GUJARAT ELECTRICITY REGULATORY COMMISSION



Tariff Order

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

For

Gujarat Energy Transmission Corporation Limited (GETCO)

Case No. 1757 of 2018 24th April, 2019

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GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)

GANDHINAGAR

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Abbreviations

A&G	Administrative and General	
APR	Annual Performance Review	
ARR	Aggregate Revenue Requirement	
ATC	Annual Transmission Charges payable by long-term user or	
7110	medium-term user of the transmission system	
CAPEX	Capital Expenditure	
CC	Capacity Contracted in MW	
CEA	Central Electricity Authority	
CERC	Central Electricity Regulatory Commission	
CIRP	Corporate Insolvency Resolution Process	
Ckt-Km	Circuit Kilometer	
CPP	Captive Power Plant	
DGVCL	Dakshin Gujarat Vij Company Limited	
ESIL	Esssar Steel India Limited	
FY	Financial Year	
GERC	Gujarat Electricity Regulatory Commission	
GETCO	Gujarat Energy Transmission Corporation Limited	
GFA	Gross Fixed Assets	
GSECL	Gross Fixed Assets Gujarat State Electricity Corporation Limited	
GUVNL	Gujarat Urja Vikas Nigam Limited	
HVDC	High Voltage Direct Current	
IBC	Insolvency and Bankruptcy Code, 2016	
Ind AS	Indian Accounting Standards	
KV	Kilo Volt	
KVA		
	Kilo Volt Ampere	
kVAh	Kilo Volt Ampere Hour	
kVArh	Kilo Volt Ampere Reactive Hour	
KWh	Kilo Watt Hour	
LILO	Loop In Loop Out	
MAT Rate	Minimum Alternate Tax Rate	
MCA	Ministry of Corporate Affairs	
MCLR	Marginal Cost of Funds based Lending Rate	
MGVCL	Madhya Gujarat Vij Company Limited	
MU	Million Units	
MVA	Mega Volt Ampere	
