gujarat for grid connected consumers in the state of Gujarat on 26.01.2017. Hence UGVCL has projected 2 Crore, for F.Y. 2019-20 and F.Y. 2020-21. This programme is also implemented by EESL at Gujarat. At present Up to March-2018, Total 2.65 lacs of 20W LED tube light and 1.62 lac of 50W five star rated energy efficient fan has been sold in UGVCL licensee area. No any ongoing Project at present in this activity, but expenditure is done as per Invoice received from EESL of "UJALA Gujarat" project, hence total approved amount is not used.
11. **Din Dayal Upadhyay Gramin Jyoti Yojna (DDUGJY):** It is to state that, under this scheme various activities were covered like New Feeder / Feeder Bifurcation, LT Line Augmentation, Aerial Bunch Cables, Consumer Meter Replacement, New Connections, HVDS etc. DPR was submitted in March – 2015 based on the SOR rate which was approved in May – 2016. Funding mechanism for the said scheme is 60% grant from REC and 40% from own fund. Hence, considering the same, Capital Expenditure was proposed. Further, for the proposed work, tenderization process done by respective field offices and letter of award given to contractors. Based on the actual labour and supply rate expenditure was booked, which was less than the proposed rate of DPR. Hence, actual capital expenditure is decreased from Rs. 60.00 Crore to Rs. 43.65 Crore due to actual execution of work based on the rates of supply and labour work orders, even though progress of scheme was 72%.
12. **Integrated Power Development Scheme (IPDS):** It is to state that, under this scheme various activities were covered like New Feeder / Feeder Bifurcation, Underground Cable work, Distribution Transformers, LT Line Augmentation, Aerial Bunch Cables, Consumer Meter Replacement, New Connections, HVDS etc. DPR

was submitted in February – 2015 based on the SOR rate which was approved in Mar – 2016. Funding mechanism for the said scheme is 60% grant from REC and 40% from own fund. Hence, considering the same, Capital Expenditure was proposed. Further, for the proposed work, tenderization process done by respective field offices and letter of award given to contractors. Based on the actual labour and supply rate expenditure was booked, which was less than the proposed rate of DPR. Further, for the partial turnkey work of overhead to underground network electrification work, AT was issued in June-18 which covers work of almost Rs. 27.0 Crore. Hence, actual capital expenditure is decreased from Rs. 51.00 Crore to Rs. 40.77 Crore due to actual execution of work based on the rates of supply and labour work orders, even though progress of scheme was 62%.

Commission's Analysis

The capital expenditure approved in MYT Order dated 31st March, 2017 for FY 2017-18 is Rs. 784.43 Crore. The actual capital expenditure incurred is Rs. 629.31 Crore, which is lower by Rs. 155.12 Crore than the CAPEX approved in the MYT Order dated 31st March 2017.

The Commission observed that there is good growth in terms of number of consumers and load and therefore there is an increase in expenditure under the Normal Development scheme as compared to the amount approved in the MYT, the company incurred Rs. 241.70 Crore as against 175.00 Crore approved. In the underground cable work as the necessary DPR was not approved there was no expenditure. Further it is observed that in IPDS and DDUGJY capital expenditure was less than the planned expenditure by Rs. 10.23 Crore and Rs. 16.35 Crore respectively. UGVCL submitted that very little work like capital expenditure on replacement of single phase meters and SMC box replacements was carried and as a result capex booking against projection is less.

The Commission further observed that actual expenditure was less than the target expenditure as work performed in schemes like HVDS in selected s/dn and TAPS (Wells) was less than targeted work. UGVCL has submitted that expenditure under electrification of hutments and kutirjyoti scheme was Rs. 12.21 Crore and Rs. 59.25 Crore respectively.

The Commission also looked at 'Dark Zone ' scheme and observed that expenditure under this scheme was Rs. 90.18 Crore as compared to approved expenditure of Rs.

150.00 Crore, the actual average cost per Ag well is decreased even though physically 100% Agriculture well target was completed.

The Commission also observed that UGVCL has incurred capital expenditure under Scheme for Solar Pumps and DSM.

The Commission further observed that most of the capital expenditure schemes by the DISCOMs are of continuous and on-going nature. These are based on yearly targets set for meeting the supply obligation, providing quality and reliable power to the consumers, reduction in losses, release of agriculture connections, etc. Generally, there are no pre-defined timelines as the schemes are further bifurcated into various works under the scheme. Nevertheless, the licensee shall be more realistic in projecting the capital expenditure.

The Commission, verified the audited annual accounts of UGVCL and has observed that UGVCL has incurred actual capital expenditure of Rs. 629.31 Crore and the capitalisation of Rs. 672.04 Crore. The Commission, therefore approves the same in the truing up for FY 2017-18.

4.6.2.1 Funding of Capex

Petitioner's Submission

The funding of actual capitalisation is done through various sources categorised under four headings namely: Consumer Contribution, Grants, Equity and Debt. The detailed breakup of funding of capitalised asset during FY 2017-18 is given in the Table below:

Table 4-26: Proposed Capitalisation and sources of funding by UGVCL for FY 2017-18

(Rs. Crore)

| Sr. No. | Schemes | Approved for 2017-18 in MYT Order | Claimed in truing up for 2017-18 |
|---------|-----------------------------|-----------------------------------|----------------------------------|
| 1 | Capitalization | 784.43 | 672.04 |
| 2 | Less: Consumer Contribution | 89.95 | 117.84 |
| 3 | Less: Grants | 277.10 | 33.36 |
| 4 | Balance CAPEX | 417.38 | 520.84 |
| 5 | Debt @ 70% | 292.17 | 364.59 |
| 6 | Equity @ 30% | 125.21 | 156.25 |

Commission's Analysis

It is observed that UGVCL has claimed the funding of Capitalization net of Consumer Contribution and Govt. Grant through mix of Debt and Equity by observing the 70:30 ratio as provided in the GERC (MYT) Regulations, 2016.



The Commission has noted that under Government Grants and Consumer Contribution MGVCL has considered Rs. 33.36 Crore and Rs. 117.84 Crore respectively, which are in conformity with audited annual accounts for FY 2017-18.

The CAPEX, therefore, approves the funding of Capitalization as given in the Table below:

Table 4-27: Approved Capitalisation and sources of funding in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Schemes | Approved in the MYT Order | Actual Claimed in Truing up | Approved for Truing up |
|---------|-------------------------------|---------------------------|-----------------------------|------------------------|
| 1 | Capex | 784.43 | 629.31 | 629.31 |
| 2 | Capitalization | 784.43 | 672.04 | 672.04 |
| 3 | Less: Consumer Contribution | 89.95 | 117.84 | 117.84 |
| 4 | Less: Grants | 277.10 | 33.36 | 33.36 |
| 5 | Balance Capitalization | 417.38 | 520.84 | 520.84 |
| 6 | Debt @ 70% | 292.17 | 364.59 | 364.59 |
| 7 | Equity @ 30% | 125.21 | 156.25 | 156.25 |

4.6.3 Depreciation

UGVCL has claimed Rs. 262.25 Crore towards depreciation in the truing up for FY 2017-18 against the depreciation of Rs. 331.74 Crore approved in the MYT Order dated 31st March, 2017.

Petitioner's submission

The Petitioner submitted that it had been charging the Depreciation on the fixed assets of the Company, on the useful life of the assets at the rates prescribed under Schedule XIV to the Companies Act, 1956. The Company being engaged in the business of Electricity Distribution, the provisions of the Electricity Act, 2003 would be applicable and would supersede the provisions of the Companies Act, 2013.

While claiming Depreciation UGVCL has quoted the provisions of the GERC (MYT) Regulations, 2016 and the directives given by the Commission in the MYT Order dated 31st March, 2017 as given hereunder:-

In case of Depreciation, the MYT Regulations, 2016 provides that-

“Depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure I to these Regulations:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets:



Provided further that for a Generating Company or a Transmission Licensee or SLDC or a Distribution Licensee formed as a result of a Transfer Scheme, the depreciation on assets transferred under the Transfer Scheme shall be charged as per rates specified in these Regulations for a period of 12 years from the date of Transfer Scheme, and thereafter depreciation will be spread over the balance useful life of the assets”

MYT Order dated 31st March, 2017:

“The petitioner came into existence through Transfer Scheme of the State Government effective from 1st April 2005 and the period of 12 years is getting completed on 31.03.2017. Accordingly, the petitioner is required to consider depreciation for the FY 2017-18 in accordance with the MYT Regulations, 2016 as stated above. At present the Commission has considered the depreciation charges as projected by the petitioner for the MYT Control Period, but the petitioner is required to book depreciation charges in accordance with the MYT Regulations. The Commission will consider and allow depreciation charges for FY 2017-18 in accordance with the MYT Regulations, 2016.”

Accordingly, UGVCL has calculated depreciation for FY 2017-18 in accordance with the provisions of the MYT Regulations, 2016 and the aforementioned directives of the Hon’ble Commission:

Table 4-28: Fixed assets & depreciation computed by UGVCL for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in MYT Order | Actual Claimed in Truing up |
|---------|--|-----------------------|-----------------------------|
| 1 | Gross Block at the Beginning of the year | 6019.33 | 4223.75 |
| 2 | Additions during the Year (Net) | 784.43 | 672.04 |
| 3 | Depreciation for the Year | 331.74 | 262.25 |
| 4 | Average Rate of Depreciation | 5.17% | 5.75% |

UGVCL has further submitted that actual depreciation for FY 2017-18, as against the value approved in the MYT, resulted in a net uncontrollable gain of Rs. 69.49 Crore as shown in the Table below:



Table 4-29: Gain / Loss due to depreciation claimed in the truing up for FY 2017-18
 (Rs. Crore)

| Particulars | Approved in MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|--------------|-----------------------|-----------------------------|---|---|
| Depreciation | 331.74 | 262.25 | | 69.49 |

Commission's Analysis

It is observed that the Petitioner has taken Opening GFA as per Audited accounts which is readjusted as per Ind AS. However, the Commission has considered the Opening Balance of GFA as per last true up for FY 2016-17 and accordingly the Closing Balance of GFA as on 31.03.2017 has been considered as Opening Balance of GFA as on 1.04.2017.

The net addition during the year of Rs. 672.04 Crore is confirmed from the audited annual accounts for FY 2017-18. The depreciation as per P&L Account for FY 2017-18 is Rs. 262.25 Crore.

The Commission, accordingly, approves Depreciation at Rs. 262.25 Crore in the truing up for FY 2017-18 as shown in the Table below:

Table 4-30: Approved fixed assets & depreciation for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in truing up |
|---------|--|---------------------------|-----------------------|
| 1 | Gross Block at the Beginning of the year | 6019.33 | 5680.50 |
| 2 | Additions during the Year (Net) | 784.43 | 672.04 |
| 3 | Gross Block at the end of the year | 6803.76 | 6352.54 |
| 4 | Depreciation for the Year | 331.74 | 262.25 |
| 5 | Average Rate of Depreciation | 5.17% | 4.36% |

The amount of depreciation is dependent on the quantum of capitalisation, rate of depreciation, etc. The Commission has, therefore, considered the parameters impacting depreciation as uncontrollable.

The Commission, accordingly, approves the Gain / Loss on account of depreciation in the truing up for FY 2017-18, as detailed in the Table below:

Table 4-31: Gain / Loss due to Depreciation approved in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|--------------|---------------------------|-----------------------|---|---|
| Depreciation | 331.74 | 262.25 | | 69.49 |

4.6.4 Interest and Finance charges

UGVCL has claimed Rs.127.71 Crore towards interest and finance charges in the truing up for FY 2017-18, as against Rs.136.61 Crore approved in the MYT Order dated 31st March, 2017 as shown in the Table below:

Table 4-32: Interest and Finance Charges claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation |
|------------------------------|---------------------------|-----------------------------|-----------|
| Interest and Finance Charges | 136.61 | 127.71 | 8.90 |

Petitioners' submission

UGVCL has submitted that for assessing the actual Interest charges on loans in FY 2017-18, they have considered Opening Balance of loans for FY 2017-18 same as the Closing Balance of Loans approved by the Commission for FY 2016-17 in the Tariff Order dated 31st March, 2018. The loan addition in FY 2017-18 is computed at Rs. 364.59 Crore towards funding of CAPEX for FY 2017-18. As per the GERC (MYT) Regulations, 2016 repayment during the year has been considered equal to the depreciation for the financial year.

UGVCL has considered the weighted average rate of interest of 8.54% as against 7.27% approved in the MYT Order dated 31st March, 2017 for FY 2017-18.

In addition to the above, UGVCL has considered the interest on security deposits as per the provisions of the GERC (MYT) Regulations, 2016. The details of interest and finance charges claimed by UGVCL are as given in the Table below:

Table 4-33: Interest and Finance Charges claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation |
|---------|---------------------------|---------------------------|-----------------------------|-----------|
| 1 | Opening Loans | 603.62 | 560.29 | |
| 2 | Additions during the year | 292.17 | 364.59 | |



| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Deviation |
|---------|---|---------------------------|-----------------------------|-------------|
| 3 | Repayment during the year | 331.74 | 262.25 | |
| 4 | Closing Loans | 564.05 | 662.63 | |
| 5 | Average Loans | 583.84 | 611.46 | |
| 6 | Interest on Loan | 42.44 | 52.23 | (9.79) |
| 7 | Interest on Security Deposit | 93.33 | 75.48 | 17.85 |
| 8 | Guarantee Charges | 0.83 | - | 0.83 |
| 9 | Total Interest & Finance Charges | 136.61 | 127.71 | 8.89 |
| 10 | Weighted Average Rate of Interest | 7.27% | 8.54% | |

UGVCL has further submitted that interest and finance charges are categorised as uncontrollable as per the GERC (MYT) Regulations, 2016 and accordingly worked out deviation in the actual vis-à-vis the approved expenses under uncontrollable factors, as given in the Table below:

Table 4-34: Gain / (Loss) claimed due to Interest & Finance Charges for FY 2017-18
(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|------------------------------|---------------------------|-----------------------------|---|---|
| Interest and Finance Charges | 136.61 | 127.71 | | 8.90 |

Commission's Analysis

The Commission observed that the Closing Balance of Loans approved in true up Order for FY 2016-17 is Rs. 560.29 Crore and the same has to be taken as the Opening Loans Balance for FY 2017-18.

The capitalisation and funding of CAPEX have been approved for FY 2017-18, as per Table 4.27 of this Order.

The normative addition of loans during FY 2017-18 has been considered at Rs. 364.59 Crore as approved in Table 4.27 of this Order. The interest on security deposits of Rs. 75.48 Crore is as per audited accounts for FY 2017-18.

The repayment of loan is Rs. 262.25 Crore in the truing up for FY 2017-18, which is equivalent to the depreciation, approved in Table 4.30 of this Order. The guarantee charges and other finance charges, as per audited accounts for FY 2017-18 are Rs. Nil.

UGVCL has submitted details of the actual loan portfolio and the rate of interest applicable for each loan portfolio for FY 2017-18. The Commission has worked out the

weighted average rate of interest as 9.96% in accordance with the Regulation 38 of the GERC (MYT) Regulations, 2016.

Taking all these factors into consideration, the interest and finance charges have been computed as detailed in the Table below:

Table 4-35: Interest and Finance Charges approved by the Commission in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in Truing up |
|---------|-----------------------------------|---------------------------|-----------------------|
| 1 | Opening Loans | 603.62 | 560.29 |
| 2 | Additions during the year | 292.17 | 364.59 |
| 3 | Repayments during the year | 331.74 | 262.25 |
| 4 | Closing Loans | 564.04 | 662.63 |
| 5 | Average Loans | 583.84 | 611.46 |
| 6 | Interest on Loan | 42.44 | 60.92 |
| 7 | Interest on Security Deposit | 93.33 | 75.48 |
| 8 | Guarantee Charges | 0.83 | - |
| 9 | Total Interest & Finance Charges | 136.60 | 136.40 |
| 10 | Weighted Average Rate of Interest | 7.27% | 9.96% |

The Commission, accordingly, approves the interest and finance charges at Rs. 136.40 Crore in the truing up for FY 2017-18.

As per the GERC (MYT) Regulations, 2016, the Commission is of the view that the parameters which impact interest and finance charges should be treated as uncontrollable. The Commission, accordingly, approves the Gain / Loss on account of interest and finance charges in the truing up for FY 2017-18, as detailed in the Table below:

Table 4-36: Gain / (Loss) approved in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in Truing up | Deviation | Gain/(Loss) due to Uncontrollable Factors |
|------------------------------|---------------------------|-----------------------|-----------|---|
| Interest and Finance charges | 136.60 | 136.40 | | 0.21 |

4.6.5 Interest on Working Capital

UGVCL has not claimed any interest on working capital in the truing up for FY 2017-18, against Nil provision approved in the MYT Order dated 31st March, 2017 as detailed in the Table below:



Table 4-37: Interest on Working Capital claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|-----------------------------|---------------------------|-----------------------------|
| Interest on Working Capital | - | - |

Petitioner's submission

UGVCL has submitted that working capital has been calculated and the rate of interest is considered as the rate equal to the weighted average of the 1 year MCLR of State Bank of India during the year plus 250 basis points, as per the GERC (MYT) Regulations, 2016. This rate works out to 10.50%.

The detailed computation of Working Capital requirement as per the provisions of the GERC (MYT) Regulations, 2016 and interest on working capital is as given in the Table below:

Table 4-38: Interest on working capital claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|--|---------------------------|-----------------------------|
| 1 | O&M Expenses | 36.92 | 52.00 |
| 2 | Maintenance Spares | 60.19 | 42.00 |
| 3 | Receivables | 816.28 | 827.00 |
| 4 | Less: Amount held as Security Deposit from Consumers | 1,204.28 | 1,200.00 |
| 5 | Total Working Capital | (290.89) | (279.00) |
| 6 | Rate of Interest on Working Capital | 11.70% | 10.50% |
| 7 | Interest on Working Capital | - | - |

Commission's Analysis

The Commission has examined the computation of normative working capital under the GERC (MYT) Regulations, 2016. The working capital requirement works out to be negative during FY 2017-18. As the working capital requirement works out to be negative, there cannot be any interest on working capital. Accordingly, neither any interest is claimed by UGVCL nor any interest is approved by the Commission.

The detailed computation of the Working Capital and interest thereon is given in the Table below:



Table 4-39: Interest on working capital approved in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Actual Claimed in Truing up | Approved in Truing up |
|---------|--|-----------------------------|-----------------------|
| 1 | O&M Expenses | 52.00 | 51.94 |
| 2 | Maintenance Spares | 42.00 | 56.81 |
| 3 | Receivables | 827.00 | 827.40 |
| 4 | Less: Amount held as Security Deposit from Consumers | 1,200.00 | 1,200.10 |
| 5 | Total Working Capital | (279.00) | (263.95) |
| 6 | Rate of Interest on Working Capital | 10.50% | 10.50% |
| 7 | Interest on Working Capital | - | - |

The Commission, accordingly, approves the interest on working capital as Nil in the truing up for FY 2017-18.

4.6.6 Bad Debts Written Off

UGVCL has claimed Rs. 0.31 Crore towards bad debts written off in the truing up for FY 2017-18, as against Rs. 0.70 Crore approved in the MYT dated 31st March 2017 as given in the Table below:

Table 4-40: Bad Debts claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|-----------------------|---------------------------|-----------------------------|
| 1 | Bad Debts Written Off | 0.70 | 0.31 |

Petitioner's submission

UGVCL submitted that comparison of the actual Bad Debts Written Off with the amount approved in the MYT Order dated 31st March, 2017 resulted in a gain of Rs. 0.39 Crore on account of controllable factors, as shown in the Table below:

Table 4-41: Bad Debts Written Off for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MTR Order | Actual Claimed in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|-----------------------|---------------------------|-----------------------------|---|---|
| 1 | Bad Debts Written Off | 0.70 | 0.31 | 0.39 | |

Commission's Analysis

The Commission has observed that UGVCL has claimed Rs. 0.31 Crore towards Bad & Doubtful Debts Written off during FY 2017-18.



The Commission verified from the audited annual accounts that UGVCL has made a provision of Rs. 7.18 Crore for bad debts and has also written off Rs. 0.31 Crore towards Bad & Doubtful Debts. Regulation 94.9 of the GERC (MYT) Regulations, 2016 specifies that the Commission may allow bad debts written off as a pass through in the aggregate revenue requirement subject to prudence check. The Commission notes that the Provision for Bad & Doubtful Debts is towards the future write offs and accordingly, the actual write offs only are considered as a pass through in the ARR as per the GERC (MYT) Regulations, 2016.

The Commission, therefore, approves Rs. 0.31 Crore towards bad and doubtful debts written off in the truing up for FY 2017-18.

The deviation on account of bad debts written off is Rs. 0.39 Crore and the Commission considers the same as gain due to controllable factors, as detailed in the Table below:

Table 4-42: Gain/ (Loss) due to Bad Debts approved in the Truing up for FY 2017-18
(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Approved in Truing up | Gain/(Loss) due to Controllable Factors | Gain/(Loss) due to Uncontrollable Factors |
|---------|-----------------------|---------------------------|-----------------------|---|---|
| 1 | Bad Debts Written Off | 0.70 | 0.31 | 0.39 | |

4.6.7 Return on Equity

UGVCL has claimed Rs. 179.73 Crore towards return on equity in the truing up for FY 2017-18 as against Rs. 181.11 Crore approved in the MYT Order dated 31st March 2017, as given in the Table below:

Table 4-43: Return on Equity claimed by UGVCL in the truing up for FY 2017-18
(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|------------------|---------------------------|-----------------------------|
| Return on Equity | 181.11 | 179.73 |

Petitioner's submission

UGVCL has computed return on equity considering the rate of 14% on the average of opening and closing equity, taking into account the additions during the year as given in the Table below:

Table 4-44: Return on Equity claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|------------------------------|---------------------------|-----------------------------|
| 1 | Opening Equity | 1231.02 | 1205.68 |
| 2 | Additions during the year | 125.21 | 156.25 |
| 3 | Closing Equity | 1356.23 | 1361.93 |
| 4 | Average Equity | 1293.63 | 1283.81 |
| 5 | Rate of Return on the Equity | 14% | 14% |
| 6 | Return on Equity | 181.11 | 179.73 |

Commission's analysis

UGVCL has furnished the Opening Equity of Rs. 1205.68 Crore for FY 2017-18 and submitted Equity addition as Rs. 156.25 Crore during FY 2017-18. The actual Opening Equity as on 01.04.2017 was Rs. 1205.68 Crore being the Closing Balance of Equity approved in the True Up for FY 2016-17. The Commission has approved the normative Equity addition of Rs. 156.25 Crore in Table 4.27 of this Order

The Commission has computed the Return on Equity in the truing up for FY 2017-18 considering the rate of 14% as provided in the GERC (MYT) Regulations, 2016 as detailed in the Table below:

Table 4-45: Return on Equity approved for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Actual Claimed in Truing up | Approved in Truing up |
|---------|---------------------------|-----------------------------|-----------------------|
| 1 | Opening Equity | 1205.68 | 1205.68 |
| 2 | Additions during the year | 156.25 | 156.25 |
| 3 | Closing Equity | 1361.93 | 1361.93 |
| 4 | Average Equity | 1283.81 | 1283.81 |
| 5 | Rate of Return on Equity | 14.00% | 14.00% |
| 6 | Return on Equity | 179.73 | 179.73 |

The Commission approves the Return on Equity at Rs. 179.73 Crore in the truing up for FY 2017-18.

It is considered that deviation is due to uncontrollable factors as the return on equity is being allowed on a normative basis and the quantum of equity addition in the year depends upon the capital expenditure and the capitalization achieved during the year.

As mentioned in the GERC (MYT) Regulations, 2016, the factors impacting the Return on Equity are considered uncontrollable. The Commission, accordingly, approves the Gain and Loss, on account of Return on Equity, in the Truing up for FY 2017-18 as uncontrollable.



The Commission, accordingly, approves the Gain / Loss on account of Return on Equity in the truing up for FY 2017-18, as detailed in the Table below:

Table 4-46: Approved Gain / Loss due to Return on Equity in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in Truing up | Gain/(Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|------------------|---------------------------|-----------------------|---|---|
| Return on Equity | 181.11 | 179.73 | 0 | 1.37 |

4.6.8 Taxes

UGVCL has claimed Rs. 14.38 Crore towards income tax for FY 2017-18, as against Rs. 17.14 Crore approved in the MYT Order dated 31st March, 2017, as given in the Table below:

Table 4-47: Taxes claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|------------------|---------------------------|-----------------------------|
| Income Tax (MAT) | 17.14 | 14.38 |

Petitioner's submission

UGVCL has submitted that income tax being a statutory expense, any variation on this account is uncontrollable. UGVCL has claimed a gain of Rs. 2.76 Crore on this account, as given in the Table below:

Table 4-48: Gain / (Loss) claimed due to provision for taxes for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain / (Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|------------------|---------------------------|-----------------------------|---|---|
| Income Tax (MAT) | 17.14 | 14.38 | | 2.76 |

Commission's Analysis

The Commission has obtained the copies of the Challans of Tax payer's counterfoil, 26 AS and also verified from the audited annual accounts of the company and found that the licensee has paid/provided income tax of Rs. 14.38 Crore.

The Commission, accordingly, approves the Income Tax of Rs. 14.38 Crore in the truing up for FY 2017-18.



With regard to the computation of Gain/(Loss), Regulation 22 of the GERC(MYT) Regulations, 2016 considers variation in taxes on income as uncontrollable. The Commission, accordingly, approves the Gain/(Loss) on account of tax on income in the truing up for FY 2017-18, as detailed in the Table below:

Table 4-49: Approved Gain / Loss due to tax in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in Truing up | Gain /(Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|---------------|---------------------------|-----------------------|--|---|
| Tax on Income | 17.14 | 14.38 | | 2.76 |

4.6.9 Non-Tariff Income

UGVCL has claimed the actual Non-Tariff Income at Rs.138.68 Crore in the truing up for FY 2017-18, as against Rs. 146.76 Crore approved in the MYT Order dated 31st March 2017, as detailed in the Table below:

Table 4-50: Non-Tariff Income claimed by UGVCL in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|-------------------|---------------------------|-----------------------------|
| Non-Tariff Income | 146.76 | 138.68 |

Petitioner's submission

The Petitioner has Claimed the actual Non-Tariff Income of Rs. 138.68 Crore, as against Rs. 146.76 Crore approved in the MYT Order dated 31st March, 2017. This has resulted in a uncontrollable gain of Rs. 8.08 Crore, as detailed in the Table below:

Table 4-51: Gain / (Loss) claimed due to Non-Tariff Income for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Actual Claimed in Truing up | Gain /(Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|-------------------|---------------------------|-----------------------------|--|---|
| Non-Tariff income | 146.76 | 138.68 | | 8.08 |

Commission's Analysis

The Commission observed that as per audited annual accounts the Non-Tariff Income is Rs. 139.78 Crore which includes interest on staff loans (Rs. 1.10 Crore) for FY 2017-18.



The Commission, approves the Non-Tariff Income at Rs. 138.68 Crore after negating the interest on staff loan of Rs. 1.10 Crore in the truing up for FY 2017-18.

The deviation in non-tariff income is considered as uncontrollable. The Commission, accordingly, approves the Gain / losses on account of non-tariff income in the truing up for FY 2017-18, as detailed in the Table below:

Table 4-52: Approved Gain / losses due to Non-Tariff Income in the truing up for FY 2017-18

(Rs. Crore)

| Particulars | Approved in the MYT Order | Approved in Truing up | Gain / (Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|-------------------|---------------------------|-----------------------|---|---|
| Non-Tariff income | 146.76 | 138.68 | | 8.08 |

4.7 Revenue from Sale of Power

UGVCL has claimed the total revenue of Rs. 9928.81 Crore in the truing up for FY 2017-18 as against Rs. 9795.42 Crore approved in the MYT Order dated 31st March, 2017 as detailed in the Table below:

Table 4-53: Revenue submitted in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Approved in the MYT Order | Actual Claimed in Truing up |
|---------|--|---------------------------|-----------------------------|
| 1 | Revenue from Sale of Power | 9007.01 | 9129.81 |
| 2 | Other Income (Consumer related) | 252.35 | 256.74 |
| 3 | Total Revenue excluding subsidy (1+2) | 9259.36 | 9386.55 |
| 4 | Agriculture Subsidy | 536.06 | 542.26 |
| 5 | Total Revenue including subsidy (3+4) | 9795.42 | 9928.81 |

Commission's Analysis

The Commission has verified the total revenue for FY 2017-18 from the audited accounts. The actual revenue from category-wise sales, as per audited accounts, is Rs. 9311.51 Crore. This includes the revenue from sale of power to GUVNL of Rs. 87.55 Crore and DSM charges Income of Rs. 94.16 Crore. Since these have been adjusted against the power purchase cost for the FY 2017-18, as shown in Table 4.9 of this Order, the net revenue from sale of power works out to Rs. 9129.81 Crore.

It is further observed that other operating income as per audited annual accounts is Rs. 825.49 Crore, which includes Rs. 26.49 Crore towards Delayed Payment Charges

and Rs. 542.26 Crore towards Agriculture Subsidy. After excluding these two elements, the other consumer related income works out to of Rs. 256.74 Crore

The Commission has considered Agriculture Subsidy separately while Delayed Payment Charges Income and Delayed Payment Charges Expenditure are not considered as per the GERC (MYT) Regulations, 2016.

The aforesaid Agriculture Subsidy has been claimed as a separate item of revenue.

Table 4-54: Revenue approved in the truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Particulars | Actual Claimed in Truing up | Approved in Truing up |
|---------|--|-----------------------------|-----------------------|
| 1 | Revenue from Sale of Power | 9129.81 | 9129.81 |
| 2 | Other income (Consumer related) | 256.74 | 256.74 |
| 3 | Total revenue excluding subsidy (1+2) | 9386.55 | 9386.55 |
| 4 | Agriculture Subsidy | 542.26 | 542.26 |
| 5 | Total revenue including subsidy (3+4) | 9928.81 | 9928.81 |

The Commission, accordingly, approves the total revenue of Rs. 9928.81 Crore, including consumer related income of Rs. 256.74 Crore and Agriculture Subsidy of Rs. 542.26 Crore in the truing up for FY 2017-18.

4.8 ARR approved in the truing up

The Commission reviewed the performance of UGVCL under Regulation 21 of the GERC (MYT) Regulations, 2016, with reference to the audited accounts for FY 2017-18. The Commission computed the Gain/(Loss)for FY 2017-18, based on the truing up for each of the component discussed in the above paragraphs.

The Aggregate Revenue Requirement (ARR) approved in the MYT Order dated 31st March 2017, actual claimed in truing up and approved for truing up and Gain/(Loss)computed in accordance with the GERC (MYT) Regulations, 2016 are given in the Table below:

Table 4-55: ARR approved in truing up for FY 2017-18

(Rs. Crore)

| Sr. No. | Annual Revenue Requirement | Approved in the MYT Order | Actual Claimed in Truing up | Approved in Truing up | Deviation +/- | Gain / (Loss) due to Controllable Factors | Gain / (Loss) due to Uncontrollable Factors |
|---------|--------------------------------------|---------------------------|-----------------------------|-----------------------|-----------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6=(3-5) | 7 | 8 |
| 1 | Cost of Power Purchase | 8866.95 | 9004.23 | 9004.23 | (137.28) | 150.64 | (287.92) |
| 2 | O&M Expenses | 443.05 | 623.31 | 623.31 | | | |
| 2.1 | Employee Cost | 423.58 | 531.92 | 531.92 | (108.34) | (82.56) | (25.78) |
| 2.2 | Repairs & Maintenance Expenses | 88.50 | 61.36 | 61.36 | 27.14 | 27.14 | |
| 2.3 | Administration & General Expenses | 75.69 | 99.22 | 99.22 | (23.53) | (23.53) | |
| 2.4 | Other Debits | - | - | - | - | | - |
| 2.5 | Other Expenses Capitalised | (144.72) | (69.19) | (69.19) | (75.53) | | (75.53) |
| 3 | Depreciation | 331.74 | 262.25 | 262.25 | 69.49 | - | 69.49 |
| 4 | Interest and Finance Charges | 136.61 | 127.71 | 136.40 | 0.21 | - | 0.21 |
| 5 | Interest on working capital | - | - | | - | - | - |
| 6 | Bad Debts Written Off | 0.70 | 0.31 | 0.31 | 0.39 | 0.39 | |
| 7 | Return on Equity | 181.11 | 179.73 | 179.73 | 1.38 | - | 1.38 |
| 8 | Provision for Tax / Tax paid | 17.14 | 14.38 | 14.38 | 2.76 | - | 2.76 |
| 9 | Total Expenditure (1 to 8) | 9977.30 | 10211.92 | 10220.61 | (243.31) | 72.08 | (315.39) |
| 10 | Less: Non -Tariff income | 146.76 | 138.68 | 138.68 | 8.08 | - | 8.08 |
| 11 | Aggregate Revenue Requirement | 9830.54 | 10073.24 | 10081.93 | (251.39) | 72.08 | (323.47) |

4.9 Sharing of Gain / Loss for FY 2017-18

The Commission has analyzed the Gain / (Loss) on account of controllable and uncontrollable factors. The relevant Regulations are extracted below

“Regulation 23. Mechanism for pass-through of Gain or Loss on account of uncontrollable factors

23.1 The approved aggregate gain or loss to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.

23.2 *The Generating Company or Transmission Licensee or SLDC or Distribution Licensee shall submit such details of the variation between expenses incurred and revenue earned and the figures approved by the Commission, in the prescribed format to the Commission, along with the detailed computations and supporting documents as may be required for verification by the Commission.*

23.3 *Nothing contained in this Regulation 23 shall apply in respect of any gain or loss arising out of variations in the price of fuel and power purchase, which shall be dealt with as specified by the Commission from time to time.*

Regulation 24. Mechanism for sharing of Gain or Loss on account of controllable factors

24.1 *The approved aggregate gain to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:*

(a) *One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6;*

(b) *The balance amount, which will amount to two-thirds of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee.*

24.2 *The approved aggregate loss to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:*

(a) *One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6; and*

(b) *The balance amount of loss, which will amount to two-thirds of such loss, shall be absorbed by the Generating Company or Transmission Licensee or SLDC or Distribution Licensee.”*

4.10 Revenue (Gap) / Surplus for FY 2017-18

As shown in the Table below, UGVCL has claimed a revenue (Gap) of Rs. Crore in the truing up considering the treatment of Gain/(Loss) due to controllable/uncontrollable factors, after comparing the performance with the Tariff Order for FY 2017-18.

Table 4-56: Revenue Surplus/ (Gap) for FY 2017-18

| Sr. No. | Particulars | (Rs. Crore) FY 2017-18 |
|---------|---|---------------------------|
| 1 | Aggregate Revenue Requirement approved for 2017-18 in MYT Order | 9830.54 |
| 2 | Gain / (Loss) on account of Uncontrollable Factors to be passed on to Consumers | (314.79) |
| 3 | Gain / (Loss) on account of Controllable Factors to be passed on to Consumers (1/3rd of Total Gain /Loss) | 24.03 |
| 4 | Revenue (Gap)/Surplus from True-up of FY 2015-16 | 126.99 |
| 5 | Revised ARR for FY 2017-18 (1-2-3-4) | 9994.31 |
| 6 | Revenue from Sale of Power | 9129.81 |
| 7 | Other Income (Consumer related) | 256.74 |
| 8 | Agriculture subsidy | 542.26 |
| 9 | GUVNL Profit / (Loss) allocation | 30.98 |
| 10 | Total Revenue including Subsidy (9+10+11) | 9959.79 |
| 11 | Revised Surplus/ (Gap) after treating Gain/(Loss) due to Controllable/ Uncontrollable Factors (8-12) | (34.52) |

Petitioner's Submission

The Petitioner submitted that the Commission in the MYT Order dated 31st March, 2017 has approved Aggregate Revenue Requirement of Rs.9830.54 Crore for FY 2017-18.

As per the mechanism specified in the GERC (MYT) Regulation 2016, UGVCL propose to pass on a sum of 1/3rd of total gain on account of controllable factors i.e. Rs. 24.03 Crore out of Rs. 72.08 Crore and total loss on account of uncontrollable factors i.e. Rs. (314.79) Crore to the consumers.

The past revenue (Gap) / Surplus of Rs. 126.99 Crore, for FY 2015-16 is also adjusted in the approved Aggregate Revenue Requirement. Accordingly, UGVCL has arrived at the revised Aggregate Revenue Requirement for FY 2017-18 at Rs. 9994.31 Crore as shown in above Table.

This revised Aggregate Revenue Requirement is compared against the revised income under various heads including Revenue with Existing Tariff of Rs. 9129.81 Crore, Other Consumer related Income of Rs. 256.74 Crore and Agriculture Subsidy of Rs. 542.26 Crore. GUVNL profit of Rs. 126.05 Crore for FY 2017-18 is allocated amongst four DISCOMs with UGVCL's share being Rs. 30.98 Crore. Accordingly, the Total Revenue considering all these elements works out to Rs. 9959.79 Crore. Revenue Gap of UGVCL for FY 2017-18 after considering all the above adjustments is computed at Rs. 34.52 Crore.



Commission's Analysis

The Commission compared the actual performance of UGVCL with the values approved in the MYT Order dated 31st March 2017. The Commission also verified the Tariff Order dated 31st March, 2017 in Petition No. 1622 of 2016 and observed that the Petitioner has claimed the Surplus of Rs. 126.99 Crore of FY 2015-16 approved by the Commission in the said Order while determining tariff for FY 2017-18.

The Commission has arrived at the revised ARR and revenue (Gap), based on the expenses and the Gain / (Loss) approved in the truing up for FY 2017-18 and the earlier year's Surplus. The revenue Surplus/ (Gap) as approved by the Commission for FY 2017-18 is summarised in the Table below:

Table 4-57: Revenue Surplus/(Gap) approved in the truing up for FY 2017-18

| | | (Rs. Crore) |
|---------|---|-----------------|
| Sr. No. | Particulars | 2017-18 |
| 1 | Aggregate Revenue Requirement approved for 2017-18 in MYT Order | 9830.54 |
| 2 | Gain / (Loss) on account of Uncontrollable Factors to be passed on to Consumers | (323.47) |
| 3 | Gain / (Loss) on account of Controllable Factors to be passed on to Consumers (1/3rd of Total Gain /Loss) | 24.03 |
| 4 | Revenue (Gap)/Surplus from True-up of FY 2015-16 | 126.99 |
| 5 | Revised ARR for FY 2017-18 (1-2-3-4) | 10002.99 |
| 6 | Revenue from Sale of Power | 9129.81 |
| 7 | Other Income (Consumer related) | 256.74 |
| 8 | Agriculture Subsidy | 542.26 |
| 9 | GUVNL Profit / (Loss) allocation | 30.98 |
| 10 | Total Revenue including Subsidy (6+7+8+9) | 9959.79 |
| 11 | Revised Surplus/ (Gap) after treating Gain/(Loss) due to Controllable/ Uncontrollable factors (10-5) | (43.20) |

5 Mid-Term Review of ARR for FY 2019-20 and FY 2020-21

5.1 Introduction

In terms of Regulation 16.2 (i) of the GERC (MYT) Regulations, 2016, a Mid-Term Review of the Annual Revenue Requirement shall be undertaken for the Generating Company, Transmission Licensee, SLDC and Distribution Licensee on an application that shall be filed by utilities along with the petition for truing up for the second year of the control period and tariff determination for the fourth year of the control period.

5.2 Submission of UGVCL

In accordance with the above provisions Uttar Gujarat Vij Company (UGVCL) has filed the petition for Mid-Term review of ARR for the remaining control period i.e., FY 2019-20 and FY 2020-21.

5.2.1 Summary of the petition for Mid-Term review for the remaining control period, FY 2019-20 and FY 2020-21

UGVCL has projected its Revised Aggregate Revenue Requirement for FY 2019-20 and FY 2020-21 as part of Mid-Term Review process for the remaining years of the control period of the GERC (MYT) Regulations, 2016.

The comparison of revised projections for FY 2019-20 and FY 2020-21 vis-a-vis the figures approved by the Commission in the MYT order dated 31st March, 2017 is given in the Table below:

Table 5-1: Mid-Term Review for FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | | | |
|---------|--|---------------------------|------------------|---------------------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in the MYT Order | Projected in MTR | Approved in the MYT Order | Projected in MTR |
| 1 | Power Purchase | 9760.79 | 11156.97 | 10499.76 | 11835.84 |
| 2 | Operations & Maintenance Expenses | 495.19 | 840.71 | 523.51 | 942.07 |
| 2.1 | Employee Cost | 473.43 | 734.53 | 500.51 | 829.82 |
| 2.2 | Repairs & Maintenance Expenses | 98.91 | 98.91 | 104.57 | 104.57 |
| 2.3 | Administration & General Expenses | 84.60 | 84.60 | 89.44 | 89.44 |
| 2.4 | Other Debits | - | - | - | - |
| 2.5 | Extraordinary Items | - | - | - | - |
| 2.6 | Net Prior Period Expenses / (Income) | - | - | - | - |
| 2.7 | Other Expenses Capitalised | (161.75) | (77.33) | (171.00) | (81.76) |
| 3 | Depreciation | 399.19 | 248.47 | 427.81 | 273.65 |
| 4 | Interest & Finance Charges | 140.89 | 189.21 | 139.64 | 201.94 |
| 5 | Interest on Working Capital | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | Bad Debts Written off | 0.70 | 0.31 | 0.70 | 0.31 |
| 7 | Sub-Total [1 to 6] | 10796.76 | 12435.67 | 11591.42 | 13253.82 |
| 8 | Return on Equity | 212.51 | 215.36 | 226.97 | 231.86 |
| 9 | Provision for Tax / Tax Paid | 17.14 | 14.38 | 17.14 | 14.38 |
| 10 | Total Expenditure (7 to 9) | 11026.41 | 12665.41 | 11835.53 | 13500.06 |
| 11 | Less: Non-Tariff Income | 146.76 | 138.68 | 146.76 | 138.68 |
| 12 | Aggregate Revenue Requirement (10 - 11) | 10879.65 | 12526.72 | 11688.77 | 13361.38 |

5.3 Estimation of ARR for the remaining years of control period, FY 2019-20 and FY 2020-21

The Mid-Term Review covers the following items of ARR for the remaining years of control period i.e., FY 2019-20 and FY 2020-21.

- Energy projection
- Consumer profile
- Distribution loss
- Energy Requirement and energy balance
- Power purchase – Bulk supply tariff
- Transmission charges
- Capital expenditure and Funding of CAPEX.
- Operations and Maintenance Expenses

- Depreciation
- Interest on loan and Finance Expenses
- Interest on Working Capital
- Return on Equity
- Provision for Tax

The Commission has analysed the energy sales and components of expenditure and discussed the same hereunder.

5.4 Energy Sales

5.4.1 Projection of Energy sales for FY 2019-20 and FY 2020-21

UGVCL has projected the energy sales for FY 2019-20 and FY 2020-21 based on the trends during the past years. Wherever the trend has seemed unreasonable or unsustainable, the growth factors have been corrected to arrive at more realistic projections.

The Petitioner has furnished actual category-wise energy sales for the last 5 years (FY 2012-13 to FY 2017-18) and projected the sales for FY 2019-20 and FY 2020-21 and also underlying CAGR for (5 year, 3 year and YoY).

Category-wise sales over the last 5 years are shown in Table below:

Table 5-2: Historical Trend in Category-wise Units sold

| | | (MUs) | | | | | |
|---------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Sr. No. | Category | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 |
| | LOW TENSION | | | | | | |
| 1 | RGP | 1480 | 1573 | 1764 | 1881 | 1971 | 2102 |
| 2 | GLP | 32 | 34 | 37 | 41 | 43 | 45 |
| 3 | Non-RGP & LTMD | 1326 | 1337 | 1432 | 1557 | 1643 | 1763 |
| 4 | Public Water Works | 515 | 518 | 572 | 610 | 645 | 708 |
| 5 | Agriculture-Unmetered | 6094 | 6164 | 6177 | 6219 | 6284 | 6313 |
| 6 | Agriculture-Metered | 1536 | 1332 | 1893 | 2330 | 2407 | 2736 |
| 7 | Street Light | 43 | 46 | 48 | 52 | 54 | 52 |
| | Sub-Total | 11027 | 11005 | 11923 | 12690 | 13046 | 13718 |
| | HIGH TENSION | | | | | | |
| 1 | Industrial HT | 3771 | 3465 | 4469 | 4550 | 5307 | 6418 |
| 2 | Railway Traction | 17 | 15 | 16 | 14 | 0 | 0 |
| | Sub Total | 3788 | 3481 | 4485 | 4564 | 5307 | 6418 |
| | Total | 14816 | 14486 | 16408 | 17254 | 18352 | 20137 |



Table 5-3: Category-wise Growth rate of Units Sold

| Sr. No. | Category | 5 year | 4 year | 3 year | 2 year | 1 year |
|---------|-----------------------|---------------|---------------|---------------|---------------|---------------|
| | LOW TENSION | | | | | |
| 1 | RGP | 7.26% | 7.51% | 6.02% | 5.70% | 6.65% |
| 2 | GLP | 6.80% | 7.48% | 6.44% | 4.52% | 5.46% |
| 3 | Non-RGP & LTMD | - | - | 7.17% | 6.39% | 7.30% |
| 4 | Public Water Works | 6.57% | 8.12% | 7.39% | 7.73% | 9.82% |
| 5 | Agriculture-Unmetered | 0.71% | 0.60% | 0.72% | 0.75% | 0.46% |
| 6 | Agriculture-Metered | 12.24% | 19.71% | 13.08% | 8.37% | 13.67% |
| 7 | Street Light | 3.81% | 3.05% | 2.58% | 0.03% | -3.34% |
| | Sub-Total | 4.46% | 5.67% | 4.79% | 3.97% | 5.16% |
| | HIGH TENSION | | | | | |
| 1 | Industrial HT | 11.22% | 16.66% | 12.82% | 18.77% | 20.95% |
| 2 | Railway Traction | - | - | - | - | - |
| | Sub Total | 11.12% | 16.53% | 12.69% | 18.59% | 20.95% |
| | TOTAL | 6.33% | 8.58% | 7.06% | 8.03% | 9.72% |

**Railway is no more a discom consumer, therefore CAGR is not Computed.*

5.4.2 Consumer Profile

UGVCL has furnished the category-wise number of consumers for the past period and the CAGR for different periods (5 year, 3year and year on year) as given below:

Table 5-4: Category-wise number of Consumers

| Sr. No. | Category | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 |
|---------|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | LOW TENSION | | | | | | |
| 1 | RGP | 2298488 | 2368434 | 2432,337 | 2520821 | 2612174 | 2672013 |
| 2 | GLP | 19209 | 19410 | 20483 | 21932 | 23334 | 23538 |
| 3 | Non-RGP & LTMD | 267930 | 281035 | 295632 | 315654 | 335774 | 346316 |
| 4 | Public Water Works | 14511 | 15412 | 16540 | 18158 | 19642 | 20393 |
| 5 | Agriculture-Unmetered | 155009 | 154695 | 154384 | 154182 | 154041 | 152760 |
| 6 | Agriculture-Metered | 90070 | 106859 | 129011 | 154386 | 171337 | 195034 |
| 7 | Street Light | 9693 | 10274 | 10923 | 11788 | 12778 | 14007 |
| | Sub-Total | 2854910 | 2956119 | 3059310 | 3196921 | 3329080 | 3424061 |
| | HIGH TENSION | | | | | | |
| 1 | Industrial HT | 2551 | 2743 | 3001 | 3284 | 3511 | 3755 |
| 2 | Railway Traction | 1 | 1 | 1 | 1 | 0 | 0 |
| | Sub Total | 2552 | 2744 | 3002 | 3285 | 3511 | 3755 |
| | TOTAL | 2857462 | 2958863 | 3062312 | 3200206 | 3332591 | 3427816 |

Table 5-5: Growth rate of Number of Consumers

| Sr. No. | Category | 5 year | 4 year | 3 year | 2 year | 1 year |
|---------|-----------------------|--------|--------|--------|--------|--------|
| | LOW TENSION | | | | | |
| 1 | RGP | 3.06% | 3.06% | 3.18% | 2.96% | 2.29% |
| 2 | GLP | 4.15% | 4.94% | 4.74% | 3.60% | 0.87% |
| 3 | Non-RGP & LTMD | 0.00% | 0.00% | 5.42% | 4.74% | 3.14% |
| 4 | Public Water Works | 7.04% | 7.25% | 7.23% | 5.98% | 3.82% |
| 5 | Agriculture-Unmetered | -0.29% | -0.31% | -0.35% | -0.46% | -0.83% |
| 6 | Agriculture-Metered | 16.71% | 16.23% | 14.77% | 12.40% | 13.83% |



| Sr. No. | Category | 5 year | 4 year | 3 year | 2 year | 1 year |
|---------|---------------------|--------------|--------------|--------------|--------------|--------------|
| 7 | Street Light | 7.64% | 8.06% | 8.64% | 9.01% | 9.62% |
| | Sub-Total | 3.70% | 3.74% | 3.83% | 3.49% | 2.85% |
| | HIGH TENSION | | | | | |
| 1 | Industrial HT | 8.04% | 8.17% | 7.76% | 6.93% | 6.95% |
| 2 | Railway Traction | - | - | - | - | - |
| | Sub Total | 8.03% | 8.16% | 7.75% | 6.91% | 6.95% |
| | TOTAL | 3.71% | 3.75% | 3.83% | 3.50% | 2.86% |

**Railway is no more a discom consumer, therefore CAGR is not Computed.*

5.4.3 Category-wise Connected Load

The Petitioner has also submitted category-wise connected load for the past period and CAGR for different periods (5 year, 3 year and year on year) as given below:

Table 5-6: Category-wise of Connected Load

| | | (MW / MVA) | | | | | |
|---------|---------------------------|-------------|-------------|-------------|--------------|--------------|--------------|
| Sr. No. | Category | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 |
| | LOW TENSION | | | | | | |
| 1 | RGP | 1756 | 1911 | 2066 | 2286 | 2491 | 21691 |
| 2 | GLP | 36 | 40 | 43 | 47 | 51 | 55 |
| 3 | Non-RGP & LTMD | 1226 | 1278 | 1384 | 1516 | 1657 | 1792 |
| 4 | Public Water Works | 243 | 292 | 310 | 334 | 354 | 371 |
| 5 | Agriculture- Unmetered | 2691 | 2710 | 2718 | 2736 | 2750 | 2763 |
| 6 | Agriculture- Metered | 1083 | 1284 | 1546 | 1838 | 2130 | 2346 |
| 7 | Street Light | 28 | 21 | 22 | 25 | 27 | 30 |
| | Sub-Total | 7063 | 7535 | 8088 | 8781 | 9459 | 10047 |
| | HIGH TENSION | | | | | | |
| 1 | Industrial HT | 1473 | 1657 | 1725 | 1877 | 2130 | 2287 |
| 2 | Railway Traction | 5 | 5 | 5 | 5 | 0 | 0 |
| | Sub Total | 1478 | 1662 | 1730 | 1882 | 2130 | 2287 |
| | TOTAL | 8541 | 9197 | 9818 | 10662 | 11589 | 12334 |

Table 5-7: Growth Rate of Connected Load

| Sr. No. | Category | 5 year | 4 year | 3 year | 2 year | 1 year |
|---------|---------------------------|--------|--------|--------|--------|--------|
| | LOW TENSION | | | | | |
| 1 | RGP | 8.91% | 8.93% | 9.21% | 8.49% | 8.04% |
| 2 | GLP | 8.89% | 8.40% | 8.73% | 8.21% | 9.09% |
| 3 | Non-RGP & LTMD | 0.00% | 0.00% | 9.00% | 8.73% | 8.12% |
| 4 | Public Water Works | 8.85% | 6.22% | 6.22% | 5.45% | 4.76% |
| 5 | Agriculture- Unmetered | 0.53% | 0.49% | 0.55% | 0.49% | 0.48% |
| 6 | Agriculture- Metered | 16.71% | 16.26% | 14.91% | 12.97% | 10.13% |
| 7 | Street Light | 1.19% | 9.45% | 9.89% | 10.05% | 9.96% |



| Sr. No. | Category | 5 year | 4 year | 3 year | 2 year | 1 year |
|---------|---------------------|--------------|--------------|--------------|---------------|--------------|
| | Sub-Total | 7.30% | 7.46% | 7.50% | 6.97% | 6.22% |
| | HIGH TENSION | | | | | |
| 1 | Industrial HT | 9.19% | 8.38% | 9.85% | 10.37% | 7.34% |
| 2 | Railway Traction | - | - | - | - | - |
| | Sub Total | 9.12% | 8.31% | 9.75% | 10.24% | 7.34% |
| | TOTAL | 7.63% | 7.61% | 7.90% | 7.55% | 6.42% |

5.4.4 Category-wise Projected Growth rates of energy sales

The Petitioner has considered following growth rates for projection of energy sales for FY 2019-20 and FY 2020-21:

Table 5-8: Projected Growth Rates

| Sr. No. | Particulars | Connected Load | Sales | Consumers |
|---------|-----------------------|----------------|--------|-----------|
| | LOW TENSION | | | |
| 1 | RGP | 8.91% | 7.26% | 3.06% |
| 2 | GLP | 8.73% | 6.44% | 4.74% |
| 3 | Non-RGP & LTMD | 9.00% | 7.17% | 5.42% |
| 4 | Public Water Works | 6.22% | 7.39% | 7.23% |
| 5 | Agriculture-Unmetered | - | - | - |
| 6 | Agriculture-Metered | - | - | - |
| 7 | Street Light | 1.19% | 3.81% | 7.64% |
| | HIGH TENSION | | | |
| 1 | Industrial HT | 9.85% | 12.82% | 7.64% |
| 2 | Railway Traction | - | - | - |

Category-wise projected energy sales for the FY 2019-20 and FY 2020-21

The Petitioner has projected the energy sales for FY 2019-20 and FY 2020-21, the balance period of the control period, by applying the growth rates shown in the Table above on the energy sales of FY 2017-18.

Table 5-9: Projected Energy sales for FY 2018-19, 2019-20 and 2020-21

| Sr. No | Sales | Projection (MUs) | | |
|--------|-----------------------|------------------|--------------|--------------|
| | | FY 2018-19 | FY 2019-20 | FY 2020-21 |
| | LOW TENSION | | | |
| 1 | RGP | 2254 | 2418 | 2594 |
| 2 | GLP | 48 | 51 | 54 |
| 3 | Non-RGP & LTMD | 1889 | 2025 | 2170 |
| 4 | Public Water Works | 760 | 816 | 877 |
| 5 | Agriculture-Unmetered | 6313 | 6313 | 6313 |
| 6 | Agriculture-Metered | 2927 | 3119 | 3301 |
| 7 | Street Light | 54 | 56 | 58 |
| | Sub-Total | 14245 | 14798 | 15366 |
| | HIGH TENSION | | | |
| 1 | Industrial HT | 7241 | 8170 | 9218 |
| 2 | Railway Traction | 0 | 0 | 0 |
| | Sub Total | 7241 | 8170 | 9218 |
| | TOTAL | 21487 | 22968 | 24584 |



5.4.5 Detailed Analysis of Energy Sales projected

UGVCL has, in the Tables 5.3, 5.5 & 5.7 mentioned the growth rates as 5 year CAGR for the period from FY 2012-13 to FY 2017-18 and 3 year CAGR for the period from FY 2014-15 to FY 2017-18.

The category-wise sales given in Table 5.2 for the period from FY 2012-13 to FY 2017-18 are the actual. The energy sales for FY 2019-20 and FY 2020-21 are projected based on 5 year and 3 year CAGR between FY 2012-13 and FY 2017-18 and year on year between the FY 2017-18 over FY 2016-17. The projected sales for FY 2019-20 and FY 2020-21 are considered based on actuals for FY 2017-18.

Residential (RGP)

UGVCL has projected the energy sales to Residential category for FY 2019-20 and FY 2020-21 as given below:

| Category | 2018-19 | 2019-20 | 2020-21 |
|-------------------|---------|---------|---------|
| Residential (RGP) | 2254 | 2418 | 2594 |

(MUs)

Petitioner's submission:

UGVCL has submitted that the company has witnessed a remarkable growth in the units sold in the last five years in this category. The CAGR between FY 2012-13 and FY 2017-18 was 7.26%. The company expects this trend to continue in FY 2019-20 and FY 2020-21.

Commission's Analysis:

The Commission considered the growth rate of 8.14% which was the historical growth rate for 5 years (FY 2010-11 to FY 2015-16) in the MYT Order dated 31 March, 2017. The Petitioner expects the 5 year growth of 7.26% to continue during the rest of the control period, FY 2019-20 and FY 2020-21 which is considered reasonable and the Commission, therefore, approves the energy sales at 2418 MUs for FY 2019-20 and 2594 MUs for FY 2020-21 in the Mid-Term Review.

The Commission approves the energy sales to Residential category at 2418 MUs and 2594 MUs for FY 2019-20 and FY 2020-21 respectively at a growth rate of 7.26% against 2573 MUs and 2783 MUs approved in the MYT order for respective years .

Table 5-10: Sales approved for Residential category in the Mid-Term Review

| Category | 2019-20 | 2020-21 |
|-------------------|---------|---------|
| Residential (RGP) | 2418 | 2594 |

(MUs)



GLP – General Lighting Purpose

Petitioner’s submission:

UGVCL has submitted that the 3 year CAGR between FY 2014-15 and FY 2017-18 was 6.44% and the company expects this trend to continue in FY 2019-20 and FY 2020-21.

Commission’s Analysis:

The Petitioner has worked out actual 3 Year CAGR of 6.44% and expects this trend to continue.

The rate 6.44% adopted by the Petitioner is considered reasonable by the Commission, and accordingly, the Commission approves the energy sales at 51 MUs for FY 2019-20 and 54 MUs for FY 2020-21 in the Mid-Term Review.

The Commission approves the energy sales to GLP category at 51 MUs and 54 MUs for FY 2019-20 and FY 2020-21 respectively at a growth rate of 6.44% against 57 MUs and 61 MUs approved in the MYT order for respective years.

Table 5-11: Sales approved for GLP category in the Mid-Term Review

| Category | 2019-20 | 2020-21 |
|-----------------|----------------|----------------|
| GLP | 51 | 54 |

(MUs)

Non-RGP and LTMD

Petitioner’s submission:

For the purpose of projection of units sold 3 year CAGR of 7.17% between FY 2014-15 and FY 2017-18 has been considered by the Petitioner. The company expects this trend to continue in FY 2019-20 and FY 2020-21.

Commission’s Analysis:

The Commission had considered the 3 year growth rate of 5.50% (3 Years CAGR between FY 2012-13 to FY 2015-16) for Non-RGP and LTMD category for FY 2019-20 and FY 2020-21 in MYT Order dated 31st March 2017. In the Mid-Term Review, UGVCL has adopted 7.17% growth rate(3 Years CAGR).

The Commission considers it reasonable to adopt the 3 year CAGR of 7.17% over the sales of FY 2017-18 and has worked out the projected sales of these categories (Non-RGP & LTMD).



Table 5-12: Approved Sales for Non-RGP & LTMD Category together in the Mid-Term Review

| | (MUs) | |
|----------------|---------|---------|
| Category | 2019-20 | 2020-21 |
| Non-RGP & LTMD | 2025 | 2170 |

The Commission approves the energy sales to Non-RGP & LTMD category at 2025 MUs and 2170 MUs for FY 2019-20 and FY 2020-21 respectively against 1929 MUs and 2035 MUs approved in the MYT order for respective years at a growth rate of 7.17%.

Public Water Works

Petitioner's Submission:

UGVCL has submitted that the 2 year CAGR for this category was coming out to be 7.73% and y-o-y at 9.82% which is on a higher side when compared to the 3 year CAGR of 7.39%. Therefore, a more realistic growth rate at 3 year CAGR has been considered. The company expects this trend to continue in FY 2019-20 and FY 2020-21.

Commission's Analysis:

The Commission had approved the sales of 846 MUs & 918 MUs for FY 2019-20 and FY 2020-21 respectively considering the growth rate of 8.52% (2 Years CAGR) in the MYT Order dated 31st March, 2017. However considering the actual growth during the 3 years period, the Petitioner has projected lower sales. The growth rate of 7.39% adopted by UGVCL is therefore, considered reasonable for FY 2019-20 and FY 2020-21 and accordingly, the Commission accepts the sales projection as given in the Table below:

Table 5-13: Sales approved for Public Water Works in the Mid-Term Review

| | (MUs) | |
|--------------------|---------|---------|
| Category | 2019-20 | 2020-21 |
| Public Water Works | 816 | 877 |

The Commission approves the energy sales to Public Water Works category at 816 MUs and 877 MUs for FY 2019-20 and FY 2020-21 respectively against 846 MUs and 918 MUs approved in the MYT order for respective years at a growth rate of 8.52%.



Agriculture

Petitioner's Submission:

UGVCL has submitted that based on Government & internal targets the Company is planning to release new connections under this category but only under the metered category. For the unmetered category the company has decided not to release any new connections and has accordingly assumed a growth rate of 0% to project the sales, no. of consumers and connected load during the control period.

The Company has planned new connections under metered category during the balance control period as under:

| Sl. No. | Year | No. of new Connections |
|---------|---------|------------------------|
| 1 | 2018-19 | 11100 |
| 2 | 2019-20 | 11150 |
| 3 | 2020-21 | 10600 |

In order to estimate the consumption, UGVCL has gone with the same methodology as was followed by the Commission in its previous tariff orders i.e. estimating the overall consumption assuming an average consumption, calculated based on the weighted average consumption of the metered category during the past years. UGVCL has calculated the weighted average consumption based on the data available for the last five years in order to achieve a more reasonable consumption estimate. This approach is same as adopted and approved by the Commission in the MYT Order. Thus, based on the figures arrived at as above, the total sales for each year has been calculated based on the average connected load per consumer for metered and unmetered categories combined in FY 2017-18 and the number of new connections to be added during each year. The year wise addition of new metered connections during the control period in the service area of the company has been presented in the Table below:

Table 5-14: New Metered connections to Agricultural Consumer

| Agriculture Metered | No. of Connections | Average HP of Discom | HP Increase | MW Increase | Per HP Consumption | Additional Sale (MUs) |
|---------------------|--------------------|----------------------|-------------|-------------|--------------------|-----------------------|
| 2018-19 | 11100 | 20 | 218643 | 163 | 873 | 191 |
| 2019-20 | 11150 | 20 | 219628 | 164 | 873 | 192 |
| 2020-21 | 10600 | 20 | 208795 | 156 | 873 | 182 |



Commission's Analysis:

The Commission had approved the energy consumption of 6219 MUs for Unmetered Consumers for FY 2019-20 and FY 2020-21 in the MYT Order dated 31st March, 2017. UGVCL has now projected 6313 MUs for FY 2019-20 and FY 2020-21. The Commission approves the sales for Unmetered Consumers at 6313 MUs for the FY 2019-20 and FY 2020-21 at the same level of FY 2017-18.

As regards the Metered Consumers, UGVCL has projected the sales of 3119 MUs and 3301 MUs for FY 2019-20 and FY 2020-21 respectively at a consumption of 873 kWh/HP/Annum as against 928 kWh/HP/Annum considered in MYT Order dated 31st March, 2017 which is the weighted average consumption of Metered Consumers during FY 2010-11 and FY 2015-16. After detailed examination of the average consumption of Metered Consumers submitted by UGVCL, the Commission considered the average consumption for Metered Consumers at 873 kWh/HP/Annum, being the average consumption as given in Table below:

| 2013-14 | Details |
|----------------------------|----------------|
| Number of Consumers (Nos.) | 106859 |
| Connected Load (HP) | 1721872 |
| Consumption (MUs) | 1332 |
| 2014-15 | |
| Number of Consumers (Nos.) | 129011 |
| Connected Load (HP) | 2073220 |
| Consumption (MUs) | 1893 |
| 2015-16 | |
| Number of Consumers (Nos.) | 154386 |
| Connected Load (HP) | 2464610 |
| Consumption (MUs) | 2330 |
| 2016-17 | |
| Number of Consumers (Nos.) | 171337 |
| Connected Load (HP) | 2856094 |
| Consumption (MUs) | 2407 |
| 2017-18 | |
| Number of Consumers (Nos.) | 195034 |
| Connected Load (HP) | 3145500 |
| Consumption (MUs) | 2736 |

From the above, the total avg. connected load for 5 years works out to 2452259.26 HP $[(1721872+2073220+2464610+285094+3145500)/5]$ and the total average consumption works out to 2140 MUs $[(1332+1893+2330+2407+2736)/5]$. Based on this, the weighted average consumption of Metered Consumers in UGVCL area for the FY2013-14 to 2017-18 works out to 873 kWh/HP/Annum.



The Commission, therefore, considers the consumption at 873 kWh/HP/annum for Metered Consumers for FY 2019-20 and FY 2020-21. Based on the above , the sales to Metered category is under :-

Table 5-15: Consumption of metered Consumers approved in the Mid-Term Review
 (MUs)

| Year | Consumption |
|---------|-------------|
| 2019-20 | 3119 |
| 2020-21 | 3301 |

The consumption (sales) to Agricultural category both for un-metered and metered category would be as below:)

Table 5-16: Approved Sales for Agriculture Consumers in the Mid-Term Review
 (MUs)

| Category | 2019-20 | 2020-21 |
|------------|---------|---------|
| Un-metered | 6313 | 6313 |
| Metered | 3119 | 3301 |
| Total | 9432 | 9614 |

The Commission approves the sales to Agriculture Category at 9432 MUs and 9614 MUs for FY 2019-20 and FY 2020-21 respectively.

Public Lighting

Petitioner's Submission:

UGVCL has submitted that the 5 year CAGR observed between FY 2012-13 and FY 2017-18 was 3.81% and it is expected that this trend will continue in FY 2019-20 and FY 2020-21 also.

Commission Analysis:

UGVCL has projected the sales at a growth rate (5 Years CAGR) of 3.81%. The Commission had approve the sales for this category at 66 MUs and 58 MUs for FY 2019-20 and FY 2020-21 respectively in the MYT Order dated 31st March 2017 considering 5 Years CAGR 5.97%. UGVCL has projected the sales for FY 2019-20 and FY 2020-21 at 56 MUs and 58 MUs respectively at a 5 Year CAGR of 3.81%. The Commission considers the projected sales as reasonable and approves the sales for FY 2019-20 and FY 2020-21 as below:



Table 5-17: Energy Sales approved for FY 2019-20 and FY 2020-21

| Sl. No. | Category | 2019-20 | 2020-21 |
|---------|-----------------|---------|---------|
| 1 | Public Lighting | 56 | 58 |

The Commission approves the sales to Public Lighting Category at 56 MUs and 58 MUs for FY 2019-20 and FY 2020-21 respectively.

Industrial HT

Petitioner's Submission:

UGVCL has submitted that this category has observed a constant variation in sales in the last five years due to presence of open access, slowdown in the economy, etc. The 5-year and 4-year CAGR are higher at 11.22% and 16.66% respectively whereas the y-o-y growth is also higher at 20.95%. Therefore, a more realistic 3-year CAGR of 12.82% is considered as reasonable. The company expects this trend to continue in FY 2019-20 and FY 2020-21 also.

Commission's Analysis:

It is observed that the growth in sales of this category was 11.22% during the 5 year period (FY 2012-13 to FY 2017-18), 12.82% during 3 year period (FY 2015-16 to FY 2017-18) and 20.95% during the FY 2017-18 over FY 2016-17. It is also observed that there is an increasing trend in this category. The growth rate of number of consumers has been consistently decreasing. (5 year CAGR at 8.04%, 3 year CAGR at 7.76% and FY 17 over FY 16 at 6.95%).

The actual sales for this category during FY 2017-18 was 6418 MUs. Sales projected by the Petitioner for the FY 2019-20 and FY 2020-21 is 8170 MUs and 9218 MUs by taking the growth rate of 12.82% against the sales actually approved by the Commission for FY 2019-20 and 2020-21, 4889 MUs and 4977 MUs in the MYT Order dated 31st March, 2017 considering Y-o-Y Growth Rate of 1.81%. The Commission considered rate of 12.82% (3 Year CAGR) as reasonable and approves the sales for the purpose of Mid-Term Review.

Accordingly, the energy sales approved for Industrial HT category for FY 2019-20 and FY 2020-21 applying the growth rate of 12.82% over the sales of FY 2017-18 is given in the Table below:

Table 5-18: Approved Sales for Industrial HT category in the Mid-Term Review

| | | (MUs) | |
|---------|---------------|---------|---------|
| Sl. No. | Category | 2019-20 | 2020-21 |
| 1 | Industrial HT | 8170 | 9218 |

Railway Traction

UGVCL has submitted that no projection has been made for sales, consumers and connected load for the control period as the consumer has moved out of the company's consumer base.

Commission's Analysis:

The Commission approved the energy sales of "0" MUs for FY 2019-20 and FY 2020-21 respectively in the MYT Order. Against this, UGVCL has not projected sales, consumers and connected load for FY 2019-20 and FY 2020-21. As the consumer has moved out of the company's consumer base, the Commission approves the Nil sales for Railway Traction as below:

5.4.6 Total Energy Sales

Total Energy sales for FY 2019-20 and FY 2020-21 approved by the Commission based on the above analysis is summarised in the Table below:

Table 5-19: Energy Sales approved in the Mid-Term Review

| | | (MUs) | |
|--------|-------------------------------|--------------|--------------|
| Sr. No | Category | 2019-20 | 2020-21 |
| | LOW TENSION | | |
| 1 | Residential (RGP) | 2418 | 2594 |
| 2 | GLP | 51 | 54 |
| 3 | Non-RGP & LTMD | 2025 | 2170 |
| 4 | Public Water Works | 816 | 877 |
| 5 | Agriculture Unmetered | 6313 | 6313 |
| 6 | Agriculture Metered | 3119 | 3301 |
| 7 | Public Lighting | 56 | 58 |
| 8 | Total LT | 14798 | 15366 |
| | HIGH TENSION | | |
| 9 | Industrial HT | 8170 | 9218 |
| 10 | Railway Traction | 0 | 0 |
| 11 | Total HT | 8170 | 9218 |
| | TOTAL (LT + HT) (8+11) | 22968 | 24584 |



5.5 Distribution Losses

UGVCL has projected distribution losses for FY 2019-20 and FY 2020-21 in the Mid-Term Review as given in the Table below:

Table 5-20: Projected Distribution Losses for FY 2019-20 and FY 2020-21

| Sl. No. | Particulars | FY 2019-20 | FY 2020-21 |
|---------|---------------------|------------|------------|
| 1 | Distribution Losses | 9.70% | 9.60% |

Petitioner's Submission:

UGVCL has submitted that the company has, through its constant endeavours, tried to reduce its losses in the past. These efforts shall continue and will be enhanced. However, loss reduction is a slow process and becomes increasingly difficult as the loss levels come down.

Commission's Analysis:

The Commission in the MYT Order dated 31st March 2017, considered distribution losses at 9.70% during FY 2019-20 and 9.60% during FY 2020-21 and the distribution losses projected by UGVCL is 9.70% for FY 2019-20 and 9.60% for FY 2020-21. Thus, there is no change in the distribution losses approved by the Commission in the MYT Order and the losses projected by UGVCL in the Mid-Term Review for FY 2019-20 and FY 2020-21. Hence, the Commission approves the distribution losses of 9.70% for FY 2019-20 and 9.60% for FY 2020-21.

5.6 Energy Requirement and Energy Balance

The total energy requirement of the distribution company to meet the total demand of its consumers is the sum of the estimated energy sales and the system losses (distribution losses) approved by the Commission.

Petitioner's Submission:

UGVCL has submitted that to arrive at the total energy requirement, the total sales in MUs as projected have been grossed up by factoring in transmission and distribution losses. Intra-state transmission losses are assumed as per the projection by GETCO in its MTR Petition for FY 2019-20 and FY 2020-21. The inter-state transmission losses viz. PGCIL pooled losses are assumed at same level as in FY 2017-18 for the entire control period. Further, the distribution losses are taken as per the projections above. Based on the information provided above, Energy Balance of the Company for FY



2019-20 to 2020-21 is as shown below:

Table 5-21: Projected Energy Requirement and Energy Balance

| Particulars | Unit | 2019-20 | 2020-21 |
|---|------------|-----------------|-----------------|
| Energy Sales | MUs | 22967.58 | 24583.98 |
| Distribution Losses | MUs | 2467.17 | 2610.69 |
| | % | 9.70% | 9.60% |
| Energy Requirement | MUs | 25434.75 | 27194.67 |
| Transmission Losses | MUs | 1018.00 | 1089.00 |
| Total Energy input to Transmission System | % | 3.85% | 3.85% |
| Total Energy input to Transmission System | MUs | 26452.75 | 28283.67 |
| Pooled Losses in PGCIL System | MUs | 396.26 | 396.26 |
| Total Energy Requirement | MUs | 26849.02 | 28679.93 |

Commission's Analysis:

Based on the energy sales and the distribution losses approved by the Commission in Paragraphs 5.4 and 5.5 above, the energy requirement is arrived at as given in the Table below:

Table 5-22: Total approved Energy Requirement in the Mid-Term Review

| Sr. No. | Particulars | Unit | (MUs) | |
|---------|--|------|----------|----------|
| | | | 2019-20 | 2020-21 |
| 1 | Estimated Energy Sales | MUs | 22967.58 | 24583.98 |
| 2 | Distribution Losses | MUs | 2467.17 | 2610.69 |
| | | % | 9.70% | 9.60% |
| 3 | Energy requirement at the Distribution periphery | MUs | 25434.75 | 27194.67 |

5.7 Energy Balance

Commission's Analysis:

Energy Balance projected by UGVCL is given in Table 5-22 above. UGVCL has considered Transmission losses at 3.85% which is the same as approved by the Commission in the MYT Order dated 31st March, 2017. The pooled losses in PGCIL system are considered at 396.26 MUs for FY 2019-20 and FY 2020-21 same as the actual for FY 2017-18 by UGVCL. The Commission considers the Transmission losses at 3.85% and pooled losses in PGCIL system as projected by UGVCL to arrive at the Energy Balance in the Table below:

Table 5-23: Approved Energy Balance in the Mid-Term Review

| Particulars | Unit | 2019-20 | 2020-21 |
|---|------------|-----------------|-----------------|
| Energy Sales | MUs | 22967.58 | 24583.98 |
| Distribution Losses | MUs | 2467.17 | 2610.69 |
| | % | 9.70 | 9.60 |
| Energy Requirement | MUs | 25434.75 | 27,194.67 |
| Transmission Losses | MUs | 1018.00 | 1089.00 |
| Total Energy input to Transmission System | % | 3.85 | 3.85 |
| Total Energy input to Transmission System | MUs | 26452.75 | 28283.67 |
| Pooled Losses in PGCIL System | MUs | 396.26 | 396.26 |
| Total Energy Requirement | MUs | 26849.02 | 28679.93 |

5.8 Power Purchase Cost – Petitioner’s Submission

5.8.1 Power Purchase Sources

Petitioner’s submission

The various sources of power purchase by GUVNL on behalf of four Distribution Companies consists of (i) Generating Plants of GSECL (ii) Central Sector Power Plants- NTPC and NPC, (iii) Renewable sources of power - Hydro, Solar Wind, Other RE Sources (iv) IPPs and (v) Power tied up through competitive bidding etc. The power purchase sources have been differentiated into existing capacity and additional capacity envisaged during the control period.

(i) Existing capacity with GUVNL

The existing contracted capacity tied up by GUVNL as on 31st March 2018 is **22616 MW**. Given below are the names of the existing power plants, their operational parameters, capacity allocated to GUVNL, their fixed cost along with the variable cost of generation per unit as per actual of FY 2017-18:

Table 5-24: Existing Capacity contracted by GUVNL

| Sr. No | Name of the Station | Capacity allocated to GUVNL (MW) | Auxiliary Consumption (%) | Plant Load Factor (%) | Fixed Cost (Rs. Crore) | Variable Cost (Rs./kWh) |
|--------|-----------------------|----------------------------------|---------------------------|-----------------------|------------------------|-------------------------|
| | GSECL | | | | | |
| 1 | GSECL Gandhinagar – 5 | 210 | 9.00% | 78.49% | 23 | 3.50 |
| 2 | GSECL Wanakbori – 7 | 210 | 9.00% | 80.11% | 62 | 3.21 |
| 3 | GSECL Utran Expan | 375 | 3.00% | 7.85% | 250 | 5.35 |
| 4 | GSECL Dhuvaran – 7 | 107 | 3.00% | 21.08% | 61 | 1.49 |
| 5 | GSECL Dhuvaran – 8 | 112 | 3.00% | 37.78% | 86 | 1.28 |
| 6 | GSECL Ukai | 610 | 9.00% | 85.00% | 262 | 3.39 |
| 7 | GSECL Ukai Expan | 500 | 6.00% | 85.00% | 447 | 3.04 |



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| Sr. No | Name of the Station | Capacity allocated to GUVNL (MW) | Auxiliary Consumption (%) | Plant Load Factor (%) | Fixed Cost (Rs. Crore) | Variable Cost (Rs./kWh) |
|--------|--|----------------------------------|---------------------------|-----------------------|------------------------|-------------------------|
| 8 | GSECL Gandhinagar 1-4 | 420 | 10.00% | 61.97% | 204 | 3.74 |
| 9 | GSECL Wanakbori 1-6 | 1,260 | 9.00% | 85.00% | 448 | 3.29 |
| 10 | GSECL Sikka Expansion | 500 | 9.00% | 70.00% | 629 | 3.65 |
| 11 | GSECL Kutch Lignite 1-3 | 215 | 12.00% | 52.31% | 207 | 2.16 |
| 12 | GSECL Kutch Lignite 4 | 75 | 12.00% | 42.72% | 62 | 1.98 |
| 13 | GSECL Ukai Hydro | 305 | 0.60% | 11.71% | 42 | - |
| 14 | GSECL Kadana Hydro | 242 | 1.00% | 13.72% | 73 | - |
| 15 | BECL | 500 | 6.50% | 85.00% | 879 | 2.15 |
| 16 | Dhuvaran CCPP III | 376 | 3.00% | 0.94% | 159 | 5.77 |
| | Sub Total | 6,017 | | | 3894 | |
| | IPP's | | | | | |
| 1 | Gujarat State Energy Generation | 156 | 3.00% | 0.15% | 49 | 6.11 |
| 2 | Gujarat State Energy Generation Expansion | 351 | 0.00% | 6.08% | 180 | 5.19 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | 165 | 3.00% | 0.00% | - | 4.5 |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 250 | 10.00% | 71.59% | 129 | 1.71 |
| 5 | Gujarat Mineral Development Corp. | 250 | 10.00% | 57.38% | 124 | 1.26 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 42 | 3.00% | 29.42% | 5 | 2.27 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 250 | 10.00% | 75.29% | 273 | 1.88 |
| 8 | GPPC Pipavav | 702 | 3.00% | 2.80% | 325 | 4.37 |
| | Sub Total | 2,166 | | | 1085 | |
| | Central Sector | | | | | |
| 1 | NPC-Tarapur (1 & 2) | 160 | 10.00% | 42.73% | - | 2.08 |
| 2 | NPC-Tarapur (3 & 4) | 274 | 10.00% | 59.81% | - | 3.1 |
| 3 | NPC-Kakrapar | 125 | 12.50% | 52.60% | - | 2.39 |
| 4 | NTPC-Vindhyachal - I | 230 | 9.00% | 87.98% | 23 | 1.62 |
| 5 | NTPC-Vindhyachal - II | 239 | 6.50% | 91.75% | 128 | 1.52 |
| 6 | NTPC-Vindhyachal - III | 266 | 6.50% | 95.29% | 212 | 1.52 |
| 7 | NTPC-Korba | 360 | 6.50% | 89.91% | 23 | 1.46 |
| 8 | NTPC-Korba –II | 96 | 6.50% | 91.19% | 98 | 1.43 |
| 9 | NTPC-Kawas | 187 | 3.00% | 43.80% | 113 | 2.56 |
| 10 | NTPC-Jhanor | 237 | 3.00% | 55.42% | 132 | 2.39 |
| 11 | NTPC-Sipat-I | 540 | 6.50% | 89.04% | 519 | 1.3 |
| 12 | NTPC-Sipat – II | 273 | 6.50% | 90.03% | 250 | 1.35 |
| 13 | NTPC-Kahlagaon | 141 | 6.50% | 78.80% | 106 | 2.31 |
| 14 | NTPC-Vindhyachal – IV | 240 | 6.50% | 90.40% | 280 | 1.51 |
| 15 | NTPC-Mauda | 240 | 6.50% | 85.00% | 320 | 2.79 |
| 16 | NTPC-Vindhyachal – V | 93 | 6.50% | 100.00% | 118 | 1.57 |
| 17 | NTPC-Mauda II | 294 | 5.75% | 85.05% | 380 | 2.5 |
| 18 | SSNL | 232 | 0.00% | 7.18% | - | 2.03 |
| 19 | Mundra UMPP CGPL | 1,805 | 0.00% | 73.93% | 1,129 | 1.66 |
| | Sub Total | 6,032 | | | 3831 | |
| | Others | | | | | |
| 1 | Captive Power | 8 | 0.00% | 2.85% | - | 2.13 |
| - | Renewable | | | | | |
| 1 | Wind Farms | 3,695 | 0.00% | 20.61% | - | 3.78 |
| 2 | Solar | 1,116 | 0.00% | 17.84% | - | 11.45 |



| Sr. No | Name of the Station | Capacity allocated to GUVNL (MW) | Auxiliary Consumption (%) | Plant Load Factor (%) | Fixed Cost (Rs. Crore) | Variable Cost (Rs./kWh) |
|----------------------------|---------------------------|----------------------------------|---------------------------|-----------------------|------------------------|-------------------------|
| 3 | Small/Mini Hydal | 10 | 0.00% | 65.00% | - | 3.39 |
| 4 | Biomass | 30 | 0.00% | 80.00% | 40 | 4.17 |
| Competitive Bidding | | | | | | |
| 1 | Adani Power Ltd | 2,000 | 0.00% | 45.79% | 975 | 1.81 |
| 2 | Essar Power Bid 2 | 1,000 | 0.00% | 28.13% | 354 | 1.92 |
| 3 | ACB India Ltd | 200 | 0.00% | 80.48% | 201 | 0.82 |
| 4 | Power Exchange | 342 | 0.00% | 100.00% | - | 4.5 |
| 5 | Short term power purchase | 342 | 0.00% | 100.00% | - | 3.5 |
| Sub Total | | 8,401 | | | 1570 | |
| Total | | 22,616 | | | 10380 | |

(ii) Capacity additions during FY 2019-20 and FY 2020-21

The capacity addition plan which includes capacity additions of GSECL, Central stations and IPPs is presented in the Table below with details of the capacity allocated to GUVNL and their unit wise tentative commissioning schedule. It is submitted that the PPA is already signed for the stations listed below and are expected to get commissioned during the FY 2019-20 to FY 2020-21.

The capacity addition envisaged against these petitions during FY 2019-20 to FY 2020-21 is around 1,995 MW. The operational parameters, annual fixed cost and variable cost per unit for these plants is given below. The Annual fixed cost and the availability from the envisaged capacity during FY 2019-20 to FY 2020-21 have been considered on pro-rata basis depending upon the tentative date of commissioning:

Table 5-25: Capacity Addition during the remaining control Period

| Sr. No. | Name of the Stations | Capacity allocated to GUVNL (MW) | Auxillary consumption (%) | Plant Load Factor (%) | Fixed Cost Rs. Crore | Variable Cost Rs./kWh | COD |
|-----------|--------------------------------|----------------------------------|---------------------------|-----------------------|----------------------|-----------------------|--------|
| 1 | Small/Mini Hydal (New) | 12 | - | - | - | 3.29 | Apr-19 |
| 2 | NTPC- Lara U#1 | 79 | 5.75% | 85% | 110 | 1.50 | Oct-18 |
| 3 | NTPC-Gadarwara Stage-1 U#1 | 152 | 5.75% | 85% | 152 | 1.50 | Dec-18 |
| 4 | NTPC-Gadarwara Stage-1 U#2 | 152 | 5.75% | 85% | 152 | 1.50 | Sep-19 |
| 5 | NTPC- Lara U#2 | 79 | 5.75% | 85% | 110 | 1.50 | Sep-19 |
| 6 | NPC Kakrapar Ext U#1 | 238 | 5.75% | 85% | 120 | 2.38 | Mar-21 |
| 7 | NPC Kakrapar Ext U#2 | 238 | 5.75% | 85% | 120 | 2.38 | Mar-21 |
| 8 | GSECL Wanakbori Ext U#8 | 800 | 5.75% | 85% | 905 | 2.94 | Dec-18 |
| 9 | NTPC- Khargone U#1 | 123 | 5.75% | 85% | 172 | 1.50 | Jul-19 |
| 10 | NTPC- Khargone U#2 | 123 | 5.75% | 85% | 172 | 1.50 | Nov-19 |
| 11 | Total Capacity Addition | 1995 | | | | | |



(iii) Renewable Purchase Obligation

In accordance with the GERC (Procurement of Energy from Renewable Sources) Regulations, 2010 and its First and Second Amendments in 2014 and 2018 respectively, the DISCOMS are obligated to procure electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of its consumers including T&D losses during a year. The percentage of procurement is defined from FY 2017-18 to FY 2021-22. The minimum Renewable Energy purchase in FY 2017-18 is 1.75% from Solar, 7.75% from Wind and 0.5% from others sources like Biomass, Bagasse, MSW, etc.

As per Clause 6.4 of the National Tariff Policy 2016 dated 28th January, 2016 the States have to achieve 8% Solar RPO targets by FY 2021-22. The relevant extract from the Tariff Policy is given below:

“6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:

(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification of this policy which shall be such that it reaches 8% of total consumption of energy, excluding Hydro Power, by March 2022 or as notified by the Central Government from time to time.

While the Commission has defined the RPO targets for FY 2017-18 to FY 2021-22 through the Second Amendment to the RPO Regulations, GUVNL/DISCOMS proposes to purchase renewable power up to tied up RE capacity only for each of the respective years as per the PPA price. The Petitioner has submitted that it is very difficult to meet such high level of RPO targets and it will not be appropriate to show RE purchase in the absence of any firm PPA. Hence, GUVNL/ DISCOM has only considered RE purchase based on actual tied up capacity.

The year wise purchase from RE sources based on actual tied up capacity has been detailed below:

Table 5-26: Procurement from RE for Meeting Projected RPO

| Particulars | FY 2019-20 | | | | FY 2020-21 | | | |
|-------------|------------|------|--------|-------|------------|------|--------|-------|
| | Solar | Wind | Others | Total | Solar | Wind | Others | Total |
| | | | | | | | | |



| Particulars | FY 2019-20 | | | | FY 2020-21 | | | |
|---|--|------------|------------|-------------|-------------|------------|------------|-------------|
| | Available Capacity upto FY 2017-18 (MUs) | 1744 | 6671 | 309 | 8724 | 1744 | 6671 | 309 |
| Total Requirement (MUs) | 99680 | 99680 | 99680 | 99680 | 105652 | 105652 | 105652 | 105652 |
| RPO Obligation fulfilled | 1.75% | 6.69% | 0.31% | 8.75% | 1.65% | 6.31% | 0.29% | 8.25% |
| RPO Target | 5.50% | 8.05% | 0.75% | 14.30% | 6.75% | 8.15% | 0.75% | 15.65% |
| RPO Target (MUs) | 5482 | 8024 | 748 | 14254 | 7132 | 8611 | 792 | 16535 |
| Unmet Target (MUs) | 3738 | 1353 | 439 | 5530 | 5388 | 1940 | 483 | 7810 |
| Additional Capacity based on PPAs executed | | | | | | | | |
| Additional Power Purchase (MUs) | 950 | 589 | 14 | 1554 | 2161 | 1058 | 177 | 3397 |
| Power Purchase Cost (Rs./kwh) | 2.66 | 2.44 | 6.66 | 2.62 | 2.54 | 2.44 | 6.90 | 2.73 |
| Power Purchase Cost (Rs. Crore) | 253 | 144 | 10 | 407 | 549 | 258 | 122 | 929 |
| Unmet Capacity (MUs) | 2788 | 764 | 424 | 3976 | 3226 | 881 | 306 | 4414 |

5.8.2 Power Purchase Cost

Petitioner's submission:

UGVCL has submitted that in order to optimise the power purchase cost, GUVNL has worked out a comprehensive Merit Order Dispatch (MOD) available from tied up generating capacities. The dispatch from individual generating stations is worked out based on the merit order of the variable cost of each generating unit as shown below:

- The NPC power plants, renewable and hydro plants have been considered as must run power plants.
- During merit order despatch, at least 5% availability of each plant has been considered to take care of the peak loads and peak season requirements.
- Availability of Thermal Stations has been considered at 85% / 80% as defined in Regulations (CERC/GERC) and performance in previous years.
- The Fixed & Variable Cost for existing GSECL, IPP, Renewables and Central Sector plants is taken as per actuals of FY 2017-18 as base power purchase cost

Based on the above factors, the plant-wise dispatchable energy and cost of purchase by GUVNL from various plants of GSECL, Central generating stations, IPPs and other sources, the generation fixed cost due to the capacity contracted, and variable cost of generation per unit are given in the Table below. The dispatchable energy (MUs) based on the allocated capacity and merit order stacking consists both for supplying power to DISCOMs as well as for trading purpose.



Table 5-27: Projected Power Purchase cost for FY 2019-20

| Sr. No. | Name of the Station | Available | Dispatch | Fixed Cost | Variable Cost | Variable Cost | Total Cost |
|-----------------------|--|--------------|--------------|-------------|---------------|---------------|--------------|
| | | (MUs) | (MUs) | (Rs. Cr.) | (Rs. /kWh) | (Rs. Cr.) | (Rs. Cr.) |
| GSECL | | | | | | | |
| 1 | GSECL Gandhinagar – 5 | 1,314 | 1,314 | 23 | 3.50 | 460 | 483 |
| 2 | GSECL Wanakbori – 7 | 1,341 | 1,341 | 62 | 3.21 | 430 | 492 |
| 3 | GSECL Utran Expan | 250 | 159 | 250 | 5.35 | 85 | 335 |
| 4 | GSECL Dhuvaran – 7 | 191 | 191 | 61 | 1.49 | 28 | 89 |
| 5 | GSECL Dhuvaran – 8 | 361 | 361 | 86 | 1.28 | 46 | 132 |
| 6 | GSECL Ukai | 4,133 | 4,133 | 262 | 3.39 | 1401 | 1663 |
| 7 | GSECL Ukai Expan | 3,500 | 3,500 | 447 | 3.04 | 1064 | 1511 |
| 8 | GSECL Gandhinagar 3-4 | 2,052 | 166 | 204 | 3.74 | 62 | 266 |
| 9 | GSECL Wanakbori 1-6 | 8,538 | 8,538 | 448 | 3.29 | 2809 | 3257 |
| 10 | GSECL Sikka Expansion | 2,790 | 199 | 629 | 3.65 | 73 | 702 |
| 11 | GSECL Kutch Lignite 1-3 | 867 | 867 | 207 | 2.16 | 187 | 394 |
| 12 | GSECL Kutch Lignite 4 | 247 | 247 | 62 | 1.98 | 49 | 111 |
| 13 | GSECL Ukai Hydro | 311 | 311 | 42 | - | - | 42 |
| 14 | GSECL Kadana Hydro | 288 | 288 | 73 | - | - | 73 |
| 15 | BECL | 3,481 | 3,481 | 879 | 2.15 | 748 | 1627 |
| 16 | Dhuvaran CCPP III | 30 | 30 | 159 | 5.77 | 17 | 176 |
| 17 | GSECL Wanakbori Ext U#8 | 5,614 | 5,614 | 905 | 2.94 | 1651 | 2556 |
| Sub Total | | 35308 | 30740 | 4798 | | 9113 | 13910 |
| IPP's | | | | | | | |
| 1 | Gujarat State Energy Generation | 2 | 2 | 49 | 6.11 | 1 | 50 |
| 2 | Gujarat State Energy Generation Expansion | 187 | 154 | 180 | 5.19 | 80 | 260 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | - | - | - | 4.50 | - | - |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 1,411 | 1,411 | 129 | 1.71 | 241 | 370 |
| 5 | Gujarat Mineral Development Corp. | 1,131 | 1,131 | 124 | 1.26 | 143 | 267 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 105 | 105 | 5 | 2.27 | 24 | 29 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1,484 | 1,484 | 273 | 1.88 | 279 | 552 |
| 8 | GPPC Pipavav | 167 | 167 | 325 | 4.37 | 73 | 398 |
| 9 | Mundra UMPP CGPL | 11,689 | 11,689 | 1,129 | 1.66 | 1940 | 3069 |
| 10 | Adani Power Ltd | 8,023 | 8,023 | 975 | 1.81 | 1452 | 2427 |
| 11 | Essar Power Bid 2 | 2,464 | 2,464 | 354 | 1.92 | 473 | 827 |
| 12 | ACB India Ltd | 1,410 | 1,410 | 201 | 0.82 | 116 | 317 |
| 13 | Power Exchange | 3,000 | 150 | - | 4.5 | 68 | 68 |
| 14 | Short Term Power Purchase | 3,000 | 1,187 | - | 3.5 | 415 | 415 |
| Sub Total | | 34073 | 29377 | 3744 | | 5304 | 9048 |
| Central Sector | | | | | | | |
| 1 | NPC-Tarapur (1 & 2) | 539 | 539 | - | 2.08 | 112 | 112 |
| 2 | NPC-Tarapur (3 & 4) | 1,292 | 1,292 | - | 3.10 | 401 | 401 |
| 3 | NPC-Kakrapar | 504 | 504 | - | 2.39 | 120 | 120 |
| 4 | NTPC-Vindhyachal – I | 1,613 | 1,613 | 23 | 1.62 | 261 | 284 |
| 5 | NTPC-Vindhyachal – II | 1,796 | 1,796 | 128 | 1.52 | 273 | 401 |



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| Sr. No. | Name of the Station | Available | Dispatch | Fixed Cost | Variable Cost | Variable Cost | Total Cost |
|---------|----------------------------|---------------|---------------|--------------|---------------|---------------|--------------|
| | | (MUs) | (MUs) | (Rs. Cr.) | (Rs. /kWh) | (Rs. Cr.) | (Rs. Cr.) |
| 6 | NTPC-Vindhyachal – III | 2,076 | 2,076 | 212 | 1.52 | 316 | 528 |
| 7 | NTPC-Korba | 2,651 | 2,651 | 23 | 1.46 | 387 | 410 |
| 8 | NTPC-Korba –II | 717 | 717 | 98 | 1.43 | 103 | 201 |
| 9 | NTPC-Kawas | 696 | 696 | 113 | 2.56 | 178 | 291 |
| 10 | NTPC-Jhanor | 1,116 | 1,116 | 132 | 2.39 | 267 | 399 |
| 11 | NTPC-Sipat-I | 3,938 | 3,938 | 519 | 1.30 | 512 | 1031 |
| 12 | NTPC-Sipat – II | 1,445 | 1,445 | 250 | 1.35 | 195 | 445 |
| 13 | NTPC-Kahlagaon | 910 | 910 | 106 | 2.31 | 210 | 316 |
| 14 | NTPC-Vindhyachal – IV | 1,777 | 1,777 | 280 | 1.51 | 268 | 548 |
| 15 | NTPC-Mauda | 1,671 | 1,671 | 320 | 2.79 | 466 | 786 |
| 16 | NTPC-Vindhyachal – V | 765 | 765 | 118 | 1.57 | 120 | 238 |
| 17 | NTPC-Mauda II | 2,063 | 2,063 | 380 | 2.50 | 516 | 896 |
| 18 | SSNNL | 146 | 146 | - | 2.03 | 30 | 30 |
| 19 | NTPC-Lara U#1 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 622 | 622 | 89 | 1.50 | 93 | 182 |
| 22 | NTPC-Lara U#2 | 321 | 321 | 64 | 1.50 | 48 | 112 |
| 23 | NPC Kakrapar Ext U#1 | - | - | - | 2.38 | - | - |
| 24 | NPC Kakrapar Ext U#2 | - | - | - | 2.38 | - | - |
| 25 | NTPC-Khargone U#1 | 647 | 647 | 129 | 1.50 | 97 | 226 |
| 26 | NTPC-Khargone U#2 | 360 | 360 | 72 | 1.50 | 54 | 126 |
| | Sub Total | 29,283 | 29,283 | 3,318 | | 5,271 | 8,589 |
| | Others | | | | | | |
| 1 | Captive Power | 2 | 2 | - | 2.13 | - | - |
| | Renewable | | | | | | |
| 1 | Wind Farms | 6,671 | 6,671 | - | 3.78 | 2522 | 2522 |
| 2 | Solar | 1,744 | 1,744 | - | 11.45 | 1997 | 1997 |
| 3 | Small/Mini Hydal | 55 | 55 | - | 3.39 | 19 | 19 |
| 4 | Small/Mini Hydal (New) | 44 | 44 | - | 3.29 | 14 | 14 |
| 5 | Biomass | 210 | 210 | 40 | 4.17 | 88 | 128 |
| 6 | Solar(New) | 950 | 950 | - | 2.66 | 253 | 253 |
| 7 | Wind (New) | 589 | 589 | - | 2.44 | 144 | 144 |
| 8 | Others (New) | 14 | 14 | - | 6.66 | 9 | 9 |
| | Sub Total | 10,280 | 10,280 | 40 | | 5,045 | 5,085 |
| | TOTAL | 108944 | 99680 | 11900 | | 24734 | 36634 |

Table 5-28: Projected Power Purchase cost for FY 2020-21

| Sr. No. | Name of the Station | Available | Dispatch | Fixed Cost | Variable Cost | Variable Cost | Total Cost |
|---------|-----------------------|-----------|----------|------------|---------------|---------------|------------|
| | | (MUs) | (MUs) | (Rs. Cr.) | (Rs. /kWh) | (Rs.Cr.) | (Rs. Cr.) |
| | GSECL | | | | | | |
| 1 | GSECL Gandhinagar – 5 | 1,314 | 1,314 | 23 | 3.50 | 460 | 483 |
| 2 | GSECL Wanakbori – 7 | 1,341 | 1,341 | 62 | 3.21 | 430 | 492 |
| 3 | GSECL Utran Expan | 250 | 159 | - | 5.35 | 85 | 85 |
| 4 | GSECL Dhuvaran – 7 | 191 | 191 | 61 | 1.49 | 28 | 89 |
| 5 | GSECL Dhuvaran – 8 | 361 | 361 | 86 | 1.28 | 46 | 132 |
| 6 | GSECL Ukai | 4,133 | 4,133 | 262 | 3.39 | 1401 | 1663 |



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| Sr. No | Name of the Station | Availabl e | Dispatc h | Fixed Cost | Variabl e Cost | Variabl e Cost | Total Cost |
|--------|--|--------------|--------------|--------------|----------------|----------------|--------------|
| | | (MUs) | (MUs) | (Rs. Cr.) | (Rs. /kWh) | (Rs.Cr.) | (Rs. Cr.) |
| 7 | GSECL Ukai Expan | 3,500 | 3,500 | 447 | 3.04 | 1065 | 1512 |
| 8 | GSECL Gandhinagar 3-4 | 2,052 | 166 | 204 | 3.74 | 62 | 266 |
| 9 | GSECL Wanakbori 1-6 | 8,538 | 8,538 | 448 | 3.29 | 2809 | 3257 |
| 10 | GSECL Sikka Expansion | 2,790 | 844 | 629 | 3.65 | 308 | 937 |
| 11 | GSECL Kutch Lignite 1-3 | 867 | 867 | 207 | 2.16 | 187 | 394 |
| 12 | GSECL Kutch Lignite 4 | 247 | 247 | 62 | 1.98 | 49 | 111 |
| 13 | GSECL Ukai Hydro | 311 | 311 | 42 | - | - | 42 |
| 14 | GSECL Kadana Hydro | 288 | 288 | 73 | - | - | 73 |
| 15 | BECL | 3,481 | 3,481 | 879 | 2.15 | 748 | 1627 |
| 16 | Dhuvaran CCPP III | 30 | 30 | 159 | 5.77 | 17 | 176 |
| 17 | GSECL Wanakbori Ext U#8 | 5,614 | 5,614 | 905 | 2.94 | 1651 | 2555 |
| | Sub Total | 35308 | 31384 | 4,548 | | 9349 | 13897 |
| | | | | | | | |
| | IPPs | | | | | | |
| 1 | Gujarat State Energy Generation | 2 | 2 | 49 | 6.11 | 1 | 50 |
| 2 | Gujarat State Energy Generation Expansion | 187 | 154 | 180 | 5.19 | 80 | 260 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | - | - | - | 4.5 | - | - |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 1,411 | 1,411 | 129 | 1.71 | 241 | 370 |
| 5 | Gujarat Mineral Development Corp. | 1,131 | 1,131 | 124 | 1.26 | 143 | 267 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 105 | 105 | 5 | 2.27 | 24 | 29 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1,484 | 1,484 | 273 | 1.88 | 279 | 552 |
| 8 | GPPC Pipavav | 167 | 167 | 325 | 4.37 | 73 | 398 |
| 9 | Mundra UMPP CGPL | 11,689 | 11,689 | 1,129 | 1.66 | 1943 | 3072 |
| 10 | Adani Power Ltd | 8,023 | 8,023 | 975 | 1.81 | 1450 | 2425 |
| 11 | Essar Power Bid 2 | 2,464 | 2,464 | 354 | 1.92 | 473 | 827 |
| 12 | ACB India Ltd | 1,410 | 1,410 | 201 | 0.82 | 116 | 317 |
| 13 | Power Exchange | 3,000 | 150 | - | 4.50 | 68 | 68 |
| 14 | Short Term Power Purchase | 3,000 | 3,000 | - | 3.50 | 1050 | 1050 |
| | Sub Total | 34073 | 31190 | 3744 | | 5939 | 9683 |
| | | | | | | | |
| | Central Sector | | | | | | |
| 1 | NPC-Tarapur (1 & 2) | 539 | 539 | - | 2.08 | 112 | 112 |
| 2 | NPC-Tarapur (3 & 4) | 1,292 | 1,292 | - | 3.10 | 401 | 401 |
| 3 | NPC-Kakrapar | 504 | 504 | - | 2.39 | 121 | 121 |
| 4 | NTPC-Vindhyachal – I | 1,613 | 1,613 | 23 | 1.62 | 262 | 285 |
| 5 | NTPC-Vindhyachal – II | 1,796 | 1,796 | 128 | 1.52 | 273 | 401 |
| 6 | NTPC-Vindhyachal – III | 2,076 | 2,076 | 212 | 1.52 | 316 | 528 |
| 7 | NTPC-Korba | 2,651 | 2,651 | 23 | 1.46 | 387 | 410 |
| 8 | NTPC-Korba –II | 717 | 717 | 98 | 1.43 | 103 | 201 |
| 9 | NTPC-Kawas | 696 | 696 | 113 | 2.56 | 178 | 291 |
| 10 | NTPC-Jhanor | 1,116 | 1,116 | 132 | 2.39 | 267 | 399 |
| 11 | NTPC-Sipat-I | 3,938 | 3,938 | 519 | 1.30 | 512 | 1031 |
| 12 | NTPC-Sipat – II | 1,445 | 1,445 | 250 | 1.35 | 194 | 444 |
| 13 | NTPC-Kahlagaon | 910 | 910 | 106 | 2.31 | 210 | 316 |
| 14 | NTPC-Vindhyachal – IV | 1,777 | 1,777 | 280 | 1.51 | 269 | 549 |
| 15 | NTPC-Mauda | 1,671 | 1,671 | 320 | 2.79 | 466 | 786 |



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| Sr. No | Name of the Station | Availabl e | Dispatc h | Fixed Cost | Variabl e Cost | Variabl e Cost | Total Cost |
|--------|----------------------------|---------------|---------------|--------------|----------------|----------------|--------------|
| | | (MUs) | (MUs) | (Rs. Cr.) | (Rs. /kWh) | (Rs.Cr.) | (Rs. Cr.) |
| 16 | NTPC-Vindhyachal – V | 765 | 765 | 118 | 1.57 | 120 | 238 |
| 17 | NTPC-Mauda II | 2,063 | 2,063 | 380 | 2.50 | 516 | 896 |
| 18 | SSNNL | 146 | 146 | - | 2.03 | 30 | 30 |
| 19 | NTPC-Lara U#1 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 22 | NTPC-Lara U#2 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 23 | NPC Kakrapar Ext U#1 | 139 | 139 | 10 | 2.38 | 33 | 43 |
| 24 | NPC Kakrapar Ext U#2 | 139 | 139 | 10 | 2.38 | 33 | 43 |
| 25 | NTPC-Khargone U#1 | 863 | 863 | 172 | 1.50 | 129 | 301 |
| 26 | NTPC-Khargone U#2 | 863 | 863 | 172 | 1.50 | 129 | 301 |
| | Sub Total | 30955 | 30955 | 3590 | | 5547 | 9137 |
| | Others | | | | | | |
| 1 | Captive Power | 2 | 2 | - | 2.13 | - | - |
| | Renewable | | | | | | |
| 1 | Wind Farms | 6,671 | 6,671 | - | 3.78 | 2522 | 2522 |
| 2 | Solar | 1,744 | 1,744 | - | 11.45 | 1997 | 1997 |
| 3 | Small/Mini Hydal | 55 | 55 | - | 3.39 | 19 | 19 |
| 4 | Small/Mini Hydal (New) | 44 | 44 | - | 3.29 | 14 | 14 |
| 5 | Biomass | 210 | 210 | 40 | 4.17 | 88 | 128 |
| 6 | Solar(New) | 2,161 | 2,161 | - | 2.54 | 549 | 549 |
| 7 | Wind (New) | 1,058 | 1,058 | - | 2.44 | 258 | 258 |
| 8 | Others (New) | 177 | 177 | - | 6.9 | 122 | 122 |
| | Sub Total | 12,123 | 12,123 | 40 | | 5,567 | 5,607 |
| | TOTAL | 112459 | 105652 | 11923 | | 26401 | 38323 |

5.8.3 Transmission and other Cost

Petitioner's submission:

UGVCL has submitted that the total power purchase cost for the company for the remaining control period, FY 2019-20 to FY 2020-21 consists of: Transmission Charges, GUVNL cost and SLDC fees and charges.

5.8.3.1 Transmission charges

- Transmission charges to GETCO have been considered as per the approved charges for GETCO in the MYT Order for the remaining control period FY 2019-20 to FY 2020-21.
- PGCIL charges of FY 2017-18 are escalated at 5% y-o-y to derive PGCIL charges for FY 2019-20 to FY 2020-21.
- SLDC Fees & Charges also have been considered as per the MYT Order of



SLDC for FY 2019-20 & FY 2020-21.

Based on the transmission charges for PGCIL and GETCO, the transmission costs included in the calculation of bulk supply tariff of all DISCOMs is given below:

Table 5-29: Projected Transmission charges for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Sr. No. | Particulars | 2019-20 | 2020-21 |
|---------|--------------------------------------|---------|---------|
| 1 | PGCIL Charges | 2077 | 2181 |
| 2 | Annual Transmission Charges of GETCO | 4115 | 4502 |
| 3 | SLDC Charges | 16 | 15 |

5.8.3.2 GUVNL Cost

UGVCL has submitted that GUVNL is entrusted with the function of Bulk Power Purchase on behalf of four Distribution Companies and Bulk Supply of power to Distribution Companies for onwards retail supply to consumers, trading of Surplus power on behalf of Distribution Companies and activities related to overall coordination between the subsidiary companies. GUVNL is procuring power on behalf of all four Discoms to have economical and optimized power purchase cost. It also undertakes the function of raising and managing overall loan portfolio of GUVNL and its subsidiaries.

GUVNL is charging Rs.0.04 for every transaction of the unit. The total cost has been arrived at after considering the total dispatchable units required to be served to all the four DISCOMs during FY 2019-20 to FY 2020-21 as shown below:

Table 5-30: GUVNL Cost for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Sr. No. | Particulars | 2019-20 | 2020-21 |
|---------|-----------------------------------|---------|---------|
| 1 | GUVNL Cost at 4.00 Paisa per Unit | 399 | 423 |

5.8.4 Total Power Purchase Cost

The total power purchase cost consists of the cost of power purchase from various generating stations, transmission charges of PGCIL and GETCO, SLDC charges, GUVNL costs and trading units.

The total fixed costs, due to the capacity contracted, are passed on to the DISCOMs as shown in the Table below:



Table 5-31: Projected Fixed cost for DISCOMs for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Year | Fixed Cost | GETCO Cost | PGCIL Charges | SLDC Charges | Total Fixed Cost | Discom Fixed Cost |
|---------|------------|------------|---------------|--------------|------------------|-------------------|
| 2019-20 | 11900 | 4115 | 2077 | 16 | 18108 | 18108 |
| 2020-21 | 11923 | 4502 | 2181 | 15 | 18621 | 18621 |

The Table below shows the total variable cost for FY 2019-20 to FY 2020-21

Table 5-32: Projected Variable cost for DISCOMs and trading of energy from FY 2019-20 and FY 2020-21

(Rs. Crore)

| Year | Variable Cost | GUVNL Cost | Total Variable Cost | Dispatched (MUs) | Variable Cost Rs./ kWh | Discom (MUs) | Variable Cost |
|---------|---------------|------------|---------------------|------------------|------------------------|--------------|---------------|
| 2019-20 | 24734 | 399 | 25132 | 99680 | 2.52 | 99680 | 25132 |
| 2020-21 | 26401 | 423 | 26824 | 105652 | 2.54 | 105652 | 26824 |

5.8.5 Net Power Purchase Cost

The net power purchase cost is shown in the Table below:

Table 5-33: Projected Net Power Purchase cost for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Year | Discom Fixed Cost | Discom Variable Cost | Total Power Purchase Cost |
|---------|-------------------|----------------------|---------------------------|
| 2019-20 | 18108 | 25132 | 43241 |
| 2020-21 | 18621 | 26824 | 45445 |

5.8.6 Bulk Supply Tariff (BST)

The Objective of the differentiation of the BST between DISCOMs is due to the fact that the revenue from tariffs for each DISCOMs are different due to different consumer mix and therefore, it is necessary to build a mechanism in the projections to bring them to a level playing field. The basic objective of Bulk Supply Tariff is that:

- ❖ GUVNL shall purchase power from various sources in bulk and supply power in bulk to DISCOMs for onward retail supply.
- ❖ To ensure uniform retail consumer tariffs in four state owned DISCOMs.
- ❖ Since each of the DISCOMs were incorporated on the basis of earlier zonal system, the consumer mix and consumption mix is different for each DISCOM. Consequently, the revenue earning capability of each DISCOM is different.



- ❖ It is necessary to build a mechanism to bring them to a level playing field in their paying capacity for power purchase to be achieved through Bulk Supply Tariff (BST) to each of the DISCOMs.

By undertaking the BST method, it would be possible to ensure uniform retail consumer tariffs in the four DISCOMs.

5.9 Power Purchase Cost – Commission’s analysis

5.9.1 Power Purchase Sources

As mentioned in Para 5.8.1, UGVCL has submitted that GUVNL has entered into contracts for the existing capacity with GSECL, Central Generating Companies, IPPs, renewable energy sources, Hydro, Solar, Wind, Other RE Sources, IPPs and Power tied up through competitive bidding etc. The details of the existing plants are given in Table 5-24. GUVNL has also entered into contract for additional capacity likely to be commissioned during FY 2019-20 and FY 2020-21. The details of additional plants likely to be commissioned during FY 2019-20 and FY 2020-21 are given in Table 5-25. The capacity approved by the Commission in the MYT Order dated 31st March, 2017 and projected by petitioner in Mid-Term Review from each of the sources are summarised in the Table below:

Table 5-34: Capacity Contracted Source – Wise by GUVNL in the MYT Order and Now Submitted by UGVCL for the period FY 2019-20 and FY 2020-21

(MW)

| Sl. No. | Particulars | 2019-20 | | 2020-21 | |
|----------|-----------------------------|-----------------------|----------------------|-----------------------|----------------------|
| | | Approved in MYT Order | Projected in the MTR | Approved in MYT Order | Projected in the MTR |
| 1 | GSECL | 6817 | 6817 | 8417 | 6817 |
| 2 | IPPs | 2001 | 2166 | 2001 | 2166 |
| 3 | Central Generating Stations | 5577 | 6740 | 5654 | 7216 |
| 4 | Renewable | 3409 | 4863 | 3409 | 4863 |
| 5 | Competitive Bidding | 5005 | 3884 | 5005 | 3884 |
| 6 | Others – CPP | 8 | 8 | 8 | 8 |
| 7 | Total | 22817 | 24478 | 24494 | 24954 |

5.9.2 Power Purchase during FY 2019-20 and FY 2020-21

The power purchase for the period FY 2019-20 and FY 2020-21 is based on the energy requirement of UGVCL / four DISCOMs approved by the Commission.



The source wise Power available and dispatchable units based on the merit despatch in the MYT Order and as projected in Mid-Term Review for FY 2019-20 and FY 2020-21 are given in the Table below:

Table 5-35: Energy Available & Dispatchable as approved in MYT order and projected in MTR for FY 2019-20

| Sr. No. | Particulars | Approved in the MYT Order | | Projected in MTR | |
|---------|--|---------------------------|--------------|------------------|---------------|
| | | Available MUs | Dispatch MUs | Available MUs | Dispatch MUs |
| | GSECL | | | | |
| 1 | GSECL Gandhinagar – 5 | 1339 | 84 | 1,314 | 1,314 |
| 2 | GSECL Wanakbori – 7 | 1339 | 84 | 1,341 | 1,341 |
| 3 | GSECL Utran Expan | 1910 | 32 | 250 | 159 |
| 4 | GSECL Dhuvaran – 7 | 362 | 45 | 191 | 191 |
| 5 | GSECL Dhuvaran – 8 | 382 | 48 | 361 | 361 |
| 6 | GSECL Ukai | 3890 | 243 | 4,133 | 4,133 |
| 7 | GSECL Ukai Expan | 3294 | 395 | 3,500 | 3,500 |
| 8 | GSECL Gandhinagar 3-4 | 2649 | 166 | 2,052 | 166 |
| 9 | GSECL Wanakbori 1-6 | 8035 | 502 | 8,538 | 8,538 |
| 10 | GSECL Sikka Expansion | 3189 | 3189 | 2,790 | 199 |
| 11 | GSECL Kutch Lignite 1-3 | 1243 | 1243 | 867 | 867 |
| 12 | GSECL Kutch Lignite 4 | 463 | 463 | 247 | 247 |
| 13 | GSECL Ukai Hydro | 478 | 478 | 311 | 311 |
| 14 | GSECL Kadana Hydro | 287 | 287 | 288 | 288 |
| 15 | BECL | 3084 | 3084 | 3,481 | 3,481 |
| 16 | Dhuvaran CAPP III | 1917 | 32 | 30 | 30 |
| 17 | GSECL Wanakbori Ext U#8 | 5608 | 330 | 5,614 | 5,614 |
| | Sub Total | 39471 | 10704 | 35,308 | 30,740 |
| | | | | | |
| | IPP's | | | | |
| 1 | Gujarat State Energy Generation | 795 | 13 | 2 | 2 |
| 2 | Gujarat State Energy Generation Expansion | 1845 | 31 | 187 | 154 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | - | - | - | - |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 1433 | 1433 | 1,411 | 1,411 |
| 5 | Gujarat Mineral Development Corp. | 1577 | 1577 | 1,131 | 1,131 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 214 | 4 | 105 | 105 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1265 | 1265 | 1,484 | 1,484 |
| 8 | GPPC Pipavav | 472 | 60 | 167 | 167 |
| 9 | Mundra UMPP CGPL | 12649 | 12649 | 11,689 | 11,689 |
| 10 | Adani Power Ltd | 14892 | 14892 | 8,023 | 8,023 |
| 11 | Essar Power Bid 2 | 7446 | 7446 | 2,464 | 2,464 |
| 12 | ACB India Ltd | 1489 | 1489 | 1,410 | 1,410 |
| 13 | Power Exchange | - | - | 3,000 | 150 |
| 14 | Short Term Power Purchase | - | - | 3,000 | 1,187 |
| | Sub Total | 44077 | 40859 | 34,073 | 29,377 |
| | | | | | |
| | Central Sector | | | | |



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| Sr. No. | Particulars | Approved in the MYT Order | | Projected in MTR | |
|---------|----------------------------|---------------------------|--------------|------------------|---------------|
| | | Available MUs | Dispatch MUs | Availabe MUs | Dispatch MUs |
| 1 | NPC-Tarapur (1 & 2) | 1072 | 1072 | 539 | 539 |
| 2 | NPC-Tarapur (3 & 4) | 1836 | 1836 | 1,292 | 1,292 |
| 3 | NPC-Kakrapar | 814 | 814 | 504 | 504 |
| 4 | NTPC-Vindhyachal – I | 1467 | 1467 | 1,613 | 1,613 |
| 5 | NTPC-Vindhyachal – II | 1566 | 1566 | 1,796 | 1,796 |
| 6 | NTPC-Vindhyachal – III | 1859 | 1852 | 2,076 | 2,076 |
| 7 | NTPC-Korba | 2506 | 2506 | 2,651 | 2,651 |
| 8 | NTPC-Korba –II | 668 | 668 | 717 | 717 |
| 9 | NTPC-Kawas | 636 | 79 | 696 | 696 |
| 10 | NTPC-Jhanor | 806 | 101 | 1,116 | 1,116 |
| 11 | NTPC-Sipat-I | 3759 | 3759 | 3,938 | 3,938 |
| 12 | NTPC-Sipat – II | 1901 | 1901 | 1,445 | 1,445 |
| 13 | NTPC-Kahlagaoon | 924 | 924 | 910 | 910 |
| 14 | NTPC-Vindhyachal – IV | 1573 | 1573 | 1,777 | 1,777 |
| 15 | NTPC-Mauda | 1573 | 98 | 1,671 | 1,671 |
| 16 | NTPC-Vindhyachal – V | 612 | 612 | 765 | 765 |
| 17 | NTPC-Mauda II U#1 & U#2 | 2064 | 2064 | 2,063 | 2,063 |
| 18 | SSNNL | 335 | 335 | 146 | 146 |
| 19 | NTPC-Lara U#1 | 982 | 982 | 551 | 551 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 772 | 772 | 1,067 | 1,067 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 772 | 772 | 622 | 622 |
| 22 | NTPC-Lara U#2 | 982 | 982 | 321 | 321 |
| 23 | NPC Kakrapar Ext U#1 | 1542 | 1542 | - | - |
| 24 | NPC Kakrapar Ext U#2 | 1542 | 1542 | - | - |
| 25 | NTPC-Khargone U#1 | 515 | 515 | 647 | 647 |
| 26 | NTPC-Khargone U#2 | 193 | 193 | 360 | 360 |
| 27 | NTPC-North Karanpura U#1 | 540 | 540 | - | - |
| 28 | NTPC-North Karanpura U#2 | 270 | 270 | - | - |
| | Sub Total | 34081 | 31337 | 29283 | 29283 |
| | | | | | |
| | Others | | | | |
| 1 | Captive Power | 6 | 6 | 2 | 2 |
| | Renewable | | | | |
| 1 | Wind Farms | 4280 | 4280 | 6,671 | 6,671 |
| 2 | Solar | 1368 | 1368 | 1,744 | 1,744 |
| 3 | Small/Mini Hydal | 45 | 45 | 55 | 55 |
| 4 | Small/Mini Hydal (New) | - | - | 44 | 44 |
| 5 | Biomass | 1 | 1 | 210 | 210 |
| 6 | Solar(New) | 3832 | 3832 | 950 | 950 |
| 7 | Wind (New) | 3331 | 3331 | 589 | 589 |
| 8 | Others (New) | 663 | 663 | 14 | 14 |
| | Sub Total | 13526 | 13526 | 10,280 | 10,280 |
| | TOTAL | 131154 | 96426 | 1,08,944 | 99,680 |



Table 5-36: Energy Available & Dispatchable as approved in MYT order and projected in MTR for FY 2020-21

| Sr. No. | Particulars | Approved in the MYT Order | | Projected in MTR | |
|---------|--|---------------------------|--------------|------------------|---------------|
| | | Available MUs | Dispatch MUs | Available MUs | Dispatch MUs |
| | GSECL | | | | |
| 1 | GSECL Gandhinagar – 5 | 1339 | 84 | 1,314 | 1,314 |
| 2 | GSECL Wanakbori – 7 | 1339 | 84 | 1,341 | 1,341 |
| 3 | GSECL Utran Expan | 1910 | 32 | 250 | 159 |
| 4 | GSECL Dhuvaran – 7 | 362 | 45 | 191 | 191 |
| 5 | GSECL Dhuvaran – 8 | 382 | 48 | 361 | 361 |
| 6 | GSECL Ukai | 3890 | 243 | 4,133 | 4,133 |
| 7 | GSECL Ukai Expan | 3294 | 854 | 3,500 | 3,500 |
| 8 | GSECL Gandhinagar 3-4 | 2649 | 166 | 2,052 | 166 |
| 9 | GSECL Wanakbori 1-6 | 8035 | 502 | 8,538 | 8,538 |
| 10 | GSECL Sikka Expansion | 3189 | 3189 | 2,790 | 844 |
| 11 | GSECL Kutch Lignite 1-3 | 1243 | 1243 | 867 | 867 |
| 12 | GSECL Kutch Lignite 4 | 463 | 463 | 247 | 247 |
| 13 | GSECL Ukai Hydro | 478 | 478 | 311 | 311 |
| 14 | GSECL Kadana Hydro | 287 | 287 | 288 | 288 |
| 15 | BECL | 3084 | 3084 | 3,481 | 3,481 |
| 16 | Dhuvaran CCPP III | 1917 | 32 | 30 | 30 |
| 17 | GSECL Wanakbori Ext U#8 | 5608 | 330 | 5,614 | 5,614 |
| 18 | Dhuvaran STPS | 11217 | 660 | - | - |
| | Sub Total | 50688 | 11824 | 35,308 | 31,384 |
| | | | | | |
| | IPP's | | | | |
| 1 | Gujarat State Energy Generation | 795 | 13 | 2 | 2 |
| 2 | Gujarat State Energy Generation Expansion | 1845 | 31 | 187 | 154 |
| 3 | Gujarat Industries Power Co Ltd (SLPP) | 1433 | 1433 | 1,411 | 1,411 |
| 4 | Gujarat Mineral Development Corp. | 1577 | 1577 | 1,131 | 1,131 |
| 5 | Gujarat Industries Power Co Ltd (145 MW) | 214 | 4 | 105 | 105 |
| 6 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1265 | 1265 | 1,484 | 1,484 |
| 7 | GPPC Pipavav | 472 | 60 | 167 | 167 |
| 8 | Mundra UMPP CGPL | 12649 | 12649 | 11,689 | 11,689 |
| 9 | Adani Power Ltd | 14892 | 14892 | 8,023 | 8,023 |
| 10 | Essar Power Bid 2 | 7446 | 7446 | 2,464 | 2,464 |
| 11 | ACB India Ltd | 1489 | 1489 | 1,410 | 1,410 |
| 12 | Power Exchange | - | - | 3,000 | 150 |
| 13 | Short Term Power Purchase | - | - | 3,000 | 3,000 |
| | Sub Total | 44077 | 40859 | 34,073 | 31,190 |
| | | | | | |
| | Central Sector | | | | |
| 1 | NPC-Tarapur (1 & 2) | 1072 | 1072 | 539 | 539 |
| 2 | NPC-Tarapur (3 & 4) | 1836 | 1836 | 1,292 | 1,292 |
| 3 | NPC-Kakrapar | 814 | 814 | 504 | 504 |
| 4 | NTPC-Vindhyachal – I | 1467 | 1467 | 1,613 | 1,613 |



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| Sr. No. | Particulars | Approved in the MYT Order | | Projected in MTR | |
|---------|----------------------------|---------------------------|---------------|------------------|---------------|
| | | Available MUs | Dispatch MUs | Available MUs | Dispatch MUs |
| 5 | NTPC-Vindhyachal – II | 1566 | 1566 | 1,796 | 1,796 |
| 6 | NTPC-Vindhyachal – III | 1859 | 1852 | 2,076 | 2,076 |
| 7 | NTPC-Korba | 2506 | 2506 | 2,651 | 2,651 |
| 8 | NTPC-Korba –II | 668 | 668 | 717 | 717 |
| 9 | NTPC-Kawas | 636 | 79 | 696 | 696 |
| 10 | NTPC-Jhanor | 806 | 101 | 1,116 | 1,116 |
| 11 | NTPC-Sipat-I | 3759 | 3759 | 3,938 | 3,938 |
| 12 | NTPC-Sipat – II | 1901 | 1901 | 1,445 | 1,445 |
| 13 | NTPC-Kahlagaon | 924 | 924 | 910 | 910 |
| 14 | NTPC-Vindhyachal – IV | 1573 | 1573 | 1,777 | 1,777 |
| 15 | NTPC-Mauda | 1573 | 98 | 1,671 | 1,671 |
| 16 | NTPC-Vindhyachal – V | 612 | 612 | 765 | 765 |
| 17 | NTPC-Mauda II U#1 & U#2 | 2064 | 2064 | 2,063 | 2,063 |
| 18 | SSNNL | 335 | 335 | 146 | 146 |
| 19 | NTPC-Lara U#1 | 982 | 982 | 551 | 551 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 772 | 772 | 1,067 | 1,067 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 772 | 772 | 1,067 | 1,067 |
| 22 | NTPC-Lara U#2 | 982 | 982 | 551 | 551 |
| 23 | NPC Kakrapar Ext U#1 | 1542 | 1542 | 139 | 139 |
| 24 | NPC Kakrapar Ext U#2 | 1542 | 1542 | 139 | 139 |
| 25 | NTPC-Khargone U#1 | 772 | 772 | 863 | 863 |
| 26 | NTPC-Khargone U#2 | 772 | 772 | 863 | 863 |
| 27 | NTPC-North Karanpura U#1 | 540 | 540 | - | - |
| 28 | NTPC-North Karanpura U#2 | 540 | 540 | - | - |
| 29 | NTPC-North Karanpura U#3 | 540 | 540 | - | - |
| | Sub Total | 35727 | 32986 | 30,955 | 30,955 |
| | Others | | | | |
| 1 | Captive Power | 6 | 6 | 2 | 2 |
| | Renewable | | | | |
| 1 | Wind Farms | 4280 | 4280 | 6,671 | 6,671 |
| 2 | Solar | 1368 | 1368 | 1,744 | 1,744 |
| 3 | Small/Mini Hydal | 45 | 45 | 55 | 55 |
| 4 | Small/Mini Hydal (New) | - | - | 44 | 44 |
| 5 | Biomass | 1 | 1 | 210 | 210 |
| 6 | Solar (New) | 5332 | 5332 | 2,161 | 2,161 |
| 7 | Wind (New) | 3809 | 3809 | 1,058 | 1,058 |
| 8 | Others (New) | 699 | 699 | 177 | 177 |
| | Sub Total | 15540 | 15540 | 12,123 | 12,123 |
| | TOTAL | 146031 | 101205 | 112459 | 105652 |

The availability and dispatchable energy from all sources projected by UGVCL in the Mid-Term Review for FY 2019-20 and FY 2020-21 and as approved by the Commission in the MYT Order dated 31st March, 2017 are summarised below:

Table 5-37: Availability and Dispatchable as approved in MYT Order and as Projected in MTR for FY 2019-20 and FY 2020-21

(MUs)

| Sl. No. | Particulars | Approved in MYT Order | | Projected in MTR | |
|---------|--------------|-----------------------|---------|------------------|---------|
| | | 2019-20 | 2020-21 | 2019-20 | 2020-21 |
| 1 | Available | 131154 | 146031 | 108944 | 112459 |
| 2 | Dispatchable | 96426 | 101205 | 99680 | 105652 |

The availability projected in the Mid-Term Review of FY 2019-20 and FY 2020-21 is less by 22210 MUs during FY 2019-20 and 33572 MUs during FY 2020-21 compared to availability approved in the MYT order. The reduced availability is due to delay in commissioning of some of the generating stations.

5.9.3 Merit Order dispatch and Total Energy requirement including tradable energy

As discussed in Para 5.8.1, GUVNL has entered into contract for the existing capacity with GSECL, Central generating stations, IPPs, renewable energy sources and power tied up through competitive bidding. The details of existing plants etc., are given in Table 5-24.

GUVNL has also entered in to contract for new capacity that is likely to be commissioned during FY 2019-20 and FY 2020-21. The details of new plants likely to be commissioned during FY 2019-20 and FY 2020-21 are given in Table 5-25.

The details of capacity contracted by GUVNL, from the existing plant and the additional plants envisaged during FY 2019-20 and FY 2020-21 with operational parameters, fixed and variable costs are given in Tables 5-27 and 5-28.

Power Purchase in merit order

As discussed in Para 5.8.2, in order to optimize the Power Purchase Cost GVUNL has worked out a comprehensive merit order despatch (MOD).

The quantum of power dispatchable (to be purchased) is arrived at based on the energy available from various sources less energy requirement by the four DISCOMs and energy that could be traded by GUVNL as given in the Table below:

Table 5-38: Energy requirement and Energy dispatchable as projected by the DISCOMs

| Sr. No. | DISCOM | Energy Requirement (MUs) | |
|----------|--|--------------------------|---------------|
| | | 2019-20 | 2020-21 |
| 1 | DGVCL | 22552 | 23688 |
| 2 | MGVCL | 12523 | 13256 |
| 3 | UGVCL | 26849 | 28680 |
| 4 | PGVCL | 37757 | 40028 |
| 5 | Total requirement of four DISCOMs | 99680 | 105652 |
| 6 | Tradable energy projected by GUVNL | 0 | 0 |
| 7 | Total Despatch units | 99680 | 105652 |

Though the availability is in the order of 108944 MUs and 112459 MUs during FY 2019-20 and FY 2020-21, the despatch is limited to 99680 MUs and 105652 MUs as above to meet the total requirement of the four DISCOMs.

The projected dispatchable energy is about 91.49% of the projected available energy during FY 2019-20 (the available energy being 108944 MUs and dispatchable energy 99680 MUs) and 93.95% during FY 2020-21 (the available energy being 112459 and dispatchable energy 105652 MUs) as shown in Tables 5-37.

The Commission in the analysis of energy sales projected by DISCOMs has approved energy sales and energy requirement of each DISCOM.

The energy requirement projected and energy requirement approved for each DISCOM by the Commission are summarised below:

Table 5-39: Energy requirement projected and approved for each DISCOM for (MUs)

| Sr. No. | DISCOM | Energy Requirement | | | |
|----------|--|--------------------|--------------|---------------|---------------|
| | | 2019-20 | | 2020-21 | |
| | | Projected | Approved | Projected | Approved |
| 1 | DGVCL | 22552 | 22552 | 23688 | 23688 |
| 2 | MGVCL | 12523 | 12523 | 13256 | 13256 |
| 3 | PGVCL | 37757 | 37757 | 40028 | 40028 |
| 4 | UGVCL | 26849 | 26849 | 28680 | 28680 |
| 5 | Total requirement of four DISCOMs | 99680 | 99680 | 105652 | 105652 |
| 6 | Tradable energy projected by GUVNL | - | - | - | - |
| 7 | Total Despatch units | 99680 | 99680 | 105652 | 105652 |



5.9.4 Power Purchase Cost for the period FY 2019-20 and FY 2020-21

UGVCL has submitted the power purchase costs as given in Table 5.33.

It is observed that Petitioner has not projected the purchase of power in accordance with the RPO requirement. The Commission has therefore, worked out the purchase of power from renewable sources in accordance with the RPO Regulations. Further, while considering the power purchase requirement, the merit order dispatch has been applied as specified in Para 5.8.2 above. It is also observed by the Commission that the Petitioner inadvertently not considered fixed cost of Utran Expansion for FY 2020-21. The Commission has considered the same.

Also, the fixed cost and variable cost for GSECL stations, IPPs, renewable and Central plants are taken as per actuals of FY 2017-18 as base power purchase cost. The approved requirement of power for all the DISCOMs put together, the Trading Units and revised dispatchable units for the FY 2019-20 and FY 2020-21 as discussed above are given in the Tables below:

Table 5-40: Approved Power Purchase Cost for FY 2019-20

| Sr. No. | Particulars | Available (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variable Cost (Rs. /Unit) | Variable Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|-------------------------|-----------------|----------------|------------------------|---------------------------|---------------------------|------------------------|
| | GSECL | | | | | | |
| 1 | GSECL Gandhinagar – 5 | 1,314 | 84 | 23 | 3.50 | 29 | 52 |
| 2 | GSECL Wanakbori – 7 | 1,341 | 1,341 | 62 | 3.21 | 430 | 492 |
| 3 | GSECL Utran Expan | 250 | 159 | 250 | 5.35 | 85 | 335 |
| 4 | GSECL Dhuvaran – 7 | 191 | 191 | 61 | 1.49 | 28 | 89 |
| 5 | GSECL Dhuvaran – 8 | 361 | 361 | 86 | 1.28 | 46 | 132 |
| 6 | GSECL Ukai | 4,133 | 2,424 | 262 | 3.39 | 822 | 1084 |
| 7 | GSECL Ukai Expan | 3,500 | 3,500 | 447 | 3.04 | 1065 | 1512 |
| 8 | GSECL Gandhinagar 3-4 | 2,052 | 166 | 204 | 3.74 | 62 | 266 |
| 9 | GSECL Wanakbori 1-6 | 8,538 | 8,538 | 448 | 3.29 | 2809 | 3257 |
| 10 | GSECL Sikka Expansion | 2,790 | 199 | 629 | 3.65 | 73 | 702 |
| 11 | GSECL Kutch Lignite 1-3 | 867 | 867 | 207 | 2.16 | 187 | 394 |
| 12 | GSECL Kutch Lignite 4 | 247 | 247 | 62 | 1.98 | 49 | 111 |
| 13 | GSECL Ukai Hydro | 311 | 311 | 42 | 0.00 | 0 | 42 |
| 14 | GSECL Kadana Hydro | 288 | 288 | 73 | 0.00 | 0 | 73 |
| 15 | BECL | 3,481 | 3,481 | 879 | 2.15 | 748 | 1627 |
| 16 | Dhuvaran CCPP III | 30 | 30 | 159 | 5.77 | 17 | 176 |
| 17 | GSECL Wanakbori Ext U#8 | 5,614 | 5,614 | 905 | 2.94 | 1651 | 2555 |
| | Sub Total | 35,308 | 27,800 | 4,798 | | 8103 | 12,901 |
| | | | | | | | |
| | IPPs | | | | | | |



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| Sr. No. | Particulars | Available (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variable Cost (Rs. /Unit) | Variable Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|--|-----------------|----------------|------------------------|---------------------------|---------------------------|------------------------|
| 1 | Gujarat State Energy Generation | 2 | 2 | 49 | 6.11 | 1 | 50 |
| 2 | Gujarat State Energy Generation Expansion | 187 | 154 | 180 | 5.19 | 80 | 260 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | 0 | 0 | 0 | 4.50 | 0 | 0 |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 1,411 | 1,411 | 129 | 1.71 | 241 | 370 |
| 5 | Gujarat Mineral Development Corp. | 1,131 | 1,131 | 124 | 1.26 | 142 | 266 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 105 | 105 | 5 | 2.27 | 24 | 29 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1,484 | 1,484 | 273 | 1.88 | 279 | 552 |
| 8 | GPPC Pipavav | 167 | 167 | 325 | 4.37 | 73 | 398 |
| 9 | Mundra UMPP CGPL | 11,689 | 11,689 | 1,129 | 1.66 | 1943 | 3072 |
| 10 | Adani Power Ltd | 8,023 | 8,023 | 975 | 1.81 | 1450 | 2425 |
| 11 | Essar Power Bid 2 | 2,464 | 2,464 | 354 | 1.92 | 473 | 827 |
| 12 | ACB India Ltd | 1,410 | 1,410 | 201 | 0.82 | 115 | 316 |
| 13 | Power Exchange | 3,000 | 150 | 0 | 4.50 | 68 | 68 |
| 14 | Short Term Power Purchase / Power Exchange | 3,000 | 150 | 0 | 3.50 | 52 | 52 |
| | Sub Total | 34,073 | 28,340 | 3,744 | | 4941 | 8,685 |
| | Central Sector | | | | | | |
| 1 | NPC-Tarapur (1 & 2) | 539 | 539 | 0 | 2.08 | 112 | 112 |
| 2 | NPC-Tarapur (3 & 4) | 1,292 | 1,292 | 0 | 3.10 | 400 | 400 |
| 3 | NPC-Kakrapar | 504 | 504 | 0 | 2.39 | 121 | 121 |
| 4 | NTPC-Vindhyachal – I | 1,613 | 1,613 | 23 | 1.62 | 262 | 285 |
| 5 | NTPC-Vindhyachal – II | 1,796 | 1,796 | 128 | 1.52 | 273 | 401 |
| 6 | NTPC-Vindhyachal – III | 2,076 | 2,076 | 212 | 1.52 | 316 | 528 |
| 7 | NTPC-Korba | 2,651 | 2,651 | 23 | 1.46 | 387 | 410 |
| 8 | NTPC-Korba –II | 717 | 717 | 98 | 1.43 | 103 | 201 |
| 9 | NTPC-Kawas | 696 | 696 | 113 | 2.56 | 178 | 291 |
| 10 | NTPC-Jhanor | 1,116 | 1,116 | 132 | 2.39 | 267 | 399 |
| 11 | NTPC-Sipat-I | 3,938 | 3,938 | 519 | 1.30 | 513 | 1032 |
| 12 | NTPC-Sipat – II | 1,445 | 1,445 | 250 | 1.35 | 194 | 444 |
| 13 | NTPC-Kahlagaon | 910 | 910 | 106 | 2.31 | 210 | 316 |
| 14 | NTPC-Vindhyachal – IV | 1,777 | 1,777 | 280 | 1.51 | 269 | 549 |
| 15 | NTPC-Mauda | 1,671 | 1,671 | 320 | 2.79 | 466 | 786 |
| 16 | NTPC-Vindhyachal – V | 765 | 765 | 118 | 1.57 | 120 | 238 |
| 17 | NTPC-Mauda II | 2,063 | 2,063 | 380 | 2.50 | 516 | 896 |
| 18 | SSNNL | 146 | 146 | 0 | 2.03 | 30 | 30 |



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| Sr. No. | Particulars | Available (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variable Cost (Rs. /Unit) | Variable Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|----------------------------|-----------------|----------------|------------------------|---------------------------|---------------------------|------------------------|
| 19 | NTPC-Lara U#1 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 622 | 622 | 89 | 1.50 | 93 | 182 |
| 22 | NTPC-Lara U#2 | 321 | 321 | 64 | 1.50 | 48 | 112 |
| 23 | NPC Kakrapar Ext U#1 | 0 | 0 | 0 | 2.38 | 0 | 0 |
| 24 | NPC Kakrapar Ext U#2 | 0 | 0 | 0 | 2.38 | 0 | 0 |
| 25 | NTPC-Khargone U#1 | 647 | 647 | 129 | 1.50 | 97 | 226 |
| 26 | NTPC-Khargone U#2 | 360 | 360 | 72 | 1.50 | 54 | 126 |
| | Sub Total | 29,283 | 29,283 | 3,318 | | 5271 | 8,589 |
| | Others | | | | | | |
| 1 | Captive Power | 2 | 2 | 0 | 2.13 | 0 | 0 |
| | Renewable | 0 | 0 | 0 | 0.00 | | |
| 1 | Wind Farms | 6,671 | 6,671 | 0 | 3.78 | 2520 | 2520 |
| 2 | Solar | 1,744 | 1,744 | 0 | 11.45 | 1997 | 1997 |
| 3 | Small/Mini Hydal | 55 | 55 | 0 | 3.39 | 19 | 19 |
| 4 | Small/Mini Hydal (New) | 44 | 44 | 0 | 3.29 | 15 | 15 |
| 5 | Biomass | 210 | 210 | 40 | 4.17 | 88 | 128 |
| 6 | Solar (New) | 3738 | 3,738 | 0 | 2.66 | 996 | 996 |
| 7 | Wind (New) | 1353 | 1,353 | 0 | 2.44 | 330 | 330 |
| 8 | Others (New) | 438 | 438 | 0 | 6.66 | 292 | 292 |
| | Sub Total | 14256 | 14,256 | 40 | | 6256 | 6,296 |
| | TOTAL | 112920 | 99680 | 11900 | | 24572 | 36472 |

Table 5-41: Approved Power Purchase Cost for FY 2020-21

| Sr. No. | Particulars | Available (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variable Cost (Rs. /Unit) | Variable Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|-----------------------|-----------------|----------------|------------------------|---------------------------|---------------------------|------------------------|
| | GSECL | | | | | | |
| 1 | GSECL Gandhinagar – 5 | 1,314 | 84 | 23 | 3.50 | 29 | 52 |
| 2 | GSECL Wanakbori – 7 | 1,341 | 1,341 | 62 | 3.21 | 430 | 492 |
| 3 | GSECL Utran Expan | 250 | 159 | 250 | 5.35 | 85 | 335 |
| 4 | GSECL Dhuvaran – 7 | 191 | 191 | 61 | 1.49 | 28 | 89 |
| 5 | GSECL Dhuvaran – 8 | 361 | 361 | 86 | 1.28 | 46 | 132 |
| 6 | GSECL Ukai | 4,133 | 3,800 | 262 | 3.39 | 1289 | 1551 |
| 7 | GSECL Ukai Expan | 3,500 | 3,500 | 447 | 3.04 | 1065 | 1512 |
| 8 | GSECL Gandhinagar 3-4 | 2,052 | 166 | 204 | 3.74 | 62 | 266 |
| 9 | GSECL Wanakbori 1-6 | 8,538 | 8,538 | 448 | 3.29 | 2809 | 3257 |



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| Sr. No. | Particulars | Availa be (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variab le Cost (Rs. /Unit) | Variabl e Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|--|-----------------|----------------|------------------------|----------------------------|----------------------------|------------------------|
| 10 | GSECL Sikka Expansion | 2,790 | 844 | 629 | 3.65 | 308 | 937 |
| 11 | GSECL Kutch Lignite 1-3 | 867 | 867 | 207 | 2.16 | 187 | 394 |
| 12 | GSECL Kutch Lignite - 4 | 247 | 247 | 62 | 1.98 | 49 | 111 |
| 13 | GSECL Ukai Hydro | 311 | 311 | 42 | 0.00 | 0 | 42 |
| 14 | GSECL Kadana Hydro | 288 | 288 | 73 | 0.00 | 0 | 73 |
| 15 | BECL | 3,481 | 3,481 | 879 | 2.15 | 748 | 1627 |
| 16 | Dhuvaran CCPP III | 30 | 30 | 159 | 5.77 | 17 | 176 |
| 17 | GSECL Wanakbori Ext U#8 | 5,614 | 5,614 | 905 | 2.94 | 1651 | 2555 |
| | Sub Total | 35,308 | 29,821 | 4,798 | | 8,805 | 13,603 |
| | | | | | | | |
| | IPPs | | | | | | |
| 1 | Gujarat State Energy Generation | 2 | 2 | 49 | 6.11 | 1 | 50 |
| 2 | Gujarat State Energy Generation Expansion | 187 | 154 | 180 | 5.19 | 80 | 260 |
| 3 | Gujarat Industries Power Co Ltd (165 MW) | 0 | 0 | 0 | 4.50 | 0 | 0 |
| 4 | Gujarat Industries Power Co Ltd (SLPP) | 1,411 | 1,411 | 129 | 1.71 | 241 | 370 |
| 5 | Gujarat Mineral Development Corp. | 1,131 | 1,131 | 124 | 1.26 | 142 | 266 |
| 6 | Gujarat Industries Power Co Ltd (145 MW) | 105 | 105 | 5 | 2.27 | 24 | 29 |
| 7 | Gujarat Industries Power Co Ltd (SLPP - Exp) | 1,484 | 1,484 | 273 | 1.88 | 279 | 552 |
| 8 | GPPC Pipavav | 167 | 167 | 325 | 4.37 | 73 | 398 |
| 9 | Mundra UMPP CGPL | 11,689 | 11,689 | 1,129 | 1.66 | 1943 | 3072 |
| 10 | Adani Power Ltd | 8,023 | 8,023 | 975 | 1.81 | 1450 | 2425 |
| 11 | Essar Power Bid 2 | 2,464 | 2,464 | 354 | 1.92 | 473 | 827 |
| 12 | ACB India Ltd | 1,410 | 1,410 | 201 | 0.82 | 115 | 316 |
| 13 | Power Exchange | 3,000 | 150 | 0 | 4.50 | 68 | 68 |
| 14 | Short Term Power Purchase / Power Exchange | 3,000 | 150 | 0 | 3.50 | 53 | 53 |
| | Sub Total | 34,073 | 28,340 | 3,744 | | 4,941 | 8,685 |
| | | | | | | | |
| | Central Sector | | | | | | |
| 1 | NPC-Tarapur (1 & 2) | 539 | 539 | 0 | 2.08 | 112 | 112 |
| 2 | NPC-Tarapur (3 & 4) | 1,292 | 1,292 | 0 | 3.10 | 400 | 400 |
| 3 | NPC-Kakrapar | 504 | 504 | 0 | 2.39 | 121 | 121 |
| 4 | NTPC-Vindhyachal – I | 1,613 | 1,613 | 23 | 1.62 | 262 | 285 |
| 5 | NTPC-Vindhyachal – II | 1,796 | 1,796 | 128 | 1.52 | 273 | 401 |
| 6 | NTPC-Vindhyachal – III | 2,076 | 2,076 | 212 | 1.52 | 316 | 528 |
| 7 | NTPC-Korba | 2,651 | 2,651 | 23 | 1.46 | 387 | 410 |
| 8 | NTPC-Korba –II | 717 | 717 | 98 | 1.43 | 103 | 201 |



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| Sr. No. | Particulars | Availa be (MUs) | Dispatch (MUs) | Fixed Cost (Rs. Crore) | Variab le Cost (Rs. /Unit) | Variabl e Cost (Rs. Crore) | Total Cost (Rs. Crore) |
|---------|----------------------------|-----------------|----------------|------------------------|----------------------------|----------------------------|------------------------|
| 9 | NTPC-Kawas | 696 | 696 | 113 | 2.56 | 178 | 291 |
| 10 | NTPC-Jhanor | 1,116 | 1,116 | 132 | 2.39 | 267 | 399 |
| 11 | NTPC-Sipat-I | 3,938 | 3,938 | 519 | 1.30 | 513 | 1032 |
| 12 | NTPC-Sipat – II | 1,445 | 1,445 | 250 | 1.35 | 194 | 444 |
| 13 | NTPC-Kahlagaon | 910 | 910 | 106 | 2.31 | 210 | 316 |
| 14 | NTPC-Vindhyachal – IV | 1,777 | 1,777 | 280 | 1.51 | 269 | 549 |
| 15 | NTPC-Mauda | 1,671 | 1,671 | 320 | 2.79 | 466 | 786 |
| 16 | NTPC-Vindhyachal – V | 765 | 765 | 118 | 1.57 | 120 | 238 |
| 17 | NTPC-Mauda II | 2,063 | 2,063 | 380 | 2.50 | 516 | 896 |
| 18 | SSNNL | 146 | 146 | 0 | 2.03 | 30 | 30 |
| 19 | NTPC-Lara U#1 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 20 | NTPC-Gadarwara Stage-I U#1 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 21 | NTPC-Gadarwara Stage-I U#2 | 1,067 | 1,067 | 152 | 1.50 | 160 | 312 |
| 22 | NTPC-Lara U#2 | 551 | 551 | 110 | 1.50 | 83 | 193 |
| 23 | NPC Kakrapar Ext U#1 | 139 | 139 | 10 | 2.38 | 33 | 43 |
| 24 | NPC Kakrapar Ext U#2 | 139 | 139 | 10 | 2.38 | 33 | 43 |
| 25 | NTPC-Khargone U#1 | 863 | 863 | 172 | 1.50 | 129 | 301 |
| 26 | NTPC-Khargone U#2 | 863 | 863 | 172 | 1.50 | 129 | 301 |
| | Sub Total | 30,955 | 30,955 | 3,590 | | 5,547 | 9,137 |
| | | | | | | | |
| | Others | | | | | | |
| 1 | Captive Power | 2 | 2 | 0 | 2.13 | 0.43 | 0.43 |
| | Renewable | 0 | 0 | | | | |
| 1 | Wind Farms | 6,671 | 6,671 | 0 | 3.78 | 2520 | 2,520 |
| 2 | Solar | 1,744 | 1,744 | 0 | 11.45 | 1997 | 1,997 |
| 3 | Small/Mini Hydal | 55 | 55 | 0 | 3.39 | 19 | 19 |
| 4 | Small/Mini Hydal (New) | 44 | 44 | 0 | 3.29 | 15 | 15 |
| 5 | Biomass | 210 | 210 | 40 | 4.17 | 88 | 128 |
| 6 | Solar(New) | 5387 | 5,387 | 0 | 2.54 | 1368 | 1,368 |
| 7 | Wind (New) | 1939 | 1,939 | 0 | 2.44 | 473 | 473 |
| 8 | Others (New) | 483 | 483 | 0 | 6.90 | 333 | 333 |
| | Sub Total | 16536 | 16536 | 40 | | 6812 | 6852 |
| | TOTAL | 116872 | 105652 | 12173 | | 26105 | 38277 |

The Commission has considered the despatchable and available energy from the sources considered by the Petitioner to arrive at projection of Power Purchase Cost for FY 2019-20 and FY 2020-21, however, the Petitioner shall follow the Merit Order Principles and Prudence Practices while availing power from different sources.



5.9.5 Transmission and Other Costs

5.9.5.1 Transmission Cost

Transmission cost include the cost to be paid to PGCIL for regional transmission and cost of GETCO for intra-state transmission.

Transmission charges of PGCIL are approved by the CERC and to be paid by GUVNL on the basis of calculation of Regional Energy Account of Western Region by WRLDC, hence the Commission accepts the projection of UGVCL/GUVNL for PGCIL charges. These charges are escalated at 5.72% y-o-y considering the actual charges of FY 2017-18 as the base.

The Petitioner has submitted that the Transmission charges of GETCO have been considered as per the MYT Order of GETCO for FY 2019-20 and FY 2020-21. The Commission has considered the Transmission charges of GETCO as approved in the MYT Order dated 31st March, 2017. The Commission accordingly approves the Transmission Charges payable to PGCIL and GETCO as given in the Table below:

Table 5-42: Transmission charges approved by the Commission for period

(Rs. Crore)

| Sl. No. | Particulars | 2019-20 | 2020-21 |
|---------|--|---------|---------|
| 1 | PGCIL Charges (Rs.Cr/annum) | 2077 | 2181 |
| 2 | Annual Transmission charges of GETCO (Rs. Crore) | 4115 | 4502 |

5.9.5.2 GUVNL Cost

UGVCL has submitted in Para 5.8.3 above that GUVNL is charging Rs. 0.04 for every transaction of one unit of energy for providing the services of procuring power and supply to DISCOMs, the overall co-ordination between the subsidiary companies and also undertaking the function of raising and managing the overall loan portfolio of GUVNL and its subsidiaries.

The Commission observed that the charges of Rs. 0.04/unit to handle power procurement and supply etc., as approved in MYT Order are reasonable and accordingly, approves the GUVNL cost as given below, based on energy handled during FY 2019-20 and FY 2020-21.



Table 5-43: GUVNL Costs approved by the Commission for the period FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | Unit | 2019-20 | F2020-21 |
|---------|-------------------------------|-----------|---------|----------|
| 1 | Energy handled | MUs | 99680 | 105652 |
| 2 | GUVNL Cost at 4.00 Paise/unit | Rs. Crore | 399 | 423 |

5.9.5.3 SLDC Fees and Charges

UGVCL has submitted that SLDC fees and charges have been taken as approved by the Commission in SLDC MYT Order dated 31st March, 2017.

The Commission approves the SLDC charges in Mid Term review order in respect to SLDC for FY 2019-20 and FY 2020-21 as given in Table below:

Table 5-44: SLDC charges approved by the Commission for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Sl. No. | Particulars | 2019-20 | 2020-21 |
|---------|--------------|---------|---------|
| 1 | SLDC Charges | 29 | 33 |

5.9.6 Total Power Purchase Cost

5.9.6.1 Fixed Cost

The total fixed cost consists of the fixed cost of the energy procured from various sources, transmission costs of PGCIL and GETCO, SLDC Charges & fees and Trading Costs approved by the Commission. These are aggregated to arrive at the total fixed cost of power purchase for all DISCOMs.

The fixed costs due to capacity contracted by GUVNL are passed on to DISCOMs as given in the Table below:

Table 5-45: Fixed cost of DISCOMs for the period FY 2019-20 and FY 2020-21

(Rs. Crore)

| Year | Fixed Cost | GETCO Cost | PGCIL Charges | SLDC Charges | Total Fixed Cost | DISCOMS Fixed Cost |
|---------|------------|------------|---------------|--------------|------------------|--------------------|
| 2019-20 | 11,900 | 4115 | 2077 | 29 | 18121 | 18121 |
| 2020-21 | 12,173 | 4502 | 2181 | 33 | 18888 | 18888 |



5.9.6.2 Variable Costs

The total variable cost consists of the variable cost of energy supplied to DISCOMs and GUVNL cost. The total variable cost and variable cost per unit are given in the Table below:

Table 5-46: Variable cost for DISCOMs and Trading Units for the period FY 2019-20 and FY 2020-21

| Year | Variable Cost (Rs. Crore) | GUVNL Cost (Rs. Crore) | Total Variable Cost (Rs. Crore) | Total MUs Despatched | Variable Cost (Rs. /Unit) |
|---------|---------------------------|------------------------|---------------------------------|----------------------|---------------------------|
| 2019-20 | 24572 | 399 | 24971 | 99680 | 2.51 |
| 2020-21 | 26105 | 423 | 26528 | 105652 | 2.51 |

Table 5-47: Total Cost of Power for DISCOMs for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Year | Total Fixed Cost | Total Variable Cost | Total Cost |
|---------|------------------|---------------------|------------|
| 2019-20 | 18121 | 24971 | 43092 |
| 2020-21 | 18888 | 26528 | 45416 |

5.10 Allocation of Power Purchase Cost

Power Purchase Cost worked out as above for FY 2019-20 and FY 2020-21 is allocated based on the methodology adopted by the Commission in the MYT Order dated 31st March, 2017 by working out revenue available for purchase of power, Non-Tariff Income, Agricultural Subsidy and Aggregate Revenue requirement other than power purchase as given in the following Tables:



Table 5-48: Category Wise sales approved and existing average tariff in Rs./kWh

| Sr. No. | Category | DGVCL | | | | MGVCL | | | | PGVCL | | | | UGVCL | | | |
|-----------|-----------------------|--------------|--------------|---------------------------------|---------------------------------|--------------|--------------|---------------------------------|---------------------------------|--------------|--------------|----------------------------------|----------------------------------|--------------|--------------|----------------------------------|----------------------------------|
| | | 2019-20 | 2020-21 | Average Tariff Rs./kWh 2019-20) | Average Tariff Rs./kWh 2020-21) | 2019-20 | 2020-21 | Average Tariff Rs./kWh 2019-20) | Average Tariff Rs./kWh 2020-21) | 2019-20 | 2020-21 | Average Tariff Rs./kWh (2019-20) | Average Tariff Rs./kWh (2020-21) | 2019-20 | 2020-21 | Average Tariff Rs./kWh (2019-20) | Average Tariff Rs./kWh (2020-21) |
| | | Sales (MUs) | Sales (MUs) | | | Sales (MUs) | Sales (MUs) | | | Sales (MUs) | Sales (MUs) | | | Sales (MUs) | Sales (MUs) | | |
| 1 | RGP | 3400 | 3690 | 3.88 | 3.89 | 2801 | 2979 | 3.73 | 3.74 | 3996 | 4205 | 3.64 | 3.65 | 2418 | 2594 | 3.56 | 3.57 |
| 2 | GLP | 68 | 77 | 4.13 | 4.12 | 66 | 70 | 4.23 | 4.23 | 136 | 146 | 4.10 | 4.10 | 51 | 54 | 4.33 | 4.32 |
| 3 | Non-RGP and LTMD | 5927 | 6,350 | 5.09 | 5.11 | 1,628 | 1716 | 5.42 | 5.44 | 3,744 | 3920 | 5.30 | 5.31 | 2,025 | 2,170 | 5.53 | 5.55 |
| 4 | Public Water Works | 268 | 295 | 3.66 | 3.66 | 363 | 409 | 3.38 | 3.38 | 876 | 945 | 3.44 | 3.43 | 816 | 877 | 3.62 | 3.62 |
| 5 | Agriculture Unmetered | 417 | 417 | 1.41 | 1.41 | 475 | 475 | 1.41 | 1.41 | 4570 | 4570 | 1.42 | 1.42 | 6313 | 6313 | 1.41 | 1.41 |
| 6 | Agriculture metered | 461 | 499 | 1.19 | 1.19 | 933 | 1023 | 0.96 | 0.96 | 3601 | 4060 | 1.09 | 1.08 | 3119 | 3301 | 0.89 | 0.89 |
| 7 | Street Light | 70 | 76 | 4.25 | 4.25 | 63 | 64 | 4.07 | 4.07 | 81 | 81 | 4.07 | 4.07 | 56 | 58 | 4.09 | 4.09 |
| 8 | Industrial HT | 8687 | 8901 | 5.40 | 5.45 | 4116 | 4339 | 5.35 | 5.39 | 12666 | 13932 | 5.11 | 5.15 | 8170 | 9218 | 5.08 | 5.06 |
| 9 | Railway Traction | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10 | Total | 19297 | 20304 | | | 10446 | 11076 | | | 29668 | 31859 | | | 22968 | 24584 | | |



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Table 5-49: Revenue with existing Tariffs for FY 2019-20 and FY 2020-21 with approved sales

(Rs. Crore)

| Sr. No. | DISCOM | DGVCL | | MGVCL | | PGVCL | | UGVCL | | TOTAL | |
|-----------|--|--------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 2019-20 | 2020-21 | 2019-20 | 2020-21 | 2019-20 | 2020-21 | 2019-20 | 2020-21 | 2019-20 | 2020-21 |
| 1 | RGP | 1318 | 1434 | 1044 | 1114 | 1456 | 1536 | 862 | 927 | 4680 | 5010 |
| 2 | GLP | 28 | 32 | 28 | 29 | 56 | 60 | 22 | 23 | 134 | 144 |
| 3 | Non-RGP and LTMD | 3019 | 3242 | 883 | 933 | 1983 | 2082 | 1119 | 1205 | 7003 | 7462 |
| 4 | Public Water Works | 98 | 108 | 123 | 138 | 301 | 325 | 296 | 318 | 817 | 889 |
| | Agriculture Unmetered | 59 | 59 | 67 | 67 | 649 | 649 | 889 | 889 | 1664 | 1664 |
| 5 | Agriculture Metered | 55 | 59 | 90 | 99 | 392 | 439 | 278 | 295 | 815 | 892 |
| 6 | Public Lighting | 30 | 32 | 26 | 26 | 33 | 33 | 23 | 24 | 111 | 115 |
| 7 | Industrial HT | 4690 | 4852 | 2202 | 2338 | 6477 | 7174 | 4152 | 4662 | 17521 | 19026 |
| 8 | Railway Traction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Total | 9296 | 9817 | 4462 | 4745 | 11346 | 12299 | 7641 | 8343 | 32745 | 35204 |
| | Approved Sales | | | | | | | | | | |
| 10 | FPPPA @ 1.61 Rs./kWh for FY 2019-20 and @ 1.58 Rs./kWh for FY 2020-21 | 3107 | 3208 | 1682 | 1750 | 4777 | 5034 | 3698 | 3884 | 13263 | 13876 |
| 11 | Other Income | 235 | 235 | 109 | 109 | 215 | 215 | 203 | 203 | 763 | 763 |
| 12 | Agriculture Subsidy | 49 | 49 | 78 | 80 | 452 | 460 | 522 | 512 | 1100 | 1100 |
| 13 | Grand Total | 12687 | 13309 | 6331 | 6684 | 16790 | 18008 | 12063 | 12942 | 47871 | 50943 |



Table 5-50: Aggregate Revenue Requirement for Power Purchase for FY 2019-20 and FY 2020-21

| | | (Rs. Crore) | |
|----------|--|--------------|--------------|
| Sr. No. | Particulars | 2019-20 | 2020-21 |
| A | Total Revenue of DISCOMS (A) | 47871 | 50943 |
| 1 | DGVCL | 12687 | 13309 |
| 2 | MGVCL | 6331 | 6684 |
| 3 | PGVCL | 16790 | 18008 |
| 4 | UGVCL | 12063 | 12942 |
| B | Expenditure Other than Power Purchase (B) | 5816 | 6296 |
| 5 | DGVCL | 991 | 1069 |
| 6 | MGVCL | 1001 | 1057 |
| 7 | PGVCL | 2609 | 2863 |
| 8 | UGVCL | 1214 | 1307 |
| C | Amount available with the DISCOM for Power Purchase (A-B) | 42055 | 44647 |
| 9 | DGVCL | 11695 | 12240 |
| 10 | MGVCL | 5330 | 5627 |
| 11 | PGVCL | 14180 | 15144 |
| 12 | UGVCL | 10849 | 11635 |

Table 5-51: Total Revenue Surplus/(Gap) for FY 2019-20 and FY 2020-21

(Rs. Crore)

| Sr. No. | Particulars | 2019-20 | 2020-21 |
|----------|---|---------------|--------------|
| 1 | Total Power Purchase Cost (A) (As per Table 5.47) | 43092 | 45416 |
| 2 | Aggregate Amount available for Power Purchase (B) (As per Table 5.50 C) | 42055 | 44647 |
| 3 | Surplus/(Gap)[B-A] | (1037) | (769) |

Table 5-52: Energy Requirement and Percentage Energy required for FY 2019-20 and FY 2020-21

| Sr. No. | DISCOM | 2019-20 | | 2020-21 | |
|---------|--------------|-----------------------|-------------|-----------------------|-------------|
| | | Energy Required (MUs) | Percentage | Energy Required (MUs) | Percentage |
| 1 | DGVCL | 22552 | 23% | 23688 | 22% |
| 2 | MGVCL | 12523 | 13% | 13256 | 13% |
| 3 | PGVCL | 37757 | 38% | 40028 | 38% |
| 4 | UGVCL | 26849 | 27% | 28680 | 27% |
| | Total | 99680 | 100% | 105652 | 100% |

Table 5-53: Allocation of Gap for FY 2019-20

| Sr. No. | Details | DGVCL | MGVCL | PGVCL | UGVCL |
|---------|----------------------------------|--------|-------|-------|-------|
| 1 | Total Gap for the year (Rs. Cr.) | (1037) | | | |
| 2 | Ratio of allocation of Gap | 23% | 13% | 38% | 27% |
| 3 | Gap allocation (Rs. Cr.) | (235) | (130) | (393) | (279) |



Table 5-54: Allocation of Gap for FY 2020-21

| Sr. No. | Details | DGVCL | MGVCL | PGVCL | UGVCL |
|---------|----------------------------------|-------|-------|-------|-------|
| 1 | Total Gap for the year (Rs. Cr.) | (769) | | | |
| 2 | Ratio of allocation of Gap | 22% | 13% | 38% | 27% |
| 3 | Gap allocation (Rs. Cr.) | (172) | (97) | (291) | (209) |

Table 5-55: Bulk Supply Tariff for FY 2019-20

| Sr. No. | Details | DGVCL | MGVCL | PGVCL | UGVCL |
|---------|--|-------------|-------------|-------------|-------------|
| 1 | Amount available for power purchase (Rs. Cr.) | 11695 | 5330 | 14180 | 10849 |
| 2 | Gap allocated (Rs. Cr.) | (235) | (130) | (393) | (279) |
| 3 | Power purchase cost for DISCOM (1-2) (Rs. Cr.) | 11930 | 5460 | 14573 | 11129 |
| 4 | Energy Purchase in DISCOM (MUs) | 22552 | 12523 | 37757 | 26849 |
| 5 | Bulk Supply Tariff (Rs./kWh) | 5.29 | 4.36 | 3.86 | 4.14 |

Table 5-56: Bulk Supply Tariff for FY 2020-21

| Sr. No. | Details | DGVCL | MGVCL | PGVCL | UGVCL |
|---------|--|-------------|-------------|-------------|-------------|
| 1 | Amount available for power purchase (Rs. Cr.) | 12240 | 5627 | 15144 | 11635 |
| 2 | Gap allocated (Rs. Cr.) | (172) | (97) | (291) | (209) |
| 3 | Power purchase cost for DISCOM (1-2) (Rs. Cr.) | 12413 | 5724 | 15436 | 11844 |
| 4 | Energy Purchase in DISCOM (MUs) | 23688 | 13256 | 40028 | 28680 |
| 5 | Bulk Supply Tariff (Rs./kWh) | 5.24 | 4.32 | 3.86 | 4.13 |

5.11 Capital Expenditure

Petitioner's submission

UGVCL has projected capital expenditure of Rs. 643.35 Crore for FY 2019-20 and Rs. 541.26 Crore for FY 2020-21 in Mid-Term Review against Rs. 541.81 Crore and Rs. 541.26 Crore approved in the MYT Order dated 31st March, 2017 as detailed in the Table below:



Table 5-57: Capital Expenditure loan in the Mid-Term Review for FY 2019-20 and FY 2020-21

| | | 2019-20 | | 2020-21 | |
|-------------|---|------------------------------------|---------------------|------------------------------------|---------------------|
| Particulars | | Approved as per MYT Order | Projected in MTR | Approved as per MYT Order | Projected in MTR |
| A | Distribution Schemes | | | | |
| | Normal Development Scheme | 177.00 | 208.14 | 180.00 | 180.00 |
| | System Improvement Scheme | 40.00 | 40.00 | 40.00 | 40.00 |
| | HVDS in selected Sub-division | 4.50 | 4.50 | 4.50 | 4.50 |
| | Under Ground Cables | 100.00 | 100.00 | 100.00 | 100.00 |
| | Plan Load Management Transformer | 4.00 | 4.00 | 4.00 | 4.00 |
| | Others (VDS) | 0.65 | 0.65 | 0.65 | 0.65 |
| | Total | 326.15 | 357.29 | 329.15 | 329.15 |
| B | Rural Electrification Schemes – Plan | | - | | - |
| | TASP(Wells & Petapara) | 20.00 | 20.00 | 20.00 | 20.00 |
| | Schedule Caste Sub Plan (Wells) | 4.00 | 4.00 | 3.00 | 3.00 |
| | Schedule Caste Sub Plan (lighting) | 2.50 | 2.50 | 2.50 | 2.50 |
| | Electrification of Hutments | 4.00 | 4.00 | 4.00 | 4.00 |
| | Kutir Jyoti Scheme | 0.45 | 0.45 | 0.40 | 0.40 |
| | Dark Zone | 100.00 | 140.00 | 100.00 | 100.00 |
| | Sagarkhedu | 4.50 | 4.50 | 4.00 | 4.00 |
| | Sardar Krushi Jyoti (SKJY) Scheme | - | 16.40 | - | - |
| | Solar home light | 15.00 | 15.00 | 15.00 | 15.00 |
| | Total | 150.45 | 206.85 | 148.90 | 148.90 |
| C | Central Government Scheme - Plan | | - | | - |
| | Din Dayal Upadhyay Gramin Jyoti Yojana (DDUGJY) | - | - | - | - |
| | RAPDRP Part A | 2.05 | 2.05 | 2.05 | 2.05 |
| | Integrated Power Development Scheme (IPDS) | - | - | - | - |
| | SCADA Part A | 0.21 | 0.21 | 0.21 | 0.21 |
| | Smart grid | 2.00 | 2.00 | 2.00 | 2.00 |
| | Total | 4.26 | 4.26 | 4.26 | 4.26 |
| D | Non Plan Schemes | | - | | - |
| | RE Non Plan (Tatkal) | 2.00 | 2.00 | 1.00 | 1.00 |
| | AG Normal (SPA) | 30.00 | 30.00 | 30.00 | 30.00 |
| | Energy Conservation | 0.10 | 0.10 | 0.10 | 0.10 |
| | Total | 32.10 | 32.10 | 31.10 | 31.10 |
| E | Other New Schemes | | - | | - |
| | Automation and computerisation | 4.35 | 4.35 | 4.35 | 4.35 |
| | Civil work New Building | 12.00 | 12.00 | 12.00 | 12.00 |
| | GIS in cities | 0.20 | 0.20 | 0.20 | 0.20 |
| | Other Schemes (earthing) | 0.80 | 0.80 | 0.80 | 0.80 |
| | Other Repairing work / Civil work | 2.00 | 2.00 | 2.00 | 2.00 |
| | New Furniture and Fixtures | 1.00 | 1.00 | 1.00 | 1.00 |
| | Vehicles | 0.50 | 0.50 | 0.50 | 0.50 |
| | DSM | 2.00 | 2.00 | 2.00 | 2.00 |
| | DISS | 5.00 | 15.00 | - | - |
| | Solar Pump | 5.00 | 5.00 | 5.00 | 5.00 |
| | Total | 32.85 | 42.85 | 27.85 | 27.85 |
| F | Capital Expenditure Total | 545.81 | 643.35 | 541.26 | 541.26 |

UGVCL has furnished the justification for revision in the capital expenditure as given below:

(A) Revised Capex : Looking to the present infrastructure growth among the peripheral area of Ahmedabad and Gandhinagar hence the revision of capex for the year 2019-20 is increased to Rs. 208.14 Crore from Rs. 177.00 Crore for FY 2019-20. Following is the revised Capex for the year FY 2019-20:

| Particular | | 2019-20 (Revision) in Rs. Crore |
|------------|---------------------------------|---------------------------------|
| A | Distribution schemes | |
| | Normal Development scheme | 208.14 |
| | Sardarkrushijyoti (SKJY) scheme | 16.40 |
| | DISS Scheme | 15.00 |
| | Dark Zone | 140.00 |

(B) Distribution Schemes:

- (a) SardarkrushijyotiYojana** - in this scheme capex is added for Rs. 16.40 Crore for FY 2019-20. This scheme includes the works like such as replacement of deteriorated conductor and other maintenance works
- (b) Diss** – in Diss work, the budget is increased Rs. 15 Crore against approved budget of Rs. 5 Crore for the FY 2019-20 as per revision in targets.

(C) Rural Electrification Schemes:

The Scheme Wise Details for the projected capital expenditure for the MYT petition under control period from FY 2019-20to FY 2020-21 is as follows:

- **RE and non-plan Scheme:** It is to state that Release of Agriculture Connection is a Continuous process and it is governed by Government of Gujarat by monitoring the Fund, availability of Energy and Infrastructure. Under the head RE Schemes, the Company releases Agriculture category connections under various schemes. There are 18078 Nos. of registered pending application for Agriculture connections and also there are 18000 application per year registered for Agriculture connections. Looking the flow of application, UGVCL has to carry out the work for releasing agriculture connection about 15000-20000 Nos. of wells per year. As the network has been extended year by year, hence average cost per Ag. Wells has been decreased for each well. Hence UGVCL has



projected Rs. 124.00 Crores, Rs. 123.00 Crores for the FY 2019-20 and FY 2020-21 respectively.

Commission's Approval

The Commission accepts the justification given by UGVCL for the projected capital expenditure in the Mid-Term Review for FY 2019-20 and FY 2020-21 and approves the capital expenditure of Rs. 643.35 Crore and Rs. 541.26 Crore for these years respectively. The Commission has approved the scheme wise CAPEX as proposed by the Petitioner for FY 2019-20 and FY 2020-21. While truing up, Petitioner is required to submit the details of scheme wise CAPEX including target and actual date of commissioning. The Commission shall allow such CAPEX after prudence check in respect to cost incurred, time taken to complete the project and cost benefit analysis. The Petitioner shall also justify the competitiveness of the cost incurred.

Capitalization and Funding

Petitioner's Submission

UGVCL has submitted that it is expecting that all the capital expenditure incurred during the year will be capitalised in the same year as per the past trends. The funding of Capital Expenditure is envisaged through various sources categorised under four headings namely: Consumer Contribution, Grants, Equity and Debt. UGVCL has submitted that Consumer Contribution is the major source of funding the Normal Distribution Schemes while Grant is received from State Government for funding various governmental schemes like DDUGY, IPDS and others. The balance is proposed to be funded through debt and equity in the ratio of 70:30. The detailed breakup of approved and projected funding of capitalisation for FY 2019-20 to 2020-21 is given in the Table below.

Table 5-58: Funding of Capitalisation projected in Mid-Term Review

| Sr. No. | Particulars | 2019-20 | | 2020-21 | |
|---------|------------------------------|-----------------------|------------------|-----------------------|------------------|
| | | Approved in MYT Order | Projected in MTR | Approved in MYT Order | Projected in MTR |
| 1 | Capitalisation | 545.81 | 643.35 | 541.26 | 541.26 |
| 2 | Less : Consumer Contribution | 72.65 | 72.65 | 73.20 | 73.20 |
| 3 | Grants | 129.95 | 129.95 | 122.90 | 122.90 |
| 4 | Balance CAPEX | 343.21 | 440.75 | 345.16 | 345.16 |
| 5 | Debt @ 70% | 240.25 | 308.53 | 241.61 | 241.61 |
| 6 | Equity @ 30% | 102.96 | 132.23 | 103.55 | 103.55 |

Commission's Analysis

The Commission has observed that UGVCL has proposed capitalization of the entire capital expenditure proposed to be incurred during FY 2019-20 and FY 2020-21. The Commission has verified the actual capitalization against capital expenditure incurred during the first two financial years of the control period of the MYT and has observed that the Petitioner has achieved more than 90% capitalization during FY 2016-17 and more than 100% capitalization during FY 2017-18 as can be seen from the table below

Table 5-59: Approved CAPEX vs Actual CAPEX & Actual Capitalization for FY 2016-17 and FY 2017-18

(Rs. in Crore)

| Particulars | 2016-17 | 2017-18 |
|-----------------------------|---------|---------|
| Approved CAPEX in MYT Order | 813.66 | 784.43 |
| Actual CAPEX | 517.82 | 629.31 |
| Capitalization | 474.83 | 672.04 |

In view of the above, the Commission approves the capitalization and funding thereof proposed by UGVCL as given in the table below:

Table 5-60: Approved CAPEX, Capitalization and Funding for the FY 2019-20 and FY 2020-21

(Rs. Crore)

| Particulars | 2019-20 | 2020-21 |
|-------------------------------|---------------|---------------|
| CAPEX | 643.35 | 541.26 |
| Capitalization | 643.35 | 541.26 |
| Less: Consumer contribution | 72.65 | 73.20 |
| Less: Grants | 129.95 | 122.90 |
| Balance Capitalisation | 440.75 | 345.16 |
| Debt @ 70% | 308.53 | 241.61 |
| Equity @ 30% | 132.23 | 103.55 |

5.12 Fixed Charges

5.12.1 Operations and Maintenance (O&M) Expenses

UGVCL has projected the O&M expenses at Rs. 840.71 Crore for FY 2019-20 and Rs.942.07 Crore for FY 2020-21 in the Mid-Term Review petition. The O&M expenses approved for these years in the MYT Order dated 31st March 2017 and the revised projection submitted by UGVCL are given in the Table below:



Table 5-61: O&M expenses projected for the FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | | | |
|----------|---|-----------------|------------------|-----------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | Employee Cost | 473.43 | 734.53 | 500.51 | 829.82 |
| 2 | Repair & Maintenance | 98.91 | 98.91 | 104.57 | 104.57 |
| 3 | Administration & General Charges | 84.60 | 84.60 | 89.44 | 89.44 |
| 4 | Other Debits | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | Extraordinary Items | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | Net Prior Period Expenses / (Income) | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | Other Expenses Capitalised | (161.75) | (77.33) | (171.00) | (81.76) |
| 8 | Operation & Maintenance Expenses | 495.19 | 840.71 | 523.51 | 942.07 |

Petitioner's Submission

UGVCL has submitted that the O&M Expenses consist of Employee Cost, Administration & General Expenses, Repairs and Maintenance Expenses, Other Debits, Extraordinary Items, and Net Prior Period Income/Expenses.

Regulation 94.8 of GERC MYT Regulations, 2016 states the following methodology for projection of O&M Expenses:

“Operation and Maintenance expenses:

The Operation and Maintenance expenses shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.

The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21.”

The increase in O&M expenses is on two counts (i) inflationary increase and (ii) increase in the scale of distribution network operation due to increase in network length, load handling capacity and number of consumers being served, etc. as compared to base years. The escalation factor of 5.72% per annum takes care of only the change in O&M expenses on account of inflationary increase. However, it is not addressing the issue of escalation in O&M expenses due to increased scale of distribution operations which is beyond the control of the distribution licensee.

The growth in the Employee expenses at 3-year CAGR for the period from FY 2014-15 to FY 2017-18 excluding the impact of 7th Pay Commission is shown in the following Table:

Table 5-62: Consolidated Employee Cost of all DISCOMs

| 2014-15 | 2015-16 | 2016-17 | 2017-18 | 3 Year CAGR |
|-----------|---------|---------|---------|-------------|
| Rs. Crore | | | | |
| 1531.19 | 1699.62 | 1945.96 | 2175.23 | 12.42% |

UGVCL submitted that considering the above, the actual Employee expenses of FY 2017-18 excluding the impact of 7th Pay Commission is escalated at 12.42% for FY 2019-20 and FY 2020-21. Further, the actual impact of 7th Pay Commission in FY 2017-18 was there only for the part of the year and that too for only a part of the employees and is therefore expected to be substantially higher in subsequent years when the impact is considered for full year for all employees. Considering this, the impact of 7th Pay Commission is considered at 20% of salary component for FY 2019-20 and FY 2020-21.

UGVCL submitted that the A&G and R&M expenses for FY 2019-20 and FY 2020-21 are computed as per the GERC (MYT) Regulations, 2016 according to which the Operation and Maintenance expenses shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending 31st March, 2015. The average of such Operation and Maintenance expenses shall be considered as Operation and Maintenance expenses for the financial year ended 31st March, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at Operation and Maintenance expenses for subsequent years up to FY 2020-21. Accordingly, the A&G and R&M expenses for FY 2019-20 and FY 2020-21 have been computed.

The expenses capitalised for FY 2017-18 have been escalated at 5.72% to derive the expenses capitalised for FY 2019-20 and FY 2020-21.

Other Debits, Extraordinary Items and Net Prior Period Expense/ (Income) are not considered for projection.

Commission's Analysis

The Commission examined the O&M expenses incurred by UGVCL during FY 2017-18 component wise. The GERC (MYT) Regulations, 2016 provides for escalation of O&M Expenses viz, Employee Cost, Repairs and Maintenance Expenses,



Administration and General Expenses and Expenses Capitalized @ 5.72% p.a. for FY 2017-18 onwards.

The Commission, accordingly, approves the R&M Expenses, A&G Expenses and Expenses Capitalised with 5.72% escalation p.a for FY 2019-20 and FY 2020-21 over the actuals incurred under these heads during FY 2017-18 as trued up in this Order. The Other Debits are not projected by the Petitioner and therefore, not considered by the Commission in this Order.

The Commission noted that there is a revision in the Pay Scale of employees of the Petitioner on account of 7th Pay Commission. It is also noted by the Commission that only a part of the employees availed the revised salary and that too for a part of the year during FY 2017-18. On a query from the Commission, the Petitioner vide e-mail dated 27.02.2019 confirmed that during FY 2017-18, all non-technical employees and Class III and IV technical employees opted the revised salary and Class I and II technical employees did not opt the revised salary. It is clarified by the Petitioner that the revised salary was paid from 1st August, 2017. It is also clarified that no arrears was paid to the employees during FY 2017-18 on account of revision of salary.

In view of above, the Commission has considered eight months actual paid out amount due to revision in salary annualised for twelve months plus the pre-revised annual salary for FY 2017-18 to escalate @ 5.72% Y-o-Y to arrive at employee expenses for FY 2019-20 and FY 2020-21. The Commission shall consider actual employee expenses as uncontrollable to the extent of actual payout on account of revision in salaries and allowances while truing up of FY 2019-20 and FY 2020-21.

Accordingly, the approved O&M expenses are given in the Table below:

Table 5-63: O&M expenses approved in the Mid-Term Review

| (Rs. Crore) | | | |
|-------------|--|---------------|---------------|
| Sr. No. | Particulars | 2019-20 | 2020-21 |
| 1 | Employee Cost | 608.92 | 643.75 |
| 2 | Repairs & Maintenance Expenses | 68.58 | 72.50 |
| 3 | Administration & General Expenses | 110.90 | 117.24 |
| 4 | Other Debits | 0.00 | 0.00 |
| 5 | Extraordinary Items | 0.00 | 0.00 |
| 6 | Net Prior Period Expenses / (Income) | 0.00 | 0.00 |
| 7 | Other Expenses Capitalised | (77.33) | (81.76) |
| 8 | Operations & Maintenance Expenses | 711.06 | 751.74 |

5.12.2 Depreciation

UGVCL has projected Depreciation at Rs.248.47 Crore for FY 2019-20 and Rs. 273.65 Crore for FY 2020-21 based on the revised capital expenditure projected in the Mid-Term Review for these years. The depreciation approved for these years in the MYT order dated 31st March, 2017 and revised projections submitted by UGVCL are given in the Table below:

Table 5-64: Depreciation projected for the Control Period FY 2019-20 to FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | | | |
|---------|--------------------------------------|-----------------|------------------|-----------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | Gross Block in Beginning of the year | 7419.87 | 5511.90 | 7965.68 | 6155.25 |
| 2 | Additions during the Year (Net) | 545.81 | 643.35 | 541.26 | 541.26 |
| 3 | Depreciation for the Year | 399.19 | 248.47 | 427.81 | 273.65 |
| 4 | Average Rate of Depreciation | 5.19% | 4.26% | 5.19% | 4.26% |

Petitioner's Submission

UGVCL has considered the Closing Gross Block of fixed assets of FY 2017-18 as the Opening Gross Block of fixed assets of FY 2018-19. The addition during 2018-19 to 2020-21 has been projected considering projected capitalisation for the same for each year. Depreciation has been calculated taking into consideration the Opening Balance of assets at the beginning of the year and the projected capitalisation. The depreciation for assets which have completed 12 years from the Transfer Scheme of the State Government effective from 1st April 2005, has been computed considering the balance depreciation (difference of GFA as on 1st April, 2017 less accumulated depreciation) spread equally over the remaining useful life of these assets (23 years considering useful life of 35 years). This methodology is in line with the GERC (MYT) Regulations, 2016 and the directives of the Commission. The depreciation for the other assets has also been computed in accordance with the rates specified in the GERC (MYT) Regulations, 2016.

Commission's Analysis

The Commission has observed that the Petitioner has computed the depreciation based on the proviso to Regulation 39(b) of the GERC(MYT), Regulations, 2016. Accordingly, the Commission has approved the Depreciation as given in the Table below:



Table 5-65: Depreciation approved in the Mid-Term Review

| (Rs. Crore) | | | | |
|-------------|--------------------------------------|---------|---------------|---------------|
| Sr. No. | Particulars | 2018-19 | 2019-20 | 2020-21 |
| 1 | Gross Block at Beginning of the year | 6352.54 | 6968.65 | 7612.00 |
| 2 | Additions during the Year (Net) | 616.11 | 643.35 | 541.26 |
| 3 | Closing GFA | 6968.65 | 7612.00 | 8153.26 |
| 4 | Avg. GFA | | 7290.33 | 7882.63 |
| 5 | Avg. Rate of Depreciation | | 3.41% | 3.47% |
| 6 | Depreciation For the year | | 248.47 | 273.65 |

The Commission approves the Depreciation at Rs. 248.47 Crore for FY 2019-20 and Rs. 273.65 Crore for FY 2020-21 in the Mid-Term Review.

5.12.3 Interest and Finance Charges

UGVCL has projected the interest and finance charges including interest on security deposit from consumers and guarantee charges at Rs. 189.21 Crore for FY 2019-20 and Rs. 201.94 Crore for FY 2020-21 in the Mid-Term Review petition. The interest charges approved for these years in the MYT Order dated 31st March, 2017 and the revised projections submitted in the Mid-Term Review are given in the Table below:

Table 5-66: Interest and Guarantee Charges projected in the Mid-Term Review

| (Rs. Crore) | | | | | |
|-------------|---|-----------------|------------------|-----------------|------------------|
| Sr. No. | Particulars | 2019-20 | | 2020-21 | |
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | Opening Loans | 452.67 | 699.05 | 293.72 | 759.11 |
| 2 | Additions during the Year | 240.25 | 308.53 | 241.61 | 241.61 |
| 3 | Repayments during the Year | 399.19 | 248.47 | 427.81 | 273.65 |
| 4 | Closing Loans | 293.72 | 759.11 | 107.53 | 727.07 |
| 5 | Average Loans | 373.19 | 729.08 | 200.63 | 743.09 |
| 6 | Weighted Average Rate of Interest | 0.07 | 0.11 | 0.07 | 0.11 |
| 7 | Interest on Loan | 27.13 | 76.63 | 14.59 | 78.10 |
| 8 | Interest on Security Deposit | 112.93 | 112.58 | 124.22 | 123.84 |
| 9 | Guarantee Charges | 0.83 | 0.00 | 0.83 | 0.00 |
| 10 | Total Interest & Financial Charges | 140.89 | 189.21 | 139.64 | 201.94 |

Petitioner's submission

UGVCL has submitted that it has considered the Closing Balance of loans for FY 2017-18 as the Opening Balance of FY 2018-19. The normative loan addition in FY 2018-19 to FY 2020-21 is computed as per the Capex funding plan. Repayment of loan is considered equivalent to depreciation and the rate of interest has been taken as the



weighted average rate of interest on the actual loan portfolio being 10.51%. The interest on security deposit has been considered at 7.75% prevailing RBI bank rate as approved by the Commission in the MYT Order dated 31st March, 2017. Security Deposit is projected based on year on year growth rate of 10% over the actuals for FY 2017-18 for the remaining control period. Other finance charges comprising guarantee and bank charges are proposed same as actuals of FY 2017-18.

Commission's Analysis

The Opening Balance of loans for FY 2018-19 is taken as per actual normative Closing Balance for FY 2017-18. The Commission has approved the capitalisation and funding of capital expenditure in Table 5-60 above. The Commission has considered the weighted average rate of interest of 9.96% based on the actual loan portfolio submitted by UGVCL vide e-mail dated 19.01.2019 for FY 2017-18, as per the GERC (MYT) Regulations, 2016.

In respect of Interest on Security Deposit, UGVCL has proposed the bank rate of 7.75%. However, the RBI bank rate was 6.25% as on 07.02.2019 and the Commission has applied this rate on the average balance of security deposit to arrive at the interest on security deposit. The growth in deposit is considered at 10.00% p.a. as proposed by UGVCL. The repayment of loan is considered equivalent to depreciation approved in Table 5-65 above accordance with the GERC (MYT) Regulations, 2016. The guarantee and other bank charges are considered at the level of actuals for FY 2017-18. Considering all the above, the Commission has computed the interest and finance charges in the Mid-Term Review as detailed in the Table below:

Table 5-67: Approved Interest and Finance Charges in the Mid-Term Review

| Sr. No. | Particulars | (Rs. Crore) | | |
|-----------|---|-------------|---------------|---------------|
| | | 2018-19 | 2019-20 | 2020-21 |
| 1 | Opening Loans | 662.63 | 699.05 | 759.11 |
| 2 | Additions during the year | 257.22 | 308.53 | 241.61 |
| 3 | Repayments during the year | 220.80 | 248.47 | 273.65 |
| 4 | Closing Loans | 699.05 | 759.11 | 727.07 |
| 5 | Average Loans | 680.84 | 729.08 | 743.09 |
| 6 | Rate of Interest | 9.96% | 9.96% | 9.96% |
| 7 | Interest Charges | 67.83 | 72.64 | 74.03 |
| 8 | Opening Security Deposit | 1257.76 | 1383.54 | 1521.89 |
| 9 | Additions during the year | 125.78 | 138.35 | 152.19 |
| 10 | Closing Security Deposit | 1383.54 | 1521.89 | 1674.08 |
| 11 | Average Security Deposit | 1320.65 | 1452.72 | 1597.99 |
| 12 | Rate of Interest on Security Deposit | | 6.25% | 6.25% |
| 13 | Interest on Security Deposit | | 90.79 | 99.87 |
| 14 | Guarantee Charges | | 0.00 | 0.00 |
| 15 | Interest and Finance Charges (7+13+14) | | 163.43 | 173.91 |

The Commission approves the Interest and Finance charges at Rs. 163.43 Crore for FY 2019-20 and Rs. 173.91 Crore for FY 2020-21 in the Mid-Term Review.

5.12.4 Interest on Working Capital

UGVCL has not claimed any interest on working capital as detailed in the Table below:

**Table 5-68: Interest on Working Capital projected in the Mid-Term Review
(Rs. Crore)**

| Sr. No. | Particulars | 2019-20 | | 2020-21 | |
|---------|---|-----------------|------------------|-----------------|------------------|
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | O & M Expenses | 41.27 | 70.06 | 43.63 | 78.51 |
| 2 | Maintenance Spares | 74.20 | 55.12 | 79.66 | 61.55 |
| 3 | Receivables | 885.95 | 1009.12 | 923.15 | 1078.50 |
| 4 | Less : Amount held as Security Deposit from Consumers | 1457.18 | 1452.71 | 1602.90 | 1597.98 |
| 5 | Total Working Capital | (455.77) | (318.41) | (556.47) | (379.42) |
| 6 | Rate of Interest on Working Capital | 11.70% | 10.65% | 11.70% | 10.65% |
| 7 | Interest on Working Capital | - | - | - | - |

UGVCL has not claimed Interest on Working Capital as the Security Deposit available is higher than the allowable normative Working Capital.

Commission's Analysis

The Commission has examined the computation of Interest on Working Capital submitted by DGVCL. Based on the approved O & M Expenses, GFA, Total Revenue and Average Security Deposit the Commission has computed the Working Capital and Interest on Working Capital, as detailed in the Table below;

**Table 5-69: Interest on Working Capital approved in the Mid-Term Review
(Rs. Crore)**

| Sr. No. | Particulars | 2019-20 | | 2020-21 | |
|---------|---|-----------------|-----------------|-----------------|-----------------|
| | | Approved in MYT | Approved in MTR | Approved in MYT | Approved in MTR |
| 1 | O & M Expenses | 41.27 | 59.26 | 43.63 | 62.64 |
| 2 | Maintenance Spares | 74.20 | 69.69 | 79.66 | 76.12 |
| 3 | Receivables | 885.95 | 1005.29 | 923.15 | 1078.50 |
| 4 | Less : Amount held as Security Deposit from Consumers | 1457.18 | 1452.72 | 1602.90 | 1597.98 |
| 5 | Total Working Capital | (455.77) | (318.48) | (556.47) | (380.72) |
| 6 | Rate of Interest on Working Capital | 11.70% | 10.65% | 11.70% | 10.65% |
| 7 | Interest on Working Capital | - | - | - | - |



5.12.5 Provision for Bad and Doubtful Debts

UGVCL has considered the provision for bad and doubtful debts at Rs. 0.31 Crore for FY 2019-20 and Rs. 0.31 Crore for FY 2020-21 in the Mid-Term Review petition. The provision approved for these years in the MYT order dated 31st March 2017, and the revised provision submitted in the Mid-Term Review are given in the Table below:

Table 5-70: Provision for Bad and Doubtful debts projected for the FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | | | |
|---------|-------------------------|-----------------|------------------|-----------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | Provision for Bad Debts | 0.70 | 0.31 | 0.70 | 0.31 |

Petitioner's Submission

UGVCL has submitted that it has considered the provision for bad & doubtful debts for the remaining control period FY 2019-20 and FY 2020- as actuals of FY 2017-18. UGVCL has further submitted that it is a very legitimate expenditure which is associated with the business risk and is a consumer related expense as UGVCL is in a distribution business.

Commission's Analysis

Regulations 94.9 of the GERC (MYT) Regulations, 2016, specifies that the Commission may allow bad debts written off as a pass through, in the ARR. The allowable actual bad debts written off were Rs. 0.31 Crore as per audited annual accounts for FY 2017-18.

The Commission approves the bad and doubtful debts written off at the level of actual bad debts written off FY 2017-18 for FY 2019-20 and FY 2020-21 in the Mid-Term Review. However, actual bad debts written off shall be allowed by the Commission after prudence check at the time of truing up for FY 2019-20 and FY 2020-21.

The approved bad and doubtful debts written off in the Mid-Term Review is given in the Table below:

Table 5-71: Bad and Doubtful Debts Written-off approved in the Mid-term Review

| Sl. No. | Particulars | (Rs. Crore) | |
|---------|------------------------------------|-------------|---------|
| | | 2019-20 | 2020-21 |
| 1 | Bad and Doubtful Debts Written off | 0.31 | 0.31 |

5.12.6 Return on Equity

UGVCL has projected the Return on Equity at Rs. 215.36 Crore for FY 2019-20 and Rs. 231.86 Crore for FY 2020-21 @14% in the Mid-Term Review petition. The Return on Equity approved for these years in the MYT Order dated 31st March, 2017 and the revised projection submitted in the Mid-Term Review are given in the Table below:

Table 5-72: Return on Equity projected for the Mid-Term Review

| Sr. No. | Particulars | 2019-20 | | 2020-21 | |
|---------|----------------------------------|-----------------|------------------|-----------------|------------------|
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR |
| 1 | Opening Equity | 1466.47 | 1472.17 | 1569.43 | 1604.40 |
| 2 | Equity Additions during the Year | 102.96 | 132.23 | 103.55 | 103.55 |
| 3 | Closing Equity | 1569.43 | 1604.40 | 1672.98 | 1707.94 |
| 4 | Average Equity | 1517.95 | 1538.28 | 1621.21 | 1656.17 |
| 5 | Rate of Return on the Equity | 14.00% | 14.00% | 14.00% | 14.00% |
| 6 | Return on Equity | 212.51 | 215.36 | 226.97 | 231.86 |

Petitioner's Submission

UGVCL has submitted that Return on Equity has been computed @ 14% on average Equity based on the Opening Balance of Equity and normative additions during the year, which has been arrived at by considering 30% of the capitalization net of consumer contribution and grants as funded from Equity.

Commission's Analysis

The Commission has computed Return on Equity @14% on the average Equity of Opening and Closing Balance with additions during the year approved in Table 5-60 above as given in the Table below:

Table 5-73: Approved Return on Equity for the Mid-Term Review

| Sr. No. | Particulars | 2018-19 | | | 2019-20 | | | 2020-21 | | |
|---------|---------------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|--|
| | | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR | Approved in MYT | Projected in MTR | |
| 1 | Opening Equity | 1361.93 | 1472.17 | 1361.93 | 1472.17 | 1361.93 | 1472.17 | 1361.93 | 1472.17 | |
| 2 | Additions during the year | 110.24 | 132.23 | 110.24 | 132.23 | 110.24 | 132.23 | 110.24 | 132.23 | |
| 3 | Closing Equity | 1472.17 | 1604.40 | 1472.17 | 1604.40 | 1472.17 | 1604.40 | 1472.17 | 1604.40 | |
| 4 | Average Equity | | 1538.28 | | 1538.28 | | 1538.28 | | 1538.28 | |
| 5 | Rate of Return on Equity | | 14% | | 14% | | 14% | | 14% | |
| 6 | Return on Equity | | 215.36 | | 215.36 | | 215.36 | | 231.86 | |

The Commission approves Return on Equity at Rs. 215.36 Crore for FY 2019-20 and Rs. 231.86 Crore for FY 2020-21 in the Mid-Term Review.

5.12.7 Income Tax

UGVCL has considered Income Tax at Rs. 14.38 Crore for FY 2019-20 and FY 2020-21 in the Mid-Term Review against Rs. 17.14 Crore for each year approved in the MYT Order dated 31st March 2017 as detailed in the Table below:

Table 5-74: Income Tax projected in the Mid-Term Review

| Sr. No. | Particulars | (Rs. Crore) | | | |
|---------|-------------|-----------------------|------------------|-----------------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in MYT Order | Projected in MTR | Approved in MYT Order | Projected in MTR |
| 1 | Income Tax | 17.14 | 14.38 | 17.14 | 14.38 |

Petitioner's Submission

UGVCL has submitted it has considered Income Tax as per the actual Income Tax paid in FY 2017-18 as per the audited accounts.

Commission's Analysis

Regulation 41.1 of the GERC (MYT) Regulations, 2016, specifies that the Commission in the MYT Order shall provisionally approve income tax payable for each year of the control period, if any, based on the actual income tax paid as per the latest audited accounts available for the applicant, subject to prudence check. The latest audited accounts available for UGVCL is for FY 2017-18 and the Income Tax for FY 2017-18 is Rs. 14.38 Crore.

The Commission accordingly approves the Income Tax as per actual Income Tax paid for FY 2017-18 in the Mid-Term Review for these years as given in the Table below:

Table 5-75: Income Tax approved in the Mid-Term Review

| Sr. No. | Particulars | (Rs. Crore) | |
|---------|-------------|-------------|---------|
| | | 2019-20 | 2020-21 |
| 1 | Income Tax | 14.38 | 14.38 |

5.12.8 Non-Tariff Income

UGVCL has projected the Non-Tariff Income at Rs. 138.68 Crore for. FY 2019-20 and FY 2020-21 in the Mid-Term Review against Rs. 146.76 Crore approved for these years in the MYT Order dated 31st March, 2017 as detailed in the Table below:

Table 5-76: Non-Tariff Income projected in the Mid-Term Review

| Sr. No. | Particulars | (Rs. Crore) | | | |
|---------|-------------------|-----------------------|------------------|-----------------------|------------------|
| | | 2019-20 | | 2020-21 | |
| | | Approved in MYT Order | Projected in MTR | Approved in MYT Order | Projected in MTR |
| 1 | Non-Tariff Income | 146.76 | 138.68 | 146.76 | 138.68 |

Petitioner's Submission

UGVCL has submitted that it has considered Non-Tariff Income for the remaining control period for FY 2019-20 and FY 2020-21 under respective heads (excluding Delayed Payment Charges as per Regulation 97.2 of the GERC (MYT) Regulations, 2016) same as the actual figures of FY 2017-18.

Commission's Analysis

The Commission has approved the actual Non-Tariff Income of Rs. 138.68 Crore at Table 4-52 of this Order in the True up of FY 2017-18 which excludes the Delayed Payment Charges. Accordingly, the Commission approves Non-Tariff Income in the Mid-Term Review as given in the Table below:

Table 5-77: Non-Tariff income approved for FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | |
|---------|-------------------|-------------|---------|
| | | 2019-20 | 2020-21 |
| 1 | Non-Tariff Income | 138.68 | 138.68 |

5.13 Aggregate revenue Requirement (ARR)

As discussed in the above paragraphs, the approved revised Annual Revenue Requirement for FY 2019-20 and FY 2020-21 is summarised as given in the Table below:

Table 5-78: Aggregate Revenue Requirement for the FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | (Rs. Crore) | |
|---------|--------------------------------------|------------------------------|----------|
| | | Approved for Mid-Term Review | |
| | | 2019-20 | 2020-21 |
| 1 | Cost of Power Purchase | 11128.50 | 11843.65 |
| 2 | Operations & Maintenance Expenses | 711.06 | 751.74 |
| 2.1 | Employee Cost | 608.92 | 643.75 |
| 2.2 | Repairs & Maintenance Expenses | 68.58 | 72.50 |
| 2.3 | Administration & General Expenses | 110.90 | 117.24 |
| 2.4 | Other Debits | 0.00 | 0.00 |
| 2.5 | Extraordinary Items | 0.00 | 0.00 |
| 2.6 | Net Prior Period Expenses / (Income) | 0.00 | 0.00 |
| 2.7 | Other Expenses Capitalised | (77.33) | (81.76) |
| 3 | Depreciation | 248.47 | 273.65 |
| 4 | Interest & Finance Charges | 163.43 | 173.91 |



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| Sr. No. | Particulars | Approved for Mid-Term Review | |
|---------|--|------------------------------|-----------------|
| | | 2019-20 | 2020-21 |
| 5 | Interest on Working Capital | 0.00 | 0.00 |
| 6 | Bad Debts Written off | 0.31 | 0.31 |
| 7 | Sub-Total [1 to 6] | 12251.77 | 13043.26 |
| 8 | Return on Equity | 215.36 | 231.86 |
| 9 | Provision for Tax / Tax Paid | 14.38 | 14.38 |
| 10 | Total Expenditure (7 to 9) | 12481.51 | 13289.50 |
| 11 | Less: Non-Tariff Income | 138.68 | 138.68 |
| 12 | Aggregate Revenue Requirement (10 - 11) | 12342.83 | 13150.82 |

The Commission approves the revised ARR at Rs. 12342.83 Crore for FY 2019-20 and Rs. 13150.82 Crore for FY 2020-21 in the Mid-Term Review.



6 ARR and (Gap) for FY 2019-20

6.1 Revenue from existing Tariff

The UGVCL has estimated the category-wise revenue based on existing tariff at Rs. 4461.60 Crore in respect of category-wise sale projected in term of MUs for FY 2019-20, as detailed in the Table below:

Table 6-1: Sales (MUs) and Revenue (Cr.) from existing tariff projected for FY 2019-20

| Sr. No. | Particulars | Units | Amount in Rs. Crore |
|----------|----------------------------|-----------------|---------------------|
| A | LT Consumers | | |
| 1 | RGP | 2418.12 | 861.90 |
| 2 | GLP | 50.79 | 21.98 |
| 3 | Non-RGP & LTMD | 2024.59 | 1118.68 |
| 4 | Public Water Works | 816.42 | 295.87 |
| 5 | Agriculture-Metered | 3118.88 | 278.44 |
| 6 | Agriculture-Unmetered | 6312.65 | 889.25 |
| 7 | Street Light | 56.19 | 22.98 |
| | LT Total (A) | 14797.64 | 3489.10 |
| B | HT Consumers | | |
| 1 | Industrial HT | 8169.94 | 4151.68 |
| 2 | Railway Traction | 0.00 | 0.00 |
| | HT Total (B) | 8169.94 | 4151.68 |
| | Grand Total (A + B) | 22967.58 | 7640.78 |

Petitioner's submission

UGVCL submitted that it has considered sale of 22967.58 MUs to different categories of consumers as per MTR petition as shown in the Table above and the existing retail tariff to work out the revenue from sale of power at Rs. 7640.78 Crore for FY 2019-20.

Commission's Analysis

The Commission observed UGVCL has considered the category-wise sales for FY 2019-20, as approved in Table 5.19 of this Order. Taking into consideration the same and the existing tariff for each category, the Commission has computed the revenue from sale of power for FY 2019-20 as detailed in the Table below:

Table 6-2: Approved Sales (MUs) and Revenue from existing tariff for FY 2019-20

| Sr. No. | Particulars | Units | Amount in Rs. Crore |
|----------|---------------------|---------|---------------------|
| A | LT Consumers | | |
| 1 | RGP | 2418.12 | 861.90 |
| 2 | GLP | 50.79 | 21.98 |
| 3 | Non-RGP & LTMD | 2024.59 | 1118.68 |
| 4 | Public Water Works | 816.42 | 295.87 |



| Sr. No. | Particulars | Units | Amount in Rs. Crore |
|---------|----------------------------|-----------------|---------------------|
| 5 | Agriculture-Metered | 3118.88 | 278.44 |
| 6 | Agriculture-Unmetered | 6312.65 | 889.25 |
| 7 | Street Light | 56.19 | 22.98 |
| | LT Total (A) | 14797.64 | 3489.10 |
| B | HT Consumers | | |
| 1 | Industrial HT | 8169.94 | 4151.68 |
| 2 | Railway Traction | 0.00 | 0.00 |
| | HT Total (B) | 8169.94 | 4151.68 |
| | Grand Total (A + B) | 22967.58 | 7640.78 |

6.2 Revenue from FPPPA charges

UGVCL has estimated revenue from FPPPA charges for FY 2019-20, as detailed in the Table below:

Table 6-3: Projected Revenue from FPPPA Charges for the FY 2018-19

| (Rs. Crore) | |
|----------------------------|----------|
| Particulars | Amount |
| Rate of FPPPA (Rs./kWh) | 1.63 |
| Sales (MUs) | 22967.58 |
| FPPPA charges in Rs. Crore | 3743.72 |

Petitioner's submission

UGVCL has submitted that In the True up Order for FY 2016-17 dated 31st March, 2018, the Commission has considered the base power purchase cost at Rs. 4.22/unit and base FPPPA at Rs. 1.49/unit. As per the approved FPPPA formula, any increase in power purchase cost during the year over and above base power purchase cost of Rs. 4.22/unit is to be recovered through FPPPA over and above base FPPPA of Rs. 1.49/unit on quarterly basis. As per projected ARR for FY 2019-20, the weighted average power purchase cost is worked out to Rs. 4.34/unit as against base power purchase cost of Rs. 4.22/unit. Thus, the incremental power purchase cost of Rs. 0.12/unit for FY 2019-20 (i.e. Rs. 4.34 - 4.22) will be recovered through FPPPA over and above base FPPPA of Rs. 1.49/unit. Therefore, estimated revenue from FPPPA for FY 2019-20 is considered at Rs. 1.63/unit for FY 2019-20 (i.e. grossing up by approved losses), as shown below:

Table 6-4 FPPPA Charges for the FY 2019-20

| (Rs. Crore) | | | |
|-------------|---------------|---------|---------|
| Sr. No. | Particulars | 2018-19 | 2019-20 |
| 1 | Fixed Cost | 13520 | 11900 |
| 2 | Variable Cost | 19523 | 24734 |
| 3 | GETCO Cost | 3749 | 4115 |
| 4 | GUVNL Cost | 368 | 399 |
| 5 | PGCIL Charge | 1670 | 2077 |



| Sr. No. | Particulars | 2018-19 | 2019-20 |
|---------|---|--------------|--------------|
| 6 | SLDC Charge | 8 | 16 |
| 7 | Total Power Purchase Cost | 38838 | 43240 |
| 8 | Total Energy Requirements | 91973 | 99680 |
| 9 | Power purchase Cost (Rs. /kWh) | 4.22 | 4.34 |
| 10 | Increase in Power Purchase Cost | | 0.12 |
| 11 | Additional FPPPA Charges (Grossed up by Loss) | | 0.14 |
| 12 | Existing FPPPA Charges (Rs./kWh) | | 1.49 |
| 13 | Revised FPPPA Charges (Rs./kWh) | | 1.63 |

Commission's Analysis

The Commission allows FPPPA charges FY 2019-20 at 1.61 Rs. per kWh considering the Fixed Cost and variable Cost as approved at Table 5.46 and 5.47 of this Order as shown in Table below:

Table 6-5: FPPPA Charges for the FY 2019-20

| Sr. No. | Particulars | As per MYT Order for 2018-19 | Projected in MTR | Approved in MTR |
|---------|--|------------------------------|------------------|-----------------|
| 1 | Fixed Cost in Rs. Crore | 13520 | 11900 | 11900 |
| 2 | Variable Cost in Rs. Crore | 19523 | 24734 | 24572 |
| 3 | GETCO Cost in Rs. Crore | 3749 | 4115 | 4115 |
| 4 | GUVNL Cost in Rs. Crore | 368 | 399 | 399 |
| 5 | PGCIL Charge in Rs. Crore | 1670 | 2077 | 2077 |
| 6 | SLDC Charge in Rs. Crore | 8 | 16 | 29 |
| 7 | Total Power Purchase Cost in Rs. Crore | 38838 | 43240 | 43092 |
| 8 | Total Energy Requirements in MUs | 91973 | 99680 | 99680 |
| 9 | Power purchase Cost (Rs./kWh) | 4.22 | 4.34 | 4.32 |
| 10 | Increase in Power Purchase Cost in Paise/Unit | | 0.12 | 0.10 |
| 11 | Additional FPPPA Charges (Grossed up by Loss @ 17.36%) in Paise/Unit | | 0.14 | 0.12 |
| 12 | Existing FPPPA Charges (Rs./kWh) | | 1.49 | 1.49 |
| 13 | Revised FPPPA Charges (Rs./kWh) | | 1.63 | 1.61 |

Accordingly, the Commission allows FPPPA charges and revenue therefrom on the approved sales of 22967.58 MUs for FY 2019-20 at 1.61 Rs./kWh as shown in the Table below:

Table 6-6: Approved Revenue from FPPPA Charges for the FY 2019-20

| Particulars | Amount (Rs.Crore) |
|------------------------------------|-------------------|
| Rate of FPPPA considered (Rs./kWh) | 1.61 |
| Sales (MUs) | 22967.58 |
| Base FPPPA Charges (Rs. Crore) | 3697.78 |

6.3 Other consumer related income

UGVCL has estimated the other consumer related income at Rs. 203.30 Crore for FY 2018-19, as detailed in the Table below:

Table 6-7: Other Consumer related Income for FY 2019-20

| Particulars | 2019-20 |
|-------------------------------|---------|
| Other Income Consumer Related | 203.30 |

Petitioner's submission

UGVCL has submitted that the revenue from other consumer related income comprises of revenue on account of charges other than the basic charges applicable to the Consumers. These include income on account of meter rent, wheeling charges, inspection charges and miscellaneous charges.

Commission's Analysis

The Commission has observed that UGVCL has projected the other consumer related income for FY 2019-20 as actuals of FY 2017-18 excluding the meter rent.

The Commission, accordingly, approves the other consumer related income at Rs. 203.30 Crore for FY 2019-20.

Table 6-8: Approved other consumer related Income for FY 2019-20

| Particulars | 2019-20 |
|-------------------------------|---------|
| Other Income Consumer Related | 203.30 |

6.4 Agriculture Subsidy

Petitioner's submission

UGVCL submitted that the annual Agricultural Subsidy that was being received by the erstwhile GEB from the State Government will continue to be received by the four DISCOMs i.e. Rs 1100 Crores. The share of Agricultural Subsidy for FY 2019-20 is considered on pro-rata basis of agriculture consumption.

Table 6-9: Projected Agriculture Subsidy for FY 2019-20

| Particulars | 2018-19 |
|------------------------------|---------|
| Share of Agriculture Subsidy | 521.64 |

Commission's Analysis

The Commission considered the Agriculture Subsidy as claimed by the Petitioner.

Table 6-10: Approved Agriculture Subsidy for FY 2019-20

(Rs. Crore)

| Particulars | 2018-19 |
|------------------------------|---------|
| Share of Agriculture Subsidy | 521.64 |

The Commission considered the the Agriculture subsidy claimed by the Petitioner

The Commission, accordingly, approves Agricultural Subsidy as Rs.521.64 Crore for FY 2019-20.

6.5 Total Expected Revenue for FY 2019-20

Petitioner's submission

The total expected revenue for UGVCL comprises of revenue from sale of power at existing tariff, FPPPA charges, other consumer related income and Agriculture Subsidy. Total revenue for FY 2019-20 is shown in the Table below:

Table 6-11: Projected Revenue for FY 2019-20

(Rs. Crore)

| Sr. No. | Particulars | Amount |
|---------|---|-----------------|
| 1 | Revenue with Existing Tariff | 7640.78 |
| 2 | Base FPPPA Charges @ 163 paisa/kWh | 3743.72 |
| 3 | Other Income (Consumer related) | 203.3 |
| 4 | Agriculture Subsidy | 521.64 |
| 5 | Total Revenue including subsidy (1 to 4) | 12109.44 |

Commission's Analysis

The total revenue as estimated by the Commission for FY 2019-20 is shown in the Table below:

Table 6-12: Approved Total Revenue for FY 2019-20

(Rs. Crore)

| Sr. No. | Particulars | Amount |
|---------|---|-----------------|
| 1 | Revenue with Existing Tariff | 7640.78 |
| 2 | Base FPPPA Charges @ 161 paisa/kWh | 3697.78 |
| 3 | Other Income (Consumer related) | 203.3 |
| 4 | Agriculture Subsidy | 521.64 |
| 5 | Total Revenue including subsidy (1 to 4) | 12063.51 |

6.6 ARR for FY 2019-20

The Table below shows approved Aggregate Revenue Requirement including power purchase cost of UGVCL for the FY 2019-20.



Table 6-13: Approved Mid-Term Review ARR for FY 2019-20

| (Rs. Crore) | | |
|-------------|--|-----------------|
| Sr. No. | Particulars | Amount |
| | | 2019-20 |
| 1 | Cost of Power Purchase | 11128.50 |
| 2 | Operations & Maintenance Expenses | 711.06 |
| 2.1 | Employee Expenses | 608.92 |
| 2.2 | Repairs & Maintenance | 68.58 |
| 2.3 | Administration & General Expenses | 110.90 |
| 2.4 | Other Debits | 0.00 |
| 2.5 | Extraordinary Items | 0.00 |
| 2.6 | Net Prior Period Expenses / (Income) | 0.00 |
| 2.7 | Other Expenses Capitalised | (77.33) |
| 3 | Depreciation | 248.47 |
| 4 | Interest & Guarantee Charges | 163.43 |
| 5 | Interest on Working Capital | 0.00 |
| 6 | Provision for Bad Debts | 0.31 |
| 7 | Sub-Total [1 to 6] | 12251.77 |
| 8 | Return on Equity | 215.36 |
| 9 | Provision for Tax / Tax Paid | 14.38 |
| 10 | Total Expenditure (7 to 9) | 12481.51 |
| 11 | Less: Non-Tariff Income | 138.68 |
| 12 | Aggregate Revenue Requirement (10 - 11) | 12342.83 |

6.7 Estimated Revenue (Gap)/Surplus for FY 2019-20 for UGVCL

Based on the above, the estimated revenue (Gap) for FY 2019-20 at the existing tariff is worked out as outlined in the Table below:

Table 6-14: Estimated Revenue (Gap)/Surplus for FY 2019-20 at Existing Tariff for UGVCL

| (Rs. Crore) | | | |
|-------------|---|--------------------|----------------------------|
| Sr. No. | Particulars | Projected by UGVCL | Approved by the Commission |
| 1 | Aggregate revenue requirement | 12526.72 | 12342.83 |
| 2 | Revenue (Gap)/ Surplus from True up of FY 2017-18 | (34.52) | (43.20) |
| 3 | Total aggregate revenue requirement (1-2) | 12,561.25 | 12386.03 |
| 4 | Revenue with existing tariff | 7640.78 | 7640.78 |
| 5 | PPPA charges @ 161 paisa/kWh | 3743.72 | 3697.78 |
| 6 | Other income (Consumer related) | 203.30 | 203.30 |
| 7 | Agriculture Subsidy | 521.64 | 521.64 |
| 8 | Total revenue including subsidy (4+5+6+7) | 12109.44 | 12063.51 |
| 9 | (Gap)/Surplus (8-3) | (451.81) | (322.53) |

6.8 Consolidated Revenue (Gap)/Surplus of the State Owned DISCOMs

Since the uniform tariff for State owned DISCOMs has been envisaged in the MYT Order dated 6th September, 2011 as well as MYT Order dated 31st March, 2017, it is necessary to consider the consolidated (Gap)/Surplus of FY 2019-20 for all the State-owned DISCOMs, while determining the tariff for FY 2019-20. The consolidated (Gap)/Surplus computed for FY 2019-20 is shown in the Table below:

Table 6-15: Consolidated (Gap)/Surplus computed for FY 2019-20

| Particulars | DGVCL | MGVCL | PGVCL | UGVCL | Total |
|---|--------|---------|----------|----------|----------|
| Trued Up (Gap)/ Surplus of FY 2017-18 | 409.64 | 116.83 | (295.40) | (43.20) | 187.87 |
| Total (Gap)/ Surplus for FY 2019-20 including (Gap)/ Surplus of Trued Up Year | 175.01 | (13.46) | (688.19) | (322.53) | (849.17) |

(Rs. Crore)

UGVCL has stated that there is a pending Ag. Subsidy of Rs. 1665 Crore against subsidy for FY 2017-18 from Government of Gujarat. As per Section 65 of the Electricity Act, 2003, the subsidy was required to be released in advance. GUVNL has requested Government of Gujarat for release of outstanding subsidy amount.

Accordingly, after consideration of the amount of outstanding subsidy, the resultant Surplus works out to Rs. 815.83 Crore (1665-849.17) for FY 2019-20.

It is observed that there is a Surplus of Rs. 187.87 Crore against the true up of FY 2017-18, which is due to disallowance of Rs. 440.40 Crore claim of DGVCL on account of non-recovery of dues pending before various adjudicating authorities on the amount receivable from M/s Essar Steel India Limited. Therefore, this Surplus is not allowed to be passed through at this stage.

Further, the remaining surplus is on account of Mid-Term Review sought by the Petitioners and approval of the Commission based on the various parameters and Regulations of the third MYT period. The Commission feels that it may not be reasonable that such surplus to be passed through in the tariff as in response of representations of certain category of consumers, the Commission has made some changes in slab rate, optional tariff and reduction in Lift Irrigation tariff. Similarly, there are certain changes likely in the energy sales of high value consumers due to Open Access, uncertainty in power market, impact of revision in employee cost of DISCOMs on account of 7th Pay Commission etc. Hence, the Commission may consider such variations in the ARR of respective year true up.



7 Compliance of directives

7.1 Compliance to earlier directives

The Commission had given various directives to UGVCL in the Order dated 31st March 2017, compliance of which is mentioned below:

Directive 1: Meters on Distribution Transformers

UGVCL should install meters on balance transformers by 31.12.2016 and submit a report to the Commission. The DISCOM should submit the results of energy audit conducted along with counter measures taken into account by 31.12.2016.

Compliance:

UGVCL has submitted the progress report on providing Meters on Distribution Transformers as on September, 2018 as under:

| Distribution Transformer Metering | | | | | | SEPT.18 | |
|-----------------------------------|--------------|---------------------------------|--|-------------------------------|--------------------|---------------|----------|
| Discom | Category | No. of Distribution Transformer | DTR with Single Metered Consumer which is considered as DTR with Meter | No. of DTs metered physically | No. of DTs metered | % DT Metered | Pending |
| UGVCL | Industrial | 7235 | 2333 | 4902 | 7235 | 100.00 | 0 |
| | GIDC | 1490 | 363 | 1127 | 1490 | 100.00 | 0 |
| | Urban | 13792 | 640 | 13152 | 13792 | 100.00 | 0 |
| | JGY | 29744 | 3129 | 26615 | 29744 | 100.00 | 0 |
| | AG. DOM | 225403 | 142608 | 82795 | 225403 | 100.00 | 0 |
| | Total | 277664 | 149073 | 128591 | 277664 | 100.00 | 0 |

Commission's comments:

UGVCL has completed 100% work of installation of energy meters on Distribution Transformer. They are directed to initiate energy audit of Distribution Transformer of each category of feeders having higher distribution losses and report the action taken on such energy audit report.

Directive 2: Losses on Jyoti Gram Yojana feeders

DISCOMs are directed to identify the feeders with more than 50 % loss level and 5% loss reduction should be targeted for such feeders.

Compliance:



UGVCL has submitted the status of Distribution losses of JGY Feeders as under:

| Sr. No. | Year | Unit sent out [MUs] | Unit sold out [MUs] | % Loss |
|---------|---------|---------------------|---------------------|--------|
| 1 | 2012-13 | 2362.185 | 1837.117 | 22.23 |
| 2 | 2013-14 | 2529.814 | 1974.876 | 21.94 |
| 3 | 2014-15 | 2766.467 | 2182.678 | 21.10 |
| 4 | 2015-16 | 2955.158 | 2346.743 | 20.59 |
| 5 | 2016-17 | 3139.246 | 2511.423 | 20.00 |
| 6 | 2017-18 | 3398.128 | 2753.756 | 18.96 |

The Status of Distribution losses of 54 Nos of JGY Feeders are as follows:

| Sr. No. | Year | Unit sent out [MUs] | Unit sold out [MUs] | % Loss |
|---------|-----------------|---------------------|---------------------|--------|
| 1 | 2016-17 | 278.575 | 92.435 | 66.82 |
| 2 | 2017-18 | 281.813 | 98.955 | 64.89 |
| 3 | 2017-18(Aug-17) | 125.927 | 42.023 | 66.64 |
| 4 | 2018-19(Aug-18) | 131.948 | 45.856 | 65.25 |

UGVCL has submitted that in JGY category overall % distribution losses are reduced from 22.23% (2012-13) to 18.96% (2017-18) i.e reduced by 3.27% in last five years. Also in 54 Nos of JGY High losses feeders having more than 50% distribution losses is in reducing trends as per above table and out of 54 Nos of feeders up to Aug-18, 22 Nos of JGY feeders losses are reducing trends compared to target and 33 Nos of JGY feeders losses are in reducing trend compared to previous year same period. Company has made full efforts for reducing distribution losses on JGY feeders.

Commission's comments:

Compliance submitted by the Petitioner is noted. The Petitioner is directed to continue the efforts for reduction in the losses of the selected JGY feeders and submit quarterly report about actions taken in this regard to the Commission

Directive 3: Energy Audit and Segregation of HT & LT losses

The Commission has directed UGVCL to submit a report about actions taken to reduce technical and commercial losses on HT system and LT system including different feeders, transformers (DTC) on monthly basis to the Commission so as to monitor the losses

Compliance: .

UGVCL submitted that the Company has carried out activities like replacement of stop meters, provided Static meters in place of slow and sluggish old electromechanical meters, provided SMC, provided Aerial Bunch Conductor in place of open bare conductors, increase in HT/LT ratio, adoption of high voltage distribution system (HVDS), preventive and regular maintenance, Load Balancing, publicity campaign on theft of electricity as a social and economic crime and people informed of the provisions in electricity laws, public relation and awareness campaigns by utility, etc. As per BIS guideline, from FY: 2018-19 our utility is implemented to install star rated distribution transformer so that level 2 in agriculture feeders. Also by constant monitoring from higher authority and respective officers on all the high losses feeders allocated, the micro plan has already been implemented for further reduction of losses on feeders.

In this context, following specific activities has been carried out on feeders by the Company:

General Activity Carried Out:

| Particulars | Unit | Apr-18 | May-18 | June-18 | July-18 | Aug-18 | Sep-18 | Oct-18 |
|--------------------------|-------|--------|--------|---------|---------|--------|--------|--------|
| Maintenance HT line | Km | 7916.5 | 9468.2 | 9365.7 | 7790.9 | 7442.7 | 7817.6 | 8675.3 |
| Maintenance LT line | Km | 4134.8 | 4423.8 | 4535.9 | 4067.0 | 3753.6 | 3159.2 | 3971.1 |
| Maintenance of T'mer | Nos | 6684 | 7892 | 9518 | 8679 | 8753 | 7979 | 8714 |
| Feeder bifurcation | Nos | 18 | 15 | 19 | 34 | 25 | 31 | 38 |
| Arial Bunch Conductor | Km | 4.36 | 0.83 | 67.5 | 273.5 | 216.5 | 182.6 | 267.1 |
| XLPE Cable | Km | 11.41 | 22.33 | 14.28 | 22.76 | 13.89 | 22.08 | 15.67 |
| Meter Replacement 1-Ph | No. | 12433 | 14781 | 12835 | 15887 | 17082 | 11602 | 32668 |
| Meter Replacement 3-Ph | No. | 2326 | 1846 | 1802 | 2733 | 2202 | 1581 | 3410 |
| Renovation of Conductor | Km | 10 | 25 | 91 | 125 | 194 | 277.3 | 302 |
| Installation of 1-Ph SMC | No. | 7392 | 7763 | 9188 | 9143 | 6559 | 7463 | 11039 |
| Installation of 3-Ph SMC | No. | 1639 | 2740 | 2871 | 2911 | 1812 | 2469 | 3335 |
| Sealing 1-Ph | No. | 17162 | 23663 | 26734 | 26574 | 23634 | 19354 | 23098 |
| Sealing 3-Ph | No. | 4510 | 7028 | 6902 | 6307 | 4595 | 4835 | 6347 |
| Nos of conn. Checked | No. | 42094 | 51152 | 49366 | 44321 | 44147 | 48432 | 39783 |
| Nos of conn. Detected | No. | 1335 | 1488 | 1547 | 657 | 935 | 1165 | 1326 |
| Theft Assessment | Lacs. | 268.72 | 459.95 | 287.21 | 211.72 | 275.25 | 194.46 | 241.47 |

Commission's comments:

The Commission noted the compliance submitted by the Petitioner.

Directive 4: Replacement of Defective Meters

The Commission directed to ensure correct functioning of the meters so that the energy consumption is reflected correctly and accordingly correct revenue is earned from the consumers against cost of supply.



Compliance:

UGVCL has submitted that the faulty or improperly functioning meters are replaced regularly based on the monthly generated reports. This is a continuous process as new faulty meters are added during the month and the replacement of the same is also being carried out during the month.

The status of faulty meters quarter wise is as under:

| Sr. No. | Reporting Quarter period | Faulty meters pending to be replaced at the end of reporting quarter | | |
|---------|--------------------------|--|---------|-------|
| | | 1 phase | 3 phase | Total |
| 1 | June-18 | 4633 | 3101 | 7734 |
| 2 | Sept-18 | 4638 | 2311 | 6949 |
| 3 | Oct-18 | 3890 | 2448 | 6338 |

Commission's comments:

The Commission noted the compliance submitted by the Petitioner and directed to continue efforts to replace the defective energy meters as planned. Utilities may also conduct a study to understand the nature of fault and take up the issue with the manufacturers of such meters for mitigation.

Directive 5: Optimization of Power purchase Cost with varying demand at competitive rate.

The Commission has directed to plan out power purchase in advance on priority to optimise power purchase cost with the varying demand at competitive rate so as to maintain consistent and reliable supply in the State.

Compliance:

GUVNL has tied up adequate capacity on long term basis which can successfully meet the entire power demand including peak demand. However, availability of power from imported coal based projects has been highly varying during last 2 years specifically after Hon'ble Supreme Court's Order dated 11.4.2017.

As per the directive of the Commission and in order to ensure procurement of power at competitive rates and to optimize overall power purchase cost, GUVNL in consultation with SLDC, had invited bids well in advance in Jan-18 and tied up around 300 MW power for the period of March 2018 to May 2018 and also tied up 200-1025 MW for the period of September 2018 to December 2018 by inviting tender in July-18

through competitive bidding followed by reverse auction through DEEP Portal in accordance with Ministry of Power's Guidelines for Short term procurement of power.

In addition, GUVNL had invited bid for tie up of 500 MW power under Flexible Coal Utilization Scheme of Ministry of Power wherein supply is already commenced from Jan-18 which has enabled savings in coal transportation cost and ensured supply at competitive rates. GUVNL has also invited second bid for tie-up of 1000 MW power under flexible coal utilization scheme.

Further, considering the future requirement of power, GUVNL is contemplating to invite bids for capacity tie-up on long term basis for meeting the future power requirement without relying on short term arrangement.

Commission's comments:

The Commission noted the compliance of the Petitioner. It is further directed to sale Surplus power in the market looking to the availability of significant amount of cheaper RE power in the State by optimizing grid operations in consultation with SLDC/GUVNL so as end consumer gets benefited.

Directive 6: Detailed study to work out cost of supply at EHV level

In order to promote supply at higher voltages the DISCOMs are directed to carry out a detailed study to work out cost of supply at EHV level, reduction in technical loss for supplying electricity at higher voltages, and submit it to the Commission on or before 30th September, 2018.

Compliance:

On behalf of 4 DISCOMs, GUVNL has engaged a consultant to carry out a detailed study as per above directive of the Commission. The study work is under progress and the study report shall be submitted to the Commission in due course upon successful completion of study.

Commission's comments:

DISCOMs are directed to ensure timely completion of the study and submit the report by 30th June, 2019.

Directive 7: Scheme for Installation of solar pump for agriculture consumers

In order to promote renewable energy, the Commission has directed to explore the possibilities for promotion of installation of solar pump for agriculture consumers thereby promoting de-centralised energy generation.

Compliance:

In order to achieve multiple objectives of addressing the energy requirement of farmers and to promote de-centralized renewable energy generation, the State Government decided to utilize solar resources available in the State for the benefits of the farmers and accordingly notified the Scheme namely Suryashakti Kisan Yojna (SKY) to be implemented on pilot basis.

Major objectives of the scheme are:

- To provide adequate and reliable day time power to farmers by installation of solar PV panels.
- To incentivize farmers by selling Surplus solar power to DISCOM and to provide secondary source of income to farmers thereby encouraging farmers to efficiently utilization of power and water.
- To help farmers to become self reliant for their power requirement.
- To Create employment opportunities in rural area.
- To reduce financial burden of DISCOMs and Government by reducing the subsidized power to farmers.
- To promote source of renewable energy and meet solar renewable purchase obligation of DISCOMs.

As per the directive of the Commission, the scheme has been implemented on Pilot basis in the areas of all four DISCOMs.

Commission's comments:

Commission noted compliance of the Petitioner and directed to submit the outcome of pilot project.

Directive 8: Initiate study for implementing Demand Response Measures

The Commission has directed DISCOM to initiate study for implementing Demand Response Measures and submit its action plan by 30th Sept 2018.

Compliance:

On behalf of 4 DISCOMs, GUVNL has engaged a consultant to carry out a detailed study as per above directive of the Commission. The study work is under progress and the study report shall be submitted to the Commission in due course upon successful completion of study.

Commission's comments:

DISCOMs are directed to ensure timely completion of the study and submit the report by 30th June, 2019

7.2 Fresh directives

Directive 1:

Petitioner is directed to report the outcome of HVDS implementation along with the petition of next Tariff Order.

Directive 2:

Petitioner is directed to keep the FPPPA information available on their website for all the quarters of a year till the truing up exercise of that particular year is completed.

8 Fuel and Power Purchase Price Adjustment

8.1. Fuel Price and Power Purchase Price Adjustment

The Commission its Order in Case No. 1309/2013 and 1313/2013 vide dated 29.10.2013, has approved the formula as mentioned below:

$$\text{FPPPA} = \frac{[(\text{PPCA}-\text{PPCB})]}{[100-\text{Loss in \%}]}; \text{ Where,}$$

| | |
|------------------|---|
| PPCA | is the average power purchase cost per unit of delivered energy (including transmission cost), computed based on the operational parameters approved by the Commission or principles laid down in the Power Purchase Agreements in Rs./kWh for all the generation sources as approved by the Commission while determining ARR and who have supplied power in the given quarter and transmission charges as approved by the Commission for transmission network calculated as total power purchase cost billed in Rs. Million divided by the total quantum of power purchase in Million Units made during the quarter. |
| PPCB | is the approved average base power purchase cost per unit of delivered energy (including transmission cost) for all the generating stations considered by the Commission for supplying power to the company in Rs./kWh and transmission charges as approved by the Commission calculated as the total power purchase cost approved by the Commission in Rs. Million divided by the total quantum of power purchase in Million Units considered by the Commission. |
| Loss in % | is the weighted average of the approved level of Transmission and Distribution losses (%) for the four DISCOMs / GUVNL and TPL applicable for a particular quarter or actual weighted average in Transmission and Distribution losses (%) for four DISCOMs / GUVNL and TPL of the previous year for which true-up have been done by the Commission, whichever is lower. |

8.2. Base Price of Power Purchase (PPCB)

The Commission has approved the total energy requirement and the total Power Purchase Cost for all the DISCOMs including fixed cost, variable cost, GETCO cost, PGCIL charges, SLDC charges for FY 2019-20 from various sources as given in the Table below:



Table 8-1: Base price of power purchase

| Sr.No. | Particulars | FY 2019-20 |
|--------|--------------------------------|------------|
| 1 | Fixed Cost | 11900 |
| 2 | Variable Cost | 24572 |
| 3 | GETCO Cost | 4115 |
| 4 | GUVNL Cost | 399 |
| 5 | PGCIL Charge | 2077 |
| 6 | SLDC Charge | 29 |
| 7 | Total Power Purchase Cost | 43092 |
| 8 | Total Energy Requirement | 99680 |
| 9 | Power Purchase Cost (Rs./ kWh) | 4.32 |

As mentioned above the base Power Purchase cost for the DISCOMs is **Rs. 4.32/kWh**. GUVNL/DISCOMs may claim difference between actual power purchase cost and base power purchase cost approved in the Table above as per the approved FPPPA formula mentioned above.

Information regarding FPPPA recovery and the FPPPA calculations shall be kept on the website of the Licensee / GUVNL.

For any increase in FPPPA, worked out on the basis of above formula, beyond ten (10) paise per kWh in a quarter, prior approval of the Commission shall be necessary and only on approval of such additional increase by the Commission, the FPPPA can be billed to consumers.

FPPPA calculations shall be submitted to the Commission within one month from the end of the relevant quarter.

8.3. Shifting of Base FPPPA

DISCOMs have submitted that in the True up Order dated 31st March, 2018, the Commission have considered the base power purchase cost at Rs. 4.22/unit and base FPPPA at Rs. 1.49/unit. As per approved FPPPA formula, any increase in power purchase cost of Rs. 4.22/unit is to be recovered through FPPPA over and above base FPPPA of Rs. 1.49/unit on quarterly basis. As per projected ARR for FY 2019-20, the weighted average power purchase cost worked out to Rs. 4.34/unit. Thus, the incremental power purchase cost of Rs. 0.12/unit for FY 2019-20 (i.e. 4.34-4.22) to be recovered, after grossing up by approved loss, through FPPPA over and above base FPPPA of Rs. 1.49/unit. Accordingly, Discoms have proposed to shift base FPPPA from Rs. 1.49/unit to Rs. 1.63/unit.

The Commission has approved base power purchase cost for FY 2019-20 as Rs. 4.32/unit as stated above. Thus, there is an increase of Rs. 0.10/unit in the base power purchase cost of DISCOMs for FY 2019-20 over that of for FY 2018-19. The Commission finds it appropriate to increase the base FPPPA by Rs. 0.12/unit after grossing up the incremental base power purchase cost of Rs. 0.10/unit with the approved loss. Accordingly, the base FPPPA for FY 2019-20 is approved as Rs. 1.61/unit (1.49+0.12).



9 Wheeling charges and cross subsidy surcharge

9.1. Allocation matrix

Regulations 87 of the GERC (MYT) Regulations, 2016 stipulates that the Commission shall specify the wheeling charges of distribution wires business of the distribution licensees in the ARR and Tariff Order.

UGVCL has provided the allocation matrix for allocation of costs between wires business and retail supply business as notified in the GERC (MYT) Regulations, 2016 (Regulation 87) as shown in the table below:

Table 9-1: Allocation matrix for segregation of wheeling and retail supply for UGVCL for the FY 2019-20

| Sr. No. | Allocation Matrix | Wire Business | Retail Supply Business |
|---------|--|---------------|------------------------|
| 1 | Power Purchase Expenses | 0% | 100% |
| 2.1 | Employee Expenses | 60% | 40% |
| 2.2 | Repairs & Maintenance Expenses | 90% | 10% |
| 2.3 | Administration & General Expenses | 50% | 50% |
| 2.4 | Other Debits | 50% | 50% |
| 2.5 | Extraordinary Items | 50% | 50% |
| 2.6 | Net Prior Period Expenses / (Income) | 25% | 75% |
| 2.7 | Other Expenses Capitalized | 55% | 45% |
| 3 | Depreciation | 90% | 10% |
| 4 | Interest & Finance charges | 90% | 10% |
| 5 | Interest on Working Capital & Security Deposit | 10% | 90% |
| 6 | Bad Debts Written off | 0% | 100% |
| 7 | Income Tax | 90% | 10% |
| 8 | Return on Equity | 90% | 10% |
| 9 | Non-tariff income | 10% | 90% |

Based on the above allocation the approved ARR for wires business and retail supply business for FY 2019-20 are computed as shown in the table below:.

Table 9-2: Allocation of ARR between wheeling and retail supply business for UGVCL for FY 2018-19

| (Rs. Crore) | | | | |
|-------------|-------------------------------------|--------------|---------------|------------------------|
| Sr. No. | Particulars | Distribution | Wire Business | Retail Supply Business |
| 1 | Power Purchase Expenses | 11128.50 | - | 11128.50 |
| 2 | O & M Expenses | 711.06 | 439.99 | 271.07 |
| 2.1 | Employee Expenses | 608.92 | 365.35 | 243.57 |
| 2.2 | Repairs & Maintenance Expenses | 68.58 | 61.72 | 6.86 |
| 2.3 | Administration & General Expenses | 110.90 | 55.45 | 55.45 |
| 2.4 | Other Debits | - | - | - |
| 2.5 | Extraordinary Items | - | - | - |
| 2.6 | Net Prior Period Expenses /(Income) | - | - | - |



| Sr. No. | Particulars | Distribution | Wire Business | Retail Supply Business |
|---------|--------------------------------------|-----------------|---------------|------------------------|
| 2.7 | Other Expenses Capitalized | (77.33) | (42.53) | (34.80) |
| 3 | Depreciation | 248.47 | 223.62 | 24.85 |
| 4 | Interest & Finance Charges | 72.64 | 65.38 | 7.26 |
| 5 | Interest on Security Deposit | 90.79 | 9.08 | 81.72 |
| 6 | Interest on Working Capital | - | - | - |
| 7 | Bad Debts Written Off | 0.31 | - | 0.31 |
| 8 | Contribution to Contingency Reserves | - | - | - |
| 9 | Total Revenue Expenditure | 12251.77 | 738.06 | 11513.71 |
| 10 | Return on Equity Capital | 215.36 | 193.82 | 21.54 |
| 11 | Income Tax | 14.38 | 12.94 | 1.44 |
| 12 | Aggregate Revenue Requirement | 12481.51 | 944.83 | 11536.68 |
| 14 | Less: Non-Tariff Income | 138.68 | 13.87 | 124.81 |
| 15 | Aggregate Revenue Requirement | 12342.83 | 930.96 | 11411.87 |

9.2. Wheeling charges

The Wheeling Charges for the four Distribution Companies, DGVCL, MGCVCL, PGVCL and UGVCL for the FY 2019-20, as given below are applicable for use of the distribution system of a licensee by other licenses or generating companies or captive power plants or consumers / users who are permitted open access under Section 42 (2) of the Electricity Act, 2003.

Table 9-3: Wheeling Charges for FY 2019-20

| Sr. No. | Particulars | Units | FY 2019-20 |
|---------|---|----------------|--------------|
| 1 | Distribution costs of the four DISCOMs | Rs. Crore | 4659.44 |
| 2 | Distribution cost of the four DISCOMs at 11 kV level (30% of total distribution cost) | Rs. Crore | 1397.83 |
| 3 | Distribution cost of the four DISCOMs at LT level (70% of total distribution cost) | Rs. Crore | 3261.61 |
| 4 | Energy input at 11 kV | MUs | 94414 |
| 5 | Wheeling Charges at 11 kV | Ps./kWh | 14.81 |
| 6 | Energy Input at 400 V | MUs | 51334 |
| 7 | Wheeling Charges at 400 V (LT) | Ps./kWh | 63.54 |

Accordingly, the Commission approves wheeling charges for HT network (11 KV system) at 14.81 Paise per unit and wheeling charges for LT network (400 V system) at 63.54 Paise per unit.

Distribution Loss

The distribution loss at 11 kV and 400 V during FY 2019-20 are given below:

| Particulars | Point of energy delivered | |
|------------------------|---------------------------|-----------|
| | 11 kV | 400 Volts |
| 11 kV, 22 kV and 33 kV | 10% | 12.75% |
| 400 Volts | | 5.05% |

The losses in HT and LT network are 10% and 5.05% respectively, with respect to energy input to the segment of the system. In case injection at 11 kV levels and drawal at LT level envisages use of both the networks i.e. 11 kV and LT, in that case, the combined loss works out to 12.75% of the energy injection at 11 kV network.

The above wheeling charges payable shall be uniform in all the four distribution companies, DGVCL, MGVCL, PGVCL and UGVCL.

9.3. Cross Subsidy Surcharges

The cross subsidy surcharge is based on the formula given in the Tariff Policy as below:

$$S = T - [C / (1 - L/100) + D + R]$$

Where,

- T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation
- C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation
- D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level
- L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level
- R is the per unit cost of carrying regulatory assets.

The cross subsidy surcharge based on the above formula is worked out as shown in the Table below:

Table 9-4: Cross subsidy surcharge for FY 2019-20

| Sr. No. | Particulars | Units | HT Industry |
|---------|-----------------------------|------------|-------------|
| 1 | T | Rs./ kWh | 6.82 |
| 2 | C | Rs./ kWh | 4.32 |
| 3 | D | Paise/ kWh | 14.81 |
| 4 | L | % | 10% |
| 5 | S (Cross Subsidy Surcharge) | Rs./ kWh | 1.87 |

$$S = 6.82 - [4.32/(1-0.10) + (14.81/100) + 0] = 1.87$$



Thus, Cross Subsidy Surcharge as per Tariff Policy, 2016 works out to Rs. 1.87 /kWh for the four State owned Distribution companies viz. DGVCL, MGVCL, PGVCL and UGVCL.

However, Tariff Policy, 2016 provides that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking Open Access.

In view of above, the Commission decided to restrict the Cross Subsidy Surcharge leviable from the consumers of the four State Owned Distribution Companies, seeking Open Access, for FY 2019-20 at Rs. 1.36 /kWh.

Accordingly, Cross Subsidy Surcharge for HT Category = **1.36 Rs. /kWh for FY 2019-20.**

10 Tariff Philosophy and Tariff Proposals

10.1. Introduction

The Commission is guided by the provisions of the Electricity Act, 2003, the National Electricity Policy (NEP), the Tariff Policy, the Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and GERC (MYT) Regulations, 2016 notified by the Commission.

Section 61 of the Act lays down the broad principles, and guidelines for determination of retail supply tariff. The basic principle is to ensure that the tariff should progressively reflect the cost of supply of electricity and reduce the cross subsidies amongst categories within a period to be specified by the Commission.

10.2. DISCOMs Tariff Proposal and Changes in Tariff Structure

Petitioner's Submission

The change/revision/modification proposed in the tariff structure proposed by the Petitioner for FY 2019-20 is as under:

Existing Provision

"Tariff Schedule"

10. RATE AG

This tariff is applicable to services used for irrigation purposes only excluding installations covered under LTP- Lift Irrigation category.

Proposed Provision

"Tariff Schedule"

10. RATE AG

This tariff is applicable to services used for irrigation purposes only excluding (i) installations covered under LTP- Lift Irrigation category, (ii) Floriculture, (iii) Horticulture, (iv) Sericulture, (v) Fishries, (vi) Dairy, (vii) Tissue Culture activities, (viii) Nursery.

Commission's Analysis

The Commission has examined the proposal of the Licensee. Since, no detail was produced by the Petitioner in the proposed change, the Commission has decided not

to accept proposal of the Petitioner at this stage. Accordingly, there will be no change in Tariff Schedule.

10.3. Rationalization of Tariff

Some of the stake holder have suggested to modify the Tariff Schedule. The details suggestions considered by the Commission is given as under;

10.3.1 Extending benefit of Optional Demand Based Tariff to small consumers

Some of the stake holder have suggested to insert option clause about availability of demand-based tariff in the description of NRGP category also for the knowledge of the consumers. It is also suggested to reduce minimum billing criteria for LTMD category from 10 KW to 6 KW. The Commission has accepted both the suggestions and necessary changes have been made in the Tariff Schedule attached with this Order.

10.3.2 Numbers of Slabs in RGP Tariff Category

It has been suggested by stake holders that one slab of 200 to 250 Unit should be removed and one more slab for consumption more than 400 Unit is to be introduced with higher rate of energy charges as consumers with higher capacity to pay have to pay higher charges. The Commission agrees with the suggestion of removal of slab of 200 to 250 Unit and decides to merge it with the Slab of 100 to 200 Unit. Thus, the Energy Charge Rate for the Consumption between 100 to 250 Unit/Month shall be charged at Rs. 4.15 per Unit. In order to keep the slabs minimum, the Commission does not accept the suggestion of introduction of new slab. With this modification there will be total reduction of Rs. 5.31 Crore in the revenue of the four DISCOM.

10.3.3 Reduction in the Tariff for Lift Irrigation.

It has been represented before the Commission to reduce the tariff of Lift Irrigation and make it at par with tariff of AG category since the end purpose of the usage of electricity by consumers of both the categories is same. The Petitioner responded that the consumers of Lift Irrigation category are being provided with 24 Hrs. supply whereas consumers of AG category are getting supply for 8-10 hours on roster basis. Hence both categories can not be equated though the end use of electricity by both the categories is same. The Commission find it appropriate to differentiate among AG and Lift Irrigation category. It has been observed by the Commission that in LTP-Lift Irrigation category there are generally more than one consumers and in HTP V category there is a group of consumers. In order to motivate the farmers who do not

have at present any electricity connection form a co-operative society and take advantage of Lift Irrigation wherein under one single connection a group of farmers stand to benefit. This will also reduce their waiting period and on the other hand utilities' list of pending applications will also get reduced, if a group of farmers form a co-operative society and opts for Lift Irrigation under LTP-Lift Irrigation category / HTP V category. This will help utilities in reducing their losses also. Accordingly, the Commission considers to offer a tariff of Rs. 1.50/unit to the consumers of these categories. With this modification, there will be impact of Rs. 0.71 Crore in the revenue of the four DISCOMs.

With changes in Tariff as mentioned at Para 10.3.2 and 10.3.3, the total reduction is expected to be Rs. 6.02 Crore in the Revenue of the four DISCOMs in FY 2019-20.

10.4. Deletion of Prompt Payment Rebate clause from the Tariff Schedule

As per Clause 42.3 of the GERC (MYT) Regulations, 2016, it is optional for the Distribution Utilities to allow rebate to consumer on payment of bills within seven days of presentation of bills. Thus, providing rebate to consumer is not mandatory for Distribution Licensees. The same provision was mentioned in the Tariff Schedule of FY 2018-19, but was creating confusion amongst consumers that Distribution Licensees are required to give rebate but are not giving. To avoid such kind of confusion now onwards, the Commission finds it appropriate to delete the provision from the Tariff Schedule of FY 2019-20. However, the stipulation made in Clause 42.3 read with Clause 42.4 of the GERC (MYT) Regulations, 2016 continues to be in force. Hence, the Distributions licensees are free to provide rebate to the consumers but will not be allowed as a cost item in the ARR of the Licensee.

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement for FY 2019-20 and FY 2020-21 in the Mid Term Review for UGVCL as shown in the Table below:

Approved ARR for FY 2019-20 and FY 2020-21

| Sr. No. | Particulars | Approved for Mid-Term Review | |
|-----------|--|------------------------------|-----------------|
| | | 2019-20 | 2020-21 |
| 1 | Cost of Power Purchase | 11128.50 | 11843.65 |
| 2 | Operations & Maintenance Expenses | 711.06 | 751.74 |
| 2.1 | Employee Cost | 608.92 | 643.75 |
| 2.2 | Repair & Maintenance | 68.58 | 72.50 |
| 2.3 | Administration & General Charges | 110.90 | 117.24 |
| 2.4 | Other Debits | 0.00 | 0.00 |
| 2.5 | Extraordinary Items | 0.00 | 0.00 |
| 2.6 | Net Prior Period Expenses / (Income) | 0.00 | 0.00 |
| 2.7 | Other Expenses Capitalised | (77.33) | (81.76) |
| 3 | Depreciation | 248.47 | 273.65 |
| 4 | Interest & Guarantee Charges | 163.43 | 173.91 |
| 5 | Interest on Working Capital | 0.00 | 0.00 |
| 6 | Provision for Bad Debts | 0.31 | 0.31 |
| 7 | Sub-Total [1 to 6] | 12251.77 | 13043.26 |
| 8 | Return on Equity | 215.36 | 231.86 |
| 9 | Provision for Tax / Tax Paid | 14.38 | 14.38 |
| 10 | Total Expenditure (7 to 9) | 12481.51 | 13289.50 |
| 11 | Less: Non-Tariff Income | 138.68 | 138.68 |
| 12 | Aggregate Revenue Requirement (10 - 11) | 12342.83 | 13150.82 |

The retail supply tariffs for UGVCL distribution area for FY 2019-20 determined by the Commission are annexed to this Order. This Order shall come into force with effect from the 1st May 2019. The revised rate shall be applicable for the electricity consumption from the 1st May, 2019 onwards.

Sd/-

P. J. THAKKAR
 Member

Sd/-

K. M. SHRINGARPURE
 Member

Sd/-

ANAND KUMAR
 Chairman

Place: Gandhinagar
 Date: 24/04/2019

ANNEXURE: TARIFF SCHEDULE

TARIFF FOR SUPPLY OF ELECTRICITY AT LOW TENSION, HIGH TENSION, AND EXTRA HIGH TENSION Effective from 1st May, 2019

GENERAL

1. The tariff figures indicated in this tariff schedule are the tariff rates payable by the consumers of Distribution Licensees viz. DGVCL, MGVCL, PGVCL and UGVCL.
2. These tariffs are exclusive of Electricity Duty, tax on sale of electricity, taxes and other charges levied by the Government or other competent authorities from time to time which are payable by the consumers, in addition to the charges levied as per the tariff.
3. All these tariffs for power supply are applicable to only one point of supply.
4. The charges specified are on monthly basis. Distribution Licensee may decide the period of billing and adjust the tariff rate accordingly.
5. Except in cases where the supply is used for purposes for which a lower tariff is provided in the tariff schedule, the power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.
6. The various provisions of the GERC (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulations, except Meter Charges, will continue to apply.
7. Conversion of Ratings of electrical appliances and equipments from kilowatt to B.H.P. or vice versa will be done, when necessary, at the rate of 0.746 kilowatt equal to 1 B.H.P.
8. The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power or kilo watt (HP or kW) as the case may be. The fraction of less than 0.5 shall be rounded off to next 0.5. The billing of energy charges will be done on complete one kilo-watt-hour (kWh).
9. The Connected Load for the purpose of billing will be taken as the maximum load connected during the billing period.
10. The Fixed charges, minimum charges, demand charges, and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.
11. Contract Demand shall mean the maximum kW / kVA for the supply of which licensee

undertakes to provide facilities to the consumer from time to time.

12. Fuel Cost and Power Purchase Adjustment Charges shall be applicable in accordance with the Formula approved by the Gujarat Electricity Regulatory Commission from time to time.
13. Payment of penal charges for usage in excess of contract demand / load for any billing period does not entitle the consumer to draw in excess of contract demand / load as a matter of right.
14. The payment of power factor penalty does not exempt the consumer from taking steps to improve the power factor to the levels specified in the Regulations notified under the Electricity Act, 2003 and licensee shall be entitled to take any other action deemed necessary and authorized under the Act.
15. Delayed payment charges for all consumers:
 - No delayed payment charges shall be levied if the bill is paid within ten days from the date of billing (excluding date of billing).
 - Delayed payment charges will be levied at the rate of 15% per annum in case of all consumers except Agricultural category for the period from the due date till the date of payment if the bill is paid after due date. Delayed payment charges will be levied at the rate of 12% per annum for the consumer governed under Rate AG from the due date till the date of payment if the bill is paid after due date.
 - For Government dues, the delayed payment charges will be levied at the rate provided under the relevant Electricity Duty Act.



PART - I

**SCHEDULE OF TARIFF FOR SUPPLY OF ELECTRICITY
 AT LOW AND MEDIUM VOLTAGE**

1. RATE: RGP

This tariff is applicable to all services in the residential premises which are not covered under 'Rate: RGP (Rural)' Category.

- Single-phase supply- Aggregate load up to 6 kW
- Three-phase supply- Aggregate load above 6 kW

1.1 FIXED CHARGES / MONTH:

Range of Connected Load: (Other than BPL Consumers)

| | | |
|-----|--------------------------|--------------------|
| (a) | Up to and including 2 kW | Rs. 15/- per month |
| (b) | Above 2 to 4 kW | Rs. 25/- per month |
| (c) | Above 4 to 6 kW | Rs. 45/- per month |
| (d) | Above 6 kW | Rs. 70/- per month |

For BPL Household Consumers:

| | |
|---------------|-------------------|
| Fixed charges | Rs. 5/- per month |
|---------------|-------------------|

PLUS

**1.2 ENERGY CHARGES: FOR THE TOTAL MONTHLY CONSUMPTION:
 (OTHER THAN BPL CONSUMERS)**

| | | |
|-----|-----------------|--------------------|
| (a) | First 50 units | 305 Paise per Unit |
| (b) | Next 50 units | 350 Paise per Unit |
| (c) | Next 150 units | 415 Paise per Unit |
| (d) | Above 250 units | 520 Paise per Unit |

**1.3 ENERGY CHARGES: FOR THE TOTAL MONTHLY CONSUMPTION:
 FOR THE CONSUMER BELOW POVERTY LINE (BPL)****

| | | |
|-----|----------------|--------------------|
| (a) | First 30 units | 150 Paise per Unit |
|-----|----------------|--------------------|



| | | |
|-----|---------------------|-----------------|
| (b) | For remaining units | Rate as per RGP |
|-----|---------------------|-----------------|

**The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the sub-division office of the Distribution Licensee. The concessional tariff is only for 30 units per month.

1.4 MINIMUM BILL

Payment of fixed charges as specified in 1.1 above.

2. RATE: RGP (RURAL)

This tariff is applicable to all services for residential premises located in areas within Gram Panchayat as defined in the Gujarat Panchayats Act.

- Single-phase supply- Aggregate load up to 6 kW
- Three-phase supply- Aggregate load above 6 kW

2.1 FIXED CHARGES / MONTH:

Range of Connected Load: (Other than BPL Consumers)

| | | |
|-----|--------------------------|--------------------|
| (a) | Up to and including 2 kW | Rs. 15/- per month |
| (b) | Above 2 to 4 kW | Rs. 25/- per month |
| (c) | Above 4 to 6 kW | Rs. 45/- per month |
| (d) | Above 6 kW | Rs. 70/- per month |

For BPL Household Consumers:

| | |
|---------------|-------------------|
| Fixed charges | Rs. 5/- per month |
|---------------|-------------------|

PLUS

2.2 ENERGY CHARGES: FOR THE TOTAL MONTHLY CONSUMPTION:

(OTHER THAN BPL CONSUMERS)

| | | |
|-----|----------------|--------------------|
| (a) | First 50 units | 265 Paise per Unit |
| (b) | Next 50 units | 310 Paise per Unit |
| (c) | Next 150 units | 375 Paise per Unit |



| | | |
|-----|-----------------|--------------------|
| (d) | Above 250 units | 490 Paise per Unit |
|-----|-----------------|--------------------|

2.3 ENERGY CHARGES: FOR THE TOTAL MONTHLY CONSUMPTION:

FOR THE CONSUMER BELOW POVERTY LINE (BPL) **

| | | |
|-----|---------------------|-------------------------|
| (a) | First 30 units | 150 Paise per Unit |
| (b) | For remaining units | Rate as per RGP (Rural) |

**The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the sub-division office of the Distribution Licensee. The concessional tariff is only for 30 units per month.

2.4 MINIMUM BILL:

Payment of fixed charges as specified in 2.1 above.

Note: If the part of the residential premises is used for non-residential (commercial) purposes by the consumers located within 'Gram Panchayat' as defined in Gujarat Panchayat Act, entire consumption will be charged under this tariff.

3. RATE: GLP

This tariff is applicable to the educational institutes and other institutions registered with the Charity Commissioner or similarly placed authority designated by the Government of India for such intended purpose and research and development laboratories.

| | | |
|-----|----------------|--------------------|
| (a) | Fixed charges | Rs. 70/- per month |
| (b) | Energy charges | 390 Paise per Unit |

4. RATE: NON-RGP

This tariff is applicable to the services for the premises those are not covered in any other tariff categories and having aggregate load up to and including 40 kW.

Consumer under this category may opt to be charged as per category – 'RATE:LTMD'.

4.1 FIXED CHARGES PER MONTH:

| | | |
|-----|----------------------------------|-----------------|
| (a) | First 10 kW of connected load | Rs. 50/- per kW |
| (b) | For next 30 kW of connected load | Rs. 85/- per kW |



PLUS

4.2 ENERGY CHARGES:

| | | |
|-----|--|--------------------|
| (a) | For installation having contracted load up to and including 10 kW: for entire consumption during the month | 435 Paise per Unit |
| (b) | For installation having contracted load exceeding 10 kW: for entire consumption during the month | 465 Paise per Unit |

4.3 MINIMUM BILL PER INSTALLATION FOR SEASONAL CONSUMERS

(a) "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice candy machines, ginning and pressing factory, oil mill, rice mill, huller, salt industry, sugar factory, khandsari, cold storage plants (including such plants in fisheries industry), tapioca industries manufacturing starch, etc.

(b) Any consumer, who desires to be billed for the minimum charges on annual basis shall intimate to that effect in writing at least one month before commencement of billing period about the off-season during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The off-season period at any time shall be a full calendar month/months. The total period of the off-season so declared and observed shall be not less than three calendar months in a calendar year.

(c) The total minimum amount under the head "Fixed and Energy Charges" payable by the seasonal consumer satisfying the eligibility criteria under sub-clause (a) above and complying with the provision stipulated under sub-clause (b) above shall be Rs. 1800 per annum per kW of the contracted load.

(d) The units consumed during the off-season period shall be charged for at a flat rate of 480 Paise per unit.

(e) The electricity bills related to the off-season period shall not be taken into account towards the amount payable against the annual minimum bill. The amount paid by the consumer towards the electricity bills related to the seasonal period only under the heads "Fixed Charges" and "Energy Charges", shall be taken into account while determining the amount of short-fall payable towards the annual minimum bill as specified under sub-clause (c) above.

5. RATE: LTMD

This tariff is applicable to the services for the premises those are not covered in any other tariff

categories and having aggregate load above 40 kW and up to 100 kW.

This tariff shall also be applicable to consumer covered in category- 'Rate: Non-RGP' so opts to be charged in place of 'Rate: Non-RGP' tariff.

5.1 FIXED CHARGES:

| | | |
|-----|---|----------------------------|
| | For billing demand up to the contract demand | |
| (a) | (i) For first 40 kW of billing demand | Rs. 90/- per kW per month |
| | (ii) Next 20 kW of billing demand | Rs. 130/- per kW per month |
| | (iii) Above 60 kW of billing demand | Rs. 195/- per kW per month |
| (b) | For billing demand in excess of the contract demand | Rs. 265/- per kW |

PLUS

5.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For the entire consumption during the month | 460 Paise per Unit |
|---|--------------------|

PLUS

5.3 REACTIVE ENERGY CHARGES:

| | |
|---|--------------------|
| For all the reactive units (KVARH) drawn during the month | 10 paise per KVARH |
|---|--------------------|

5.4 BILLING DEMAND

The billing demand shall be highest of the following:

- (a) Eighty-five percent of the contract demand
- (b) Actual maximum demand registered during the month
- (c) 6 kW

5.5 MINIMUM BILL

Payment of demand charges every month based on the billing demand.

5.6 SEASONAL CONSUMERS TAKING LTMD SUPPLY:

5.6.1 The expression, "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice-candy machines, ginning and pressing factory, oil mill, rice mill, salt industry, sugar factory, khandsari, cold storage plants (including such



plants in fishery industry), tapioca industries manufacturing starch, pumping load or irrigation, white coal manufacturers etc.

- 5.6.2** Any consumer, who desires to be billed for the minimum charges on annual basis shall intimate to that effect in writing at least one month before commencement of billing period about the off-season during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The off-season period at any time shall be a full calendar month/months. The total period of the off-season so declared and observed shall be not less than three calendar months in a calendar year.
- 5.6.3** The total minimum amount under the head “Demand and Energy Charges” payable by a seasonal consumer satisfying the eligibility criteria under sub-clause 5.6.1 above and complying with provisions stipulated under sub-clause 5.6.2 above shall be Rs. 2970 per annum per kW of the billing demand.
- 5.6.4** The billing demand shall be the highest of the following:
- (a) The highest of the actual maximum demand registered during the calendar year.
 - (b) Eighty-five percent of the arithmetic average of contract demand during the year.
 - (c) 6 kW
- 5.6.5** Units consumed during the off-season period shall be charged for at the flat rate of 470 Paise per unit.

6. RATE: NON-RGP NIGHT

This tariff is applicable for aggregate load up to 40 kW and using electricity **exclusively during night hours** from 10:00 PM to 06:00 AM next day. (The supply hours shall be regulated through time switch to be provided by the consumer at his cost.)

6.1 FIXED CHARGES PER MONTH:

| |
|---|
| 50% of the Fixed charges specified in Rate Non-RGP above. |
|---|

PLUS

6.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For entire consumption during the month | 260 Paise per Unit |
|---|--------------------|

NOTE:

1. 15% of the contracted demand can be availed beyond the night hours prescribed as per para 6 above.



2. 10% of total units consumed during the billing period can be availed beyond the night hours prescribed as per para 6 above.
3. In case the consumer failed to observe condition no. 1 above during any of the billing month, then demand charge during the relevant billing month shall be billed as per Non-RGP category demand charge rates given in para 4.1 of this schedule.
4. In case the consumer failed to observe condition no. 2 above during any of the billing month, then entire energy consumption during the relevant billing month shall be billed as per Non-RGP category energy charge rates given in para 4.2 of this schedule.
5. In case the consumer failed to observe above condition no. 1 and 2 both during any of the billing month, then demand charge and entire energy consumption during the relevant billing month shall be billed as per Non-RGP category demand charge and energy charge rates given in para 4.1 and 4.2 respectively, of this schedule.
6. This tariff shall be applicable if the consumer so opts to be charged in place of Non-RGP tariff by using electricity exclusively during night hours as above.
7. This option can be exercised to shift from NON-RGP tariff category to NON-RGP NIGHT tariff or from NON-RGP NIGHT tariff category to NON-RGP tariff four times in a calendar year by giving not less than 15 days' advance notice in writing before commencement of billing period.

7. RATE: LTMD- NIGHT

This tariff is applicable for aggregate load above 40 kW and using electricity **exclusively during night hours** from 10.00 PM to 06.00 AM next day. (The supply hours shall be regulated through time switch to be provided by the consumer at his cost.)

7.1 FIXED CHARGES PER MONTH:

| |
|---|
| 50% of the Fixed charges specified in Rate LTMD above. |
|---|

PLUS

7.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For entire consumption during the month | 260 Paise per Unit |
|---|--------------------|

PLUS

7.3 REACTIVE ENERGY CHARGES:

| | |
|---|--------------------|
| For all reactive units (KVARH) drawn during the month | 10 Paise per KVARH |
|---|--------------------|



NOTE:

1. 15% of the contracted demand can be availed beyond the night hours prescribed as per para 7 above.
2. 10% of total units consumed during the billing period can be availed beyond the night hours prescribed as per para 7 above.
3. In case the consumer failed to observe condition no. 1 above during any of the billing month, then demand charge during the relevant billing month shall be billed as per LTMD category demand charge rates given in para 5.1 of this schedule.
4. In case the consumer failed to observe condition no. 2 above during any of the billing month, then entire energy consumption during the relevant billing month shall be billed as per LTMD category energy charge rates given in para 5.2 of this schedule.
5. In case the consumer failed to observe above condition no. 1 and 2 both during any of the billing month, then demand charge and entire energy consumption during the relevant billing month shall be billed as per LTMD category demand charge and energy charge rates given in para 5.1 and 5.2 respectively, of this schedule.
6. This tariff shall be applicable if the consumer so opts to be charged in place of LTMD tariff by using electricity exclusively during night hours as above.
7. This option can be exercised to shift from LTMD tariff category to LTMD-NIGHT tariff or from LTMD-NIGHT tariff category to LTMD tariff four times in a calendar year by giving not less than 15 days' advance notice in writing before commencement of billing period.

8. RATE: LTP- LIFT IRRIGATION

Applicable for supply of electricity to Low Tension Agricultural consumers contracting load up to 125 HP requiring continuous (twenty-four hours) power supply for lifting water from surface water sources such as canal, river, & dam and supplying water directly to the fields of farmers for agricultural irrigation only.

| | | |
|-------------|---|--------------------|
| (a) | Fixed charges per month | Rs. 20/- per HP |
| PLUS | | |
| (b) | Energy charges For entire consumption during the month | 150 Paise per Unit |



9. RATE: WWSP

This tariff shall be applicable to services used for water works and sewerage pumping purposes.

9.1 Type I – Water works and sewerage pumps operated by other than local authority:

| | | |
|-------------|--|--------------------|
| (a) | Fixed charges per month | Rs. 25/- per HP |
| PLUS | | |
| (b) | Energy charges per month: For entire consumption during the month | 430 Paise per Unit |

9.2 Type II – Water works and sewerage pumps operated by local authority such as Municipal Corporation, Gujarat Water Supply & Sewerage Board located outside Gram Panchayat Area will also attract this tariff:

| | | |
|-------------|--|--------------------|
| (a) | Fixed charges per month | Rs. 20 per HP |
| PLUS | | |
| (b) | Energy charges per month: For entire consumption during the month | 410 Paise per Unit |

9.3 Type III – Water works and sewerage pumps operated by Municipalities / Nagarpalikas and Gram Panchayats or Gujarat Water Supply & Sewerage Board for its installations located in Gram Panchayats:

| | |
|--|----------------|
| Energy charges per month: For entire consumption during the month | 320 Paise/Unit |
|--|----------------|

9.4 TIME OF USE DISCOUNT:

Applicable to all the water works consumers having connected load of 50 HP and above for the energy consumption during the Off-Peak Load Hours of the Day.

| | |
|--|-------------------|
| For energy consumption during the off-peak period, viz., 1100 Hrs. to 1800 Hrs. | 40 Paise per Unit |
| For energy consumption during night hours, viz., 2200 Hrs. to 0600 Hrs. next day | 85 Paise per Unit |



10. RATE: AG

This tariff is applicable to services used for irrigation purposes only excluding installations covered under LTP- Lift Irrigation category.

10.1 The rates for following group are as under:

10.1.1 HP BASED TARIFF:

| | |
|----------------------------|--------------------------|
| For entire contracted load | Rs. 200 per HP per month |
|----------------------------|--------------------------|

ALTERNATIVELY

10.1.2 METERED TARIFF:

| | |
|--|-----------------------------|
| Fixed Charges | Rs. 20 per HP per month |
| Energy Charges: For entire consumption | 60 Paise per Unit per month |

10.1.3 TATKAL SCHEME:

| | |
|--|-----------------------------|
| Fixed Charges | Rs. 20 per HP per month |
| Energy Charges: For entire consumption | 80 Paise per Unit per month |

NOTE: The consumers under Tatkal Scheme shall be eligible for normal metered tariff as above, on completion of five years period from the date of commencement of supply.

10.2 No machinery other than pump water for irrigation (and a single bulb or CFL up to 40 watts) will be permitted under this tariff. Any other machinery connected in the installation governed under this tariff shall be charged separately at appropriate tariff for which consumers shall have to take separate connection.

10.3 Agricultural consumers who desire to supply water to brick manufacturing units shall have to pay Rs. 100/HP per annum subject to minimum of Rs. 2000/- per year for each brick Mfg. Unit to which water is supplied in addition to existing rate of HP based / metered agricultural tariff.

10.4 Such Agricultural consumers shall have to pay the above charges for a full financial year irrespective of whether they supply water to the brick manufacturing unit for full or part of the Financial Year.



Agricultural consumers shall have to declare their intention for supply of the water to such brick manufacturing units in advance and pay charges accordingly before commencement of the financial year (i.e. in March every year).

11. **RATE: SL**

11.1 **Tariff for Street Light for Local Authorities and Industrial Estates:**

This tariff includes the provision of maintenance, operation and control of the street lighting system.

11.1.1 **ENERGY CHARGES:**

| | |
|--|--------------------|
| For all the units consumed during the month: | 405 Paise per Unit |
|--|--------------------|

11.1.2 **OPTIONAL KVAH CHARGES:**

| | |
|---|--------------------|
| For all the kVAh units consumed during the month: | 305 Paise per Unit |
|---|--------------------|

11.1.3 **Renewal and Replacements of Lamps:**

The consumer shall arrange for renewal, maintenance and replacement of lamp, associated Fixture, connecting wire, disconnecting device, switch including time switch etc. at his cost by person authorised by him in this behalf under Rule-3 of the Indian Electricity Rules, 1956 / Rules issued by CEA under the Electricity Act, 2003.

11.1.4 **Maintenance other than Replacement of Lamps:**

Maintenance of the street lighting conductor provided on pole to connect the street light shall be carried out by Distribution Licensee.

11.2 **Tariff for power supply for street lighting purposes to consumers other than the local authorities and industrial estates:**

11.2.1 **FIXED CHARGES:**

| |
|-------------------------|
| Rs. 30 per kW per month |
|-------------------------|

11.2.2 **ENERGY CHARGES:**

| | |
|---|-------------------|
| For all units consumed during the month | 405 Paise per kWh |
|---|-------------------|

11.2.3 Renewal and Replacement of Lamps:

The consumer shall arrange for renewal, maintenance and replacement of lamp, associated Fixture, connecting wire, disconnecting device, switch including time switch etc. at his cost by person authorised by him in this behalf under Rule-3 of the Indian Electricity Rules, 1956 / Rules issued by CEA under the Electricity Act, 2003.

11.2.4 Maintenance other than Replacement of Lamps:

Maintenance of the street lighting conductor provided on pole to connect the street light shall be carried out by Distribution Licensee.

12. RATE: TMP

This tariff is applicable to services of electricity supply for temporary period at the low voltage. A consumer not taking supply on regular basis under a proper agreement shall be deemed to be taking supply for temporary period.

12.1 FIXED CHARGE

| | |
|-------------------------------|-----------------------|
| Fixed Charge per Installation | Rs. 15 per kW per Day |
|-------------------------------|-----------------------|

12.2 ENERGY CHARGE

| | |
|----------------|--------------------|
| A flat rate of | 465 Paise per Unit |
|----------------|--------------------|

Note: Payment of bills is to be made within seven days from the date of issue of the bill. Supply would be disconnected for non-payment of dues on 24 hours' notice.

13. RATE: LT ELECTRIC VEHICLE (EV) CHARGING STATIONS

This tariff is applicable to consumers who use electricity **exclusively** for Electric Vehicle Charging installations.

Other consumers can use their regular electricity supply for charging electric vehicle under same regular category i.e. RGP, RGP (RURAL), GLP, LTMD, NON-RGP NIGHT, LTMD-NIGHT, etc. as the case may be.

13.1 FIXED CHARGES / MONTH:

| | |
|--------------|-------------------------|
| Fixed Charge | Rs. 25 per installation |
|--------------|-------------------------|

13.2 ENERGY CHARGES: FOR THE ENTIRE MONTHLY CONSUMPTION

| | |
|---------------|--------------------|
| ENERGY CHARGE | 410 Paise per Unit |
|---------------|--------------------|

PART - II

**TARIFFS FOR SUPPLY OF ELECTRICITY AT HIGH TENSION
 (3.3 KV AND ABOVE, 3-PHASE 50 HERTZ), AND EXTRA HIGH TENSION**

The following tariffs are available for supply at high tension for large power services for contract demand not less than 100 kVA

14. RATE: HTP-I

This tariff will be applicable for supply of electricity to HT consumers contracted for 100 kVA and above for regular power supply and requiring the power supply for the purposes not specified in any other HT Categories.

14.1 DEMAND CHARGES:

14.1.1 For billing demand up to contract demand

| | | |
|-----|--|-----------------------------|
| (a) | For first 500 kVA of billing demand | Rs. 150/- per kVA per month |
| (b) | For next 500 kVA of billing demand | Rs. 260/- per kVA per month |
| (c) | For billing demand in excess of 1000 kVA | Rs. 475/- per kVA per month |

14.1.2 For Billing Demand in Excess of Contract Demand

| | |
|---|---------------------------|
| For billing demand in excess over the contract demand | Rs. 555 per kVA per month |
|---|---------------------------|

PLUS

14.2 ENERGY CHARGES

| | | |
|--|---|--------------------|
| For entire consumption during the month | | |
| (a) | Up to 500 kVA of billing demand | 400 Paise per Unit |
| (b) | For billing demand above 500 kVA and up to 2500 kVA | 420 Paise per Unit |
| (c) | For billing demand above 2500 kVA | 430 Paise per Unit |

PLUS

14.3 TIME OF USE CHARGES:



| | |
|--|-------------------|
| For energy consumption during the two peak periods, viz., 0700 Hrs. to 1100 Hrs. and 1800 Hrs. to 2200 Hrs. | |
| (a) For Billing Demand up to 500 kVA | 45 Paise per Unit |
| (b) For Billing Demand above 500 kVA | 85 Paise per Unit |

14.4 BILLING DEMAND:

The billing demand shall be the highest of the following:

- (a) Actual maximum demand established during the month
- (b) Eighty-five percent of the contract demand
- (c) One hundred kVA

14.5 MINIMUM BILLS:

Payment of “demand charges” based on kVA of billing demand.

14.6 POWER FACTOR ADJUSTMENT CHARGES:

14.6.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head “Energy Charges”, arrived at using tariff as per para 14.2 of this schedule, for every 1% drop or part thereof in the average power factor during the month below 90% up to 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 14.2 of this schedule, will be charged.

14.6.2 Power Factor Rebate:

If the power factor of the consumer’s installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 14.2 of this schedule, for every 1% rise or part thereof in the average power factor during the month above 95%.

14.7 MAXIMUM DEMAND AND ITS MEASUREMENT:

The maximum demand in kW or kVA, as the case may be, shall mean an average kW / kVA supplied during consecutive 30/15 minutes or if consumer is having parallel operation with the

grid and has opted for 3 minutes, period of maximum use where such meter with the features of reading the maximum demand in KW/KVA directly, have been provided.

14.8 CONTRACT DEMAND:

The contract demand shall mean the maximum KW/KVA for the supply, of which the supplier undertakes to provide facilities from time to time.

14.9 REBATE FOR SUPPLY AT EHV:

| On Energy charges: | | Rebate @ |
|---------------------------|--|-----------------|
| (a) | If supply is availed at 33/66 kV | 0.5% |
| (b) | If supply is availed at 132 kV and above | 1.0% |

14.10 CONCESSION FOR USE OF ELECTRICITY DURING NIGHT HOURS:

For the consumer eligible for using supply at any time during 24 hours, entire consumption shall be billed at the energy charges specified above. However, the energy consumed during night hours of 10.00 PM to 06.00 AM next morning shall be eligible for concession at the rate of 40 Paise per unit.

14.11 SEASONAL CONSUMERS TAKING HT SUPPLY:

14.11.1 The expression, "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice-candy machines, ginning and pressing factory, oil mill, rice mill, salt industry, sugar factory, khandsari, cold storage plants (including such plants in fishery industry), tapioca industries manufacturing starch, pumping load or irrigation, white coal manufacturers etc.

14.11.2 Any consumer, who desires to be billed for the minimum charges on annual basis shall intimate to that effect in writing at least one month before commencement of billing period about the off-season during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The off-season period at any time shall be a full calendar month/months. The total period of the off-season so declared and observed shall be not less than three calendar months in a calendar year.

14.11.3 The total minimum amount under the head "Demand and Energy Charges" payable by a seasonal consumer satisfying the eligibility criteria under sub-clause 14.11.1 above and complying with provisions stipulated under sub-clause 14.11.2 above shall be Rs. 4550 per annum per kVA of the billing demand.

14.11.4 The billing demand shall be the highest of the following:

- (a) The highest of the actual maximum demand registered during the calendar year.
- (b) Eighty-five percent of the arithmetic average of contract demand during the year.
- (c) One hundred kVA.

14.11.5 Units consumed during the off-season period shall be charged for at the flat rate of 430 Paise per unit.

14.11.6 Electricity bills paid during off-season period shall not be taken into account towards the amount payable against the annual minimum bill. The amount paid by the consumer towards the electricity bills for seasonal period only under the heads “Demand Charges” and “Energy Charges” shall be taken into account while determining the amount payable towards the annual minimum bill.

15. RATE HTP-II

Applicability: This tariff shall be applicable for supply of energy to HT consumers contracting for 100 kVA and above, requiring power supply for Water Works and Sewerage pumping stations run by Local Authorities and GW & SB. GIDC Water Works.

15.1 DEMAND CHARGES:

15.1.1 For billing demand up to contract demand

| | | |
|-----|--|-----------------------------|
| (a) | For first 500 kVA of billing demand | Rs. 115/- per kVA per month |
| (b) | For next 500 kVA of billing demand | Rs. 225/- per kVA per month |
| (c) | For billing demand in excess of 1000 kVA | Rs. 290/- per kVA per month |

15.1.2 For billing demand in excess of contract demand

| | |
|---|---------------------------|
| For billing demand in excess of contract demand | Rs. 360 per kVA per month |
|---|---------------------------|

PLUS

15.2 ENERGY CHARGES:

| | | |
|---|---|--------------------|
| For entire consumption during the month | | |
| (b) | Up to 500 kVA of billing demand | 435 Paise per Unit |
| (c) | For billing demand above 500 kVA and up to 2500 kVA | 455 Paise per Unit |
| (d) | For billing demand above 2500 kVA | 465 Paise per Unit |



PLUS

15.3 TIME OF USE CHARGES:

| | |
|--|-------------------|
| For energy consumption during the two peak periods, viz., 0700 Hrs. to 1100 Hrs. and 1800 Hrs. to 2200 Hrs. | |
| (a) For Billing Demand up to 500 kVA | 45 Paise per Unit |
| (b) For Billing Demand above 500 kVA | 85 Paise per Unit |

- | | | |
|--|---|-------------------------------------|
| <p>15.4 Billing demand</p> <p>15.5 Minimum bill</p> <p>15.6 Maximum demand and its measurement</p> <p>15.7 Contract Demand</p> <p>15.8 Rebate for supply at EHV</p> <p>15.9 Concession for use of electricity during night hours</p> | } | <p>Same as per HTP-I Tariff</p> |
|--|---|-------------------------------------|

15.10 POWER FACTOR ADJUSTMENT CHARGES:

15.10.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head “Energy Charges”, arrived at using tariff as per para 15.2 of this schedule, for every 1% drop or part thereof in the average power factor during the month below 90% up to 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 15.2 of this schedule, will be charged.

15.10.2 Power Factor Rebate:

If the power factor of the consumer’s installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 15.2 of this schedule, for every 1% rise or part thereof in the average power factor during the month above 95%.

16. RATE: HTP-III



This tariff shall be applicable to a consumer taking supply of electricity at high voltage, contracting for not less than 100 kVA for temporary period. A consumer not taking supply on regular basis under a proper agreement shall be deemed to be taking supply for temporary period.

16.1 DEMAND CHARGES:

| | |
|---|--------------------------|
| For billing demand up to contract demand | Rs. 18/- per kVA per day |
| For billing demand in excess of contract demand | Rs. 20/- per kVA per day |

PLUS

16.2 ENERGY CHARGES:

| | |
|---|----------------|
| For all units consumed during the month | 660 Paise/Unit |
|---|----------------|

PLUS

16.3 TIME OF USE CHARGES:

| | |
|---|-------------------|
| Additional charge for energy consumption during two peak periods, viz., 0700 Hrs. to 1100 Hrs. and 1800 Hrs. to 2200 Hrs. | 85 Paise per Unit |
|---|-------------------|

16.4 Billing demand

16.5 Minimum bill

16.6 Maximum demand and its measurement

16.7 Contract Demand

16.8 Rebate for supply at EHV

} Same as per
HTP-I Tariff

16.9 POWER FACTOR ADJUSTMENT CHARGES:

16.9.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges", arrived at using tariff as per para 16.2 of this schedule, for every 1% drop or part thereof in the average power factor during the month below 90% up to 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using tariff as per para 16.2 of this schedule, will be charged.



16.9.2 Power Factor Rebate:

If the power factor of the consumer's installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using tariff as per para 16.2 of this schedule, for every 1% rise or part thereof in the average power factor during the month above 95%.

17 RATE: HTP-IV

This tariff shall be applicable for supply of electricity to HT consumers opting to use electricity exclusively during night hours from 10.00 PM to 06.00 AM next day and contracted for regular power supply of 100 kVA and above.

17.1 DEMAND CHARGES:

1/3rd of the Fixed Charges specified in Rate HTP-I above.

PLUS

17.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For all units consumed during the month | 225 Paise per Unit |
|---|--------------------|

17.3 Billing demand

17.4 Minimum bill

17.5 Maximum demand and its measurement

17.6 Contract Demand

17.7 Rebate for supply at EHV

} Same as per HTP-I Tariff

17.8 POWER FACTOR ADJUSTMENT CHARGES:

17.8.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges", arrived at using tariff as per para 17.2 of this schedule, for every 1% drop or part thereof in the average power factor during the month below 90% up to 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using



tariff as per para 17.2 of this schedule, will be charged.

17.8.2 Power Factor Rebate:

If the power factor of the consumer's installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using tariff as per para 17.2 of this schedule, for every 1% rise or part thereof in the average power factor during the month above 95%.

NOTE:

1. 15% of the contracted demand can be availed beyond the night hours prescribed as per para 16 above.
2. 10% of total units consumed during the billing period can be availed beyond the night hours prescribed as per para 16 above.
3. In case the consumer failed to observe condition no. 1 above during any of the billing month, then demand charge during the relevant billing month shall be billed as per HTP-I category demand charge rates given in para 14.1 of this schedule.
4. In case the consumer failed to observe condition no. 2 above during any of the billing month, then entire energy consumption during the relevant billing month shall be billed as per HTP-I category energy charge rates given in para 14.2 of this schedule.
5. In case the consumer failed to observe above condition no. 1 and 2 both during any of the billing month, then demand charge and entire energy consumption during the relevant billing month shall be billed as per HTP-I category demand charge and energy charge rates given in para 14.1 and 14.2 respectively, of this schedule.
6. This tariff shall be applicable if the consumer so opts to be charged in place of HTP-I tariff by using electricity exclusively during night hours as above.
7. This option can be exercised to shift from HTP-I tariff category to HTP-IV tariff or from HTP-IV tariff category to HTP-I tariff four times in a calendar year by giving not less than 15 days' advance notice in writing before commencement of billing period

18 RATE: HTP- V

HT - Agricultural (for HT Lift Irrigation scheme only)

This tariff shall be applicable for supply of electricity to High Tension Agricultural consumers contracting for 100 kVA and above, requiring power supply for lifting water from surface water

sources such as canal, river and dam, and supplying water directly to the fields of farmers for agricultural irrigation only.

18.1 DEMAND CHARGES:

| |
|---|
| Demand Charges Rs. 25 per kVA per month |
|---|

PLUS

18.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For all units consumed during the month | 150 Paise per Unit |
|---|--------------------|

18.3 Billing demand

18.4 Minimum bill

18.5 Maximum demand and its measurement

18.6 Contract Demand

18.7 Rebate for supply at EHV

} Same as per
HTP-I Tariff

18.8 POWER FACTOR ADJUSTMENT CHARGES:

18.8.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges", arrived at using tariff as per para 18.2 of this schedule, for every 1% drop or part thereof in the average power factor during the month below 90% up to 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using tariff as per para 18.2 of this schedule, will be charged.

18.8.2 Power Factor Rebate:

If the power factor of the consumer's installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head "Energy Charges", arrived at using tariff as per para 18.2 of this schedule, for every 1% rise or part thereof in the average



power factor during the month above 95%.

19 RATE: RAILWAY TRACTION

This tariff is applicable for power supply to Railway Traction at 132 kV/66 kV.

19.1 DEMAND CHARGES:

| | | |
|-----|---|---------------------------|
| (a) | For billing demand up to the contract demand | Rs. 180 per kVA per month |
| (b) | For billing demand in excess of contract demand | Rs. 425 per kVA per month |

NOTE: In case of the load transfer for traction supply due to non-availability of power supply at preceding or succeeding point of supply or maintenance at Discom's level, excess demand over the contract demand shall be charged at normal rate at appropriate point of supply.

Normal Demand Charges will also apply in case of bunching of trains. However, Discoms shall charge excess demand charges while raising the bills and Railways have to give convincing details and documentary proof of bunching of trains if they want to be charged at the normal demand charges. If satisfactory proof of bunching of trains is provided, Discom shall consider that occasion for normal demand charges, otherwise excess demand charges will be applicable specified as above at 19.1 (b).

PLUS

19.2 ENERGY CHARGES:

| | |
|---|--------------------|
| For all units consumed during the month | 500 Paise per Unit |
|---|--------------------|

| | | |
|--|---|-------------------------------------|
| <p>19.3 Billing demand</p> <p>19.4 Minimum bill</p> <p>19.5 Maximum demand and its measurement</p> <p>19.6 Contract Demand</p> <p>19.7 Rebate for supply at EHV</p> | } | <p>Same as per HTP-I Tariff</p> |
|--|---|-------------------------------------|

19.8 POWER FACTOR ADJUSTMENT CHARGES:

19.8.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges", arrived at using tariff as per para 19.2 of this schedule, for every 1% drop or part thereof in the



average power factor during the month below 90% up to 85%.

- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 19.2 of this schedule, will be charged.

19.8.2 Power Factor Rebate:

If the power factor of the consumer’s installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head “Energy Charges”, arrived at using tariff as per para 19.2 of this schedule, for every 1% rise or part thereof in the average power factor during the month above 95%.

20 RATE: HT ELECTRIC VEHICLE (EV) CHARGING STATIONS

This tariff is applicable to consumers who use electricity **exclusively** for Electric Vehicle Charging installations.

Other consumers can use their regular electricity supply for charging electric vehicle under same regular category i.e. HTP-I, HTP-II, HTP-III, HTP-IV, HTP-V, RAILWAY TRACTION as the case may be.

20.1 DEMAND CHARGES:

| | |
|---|----------------------------|
| For billing demand up to contract demand | Rs. 25/- per kVA per Month |
| For billing demand in excess of contract demand | Rs. 50/- per kVA per Month |

PLUS

20.2 ENERGY CHARGES: FOR THE TOTAL MONTHLY CONSUMPTION

| | |
|---------------|--------------------|
| ENERGY CHARGE | 400 Paise per Unit |
|---------------|--------------------|

20.3 BILLING DEMAND:

The billing demand shall be the highest of the following:

- (a) Actual maximum demand established during the month
- (b) Eighty-five percent of the contract demand



(c) One hundred kVA

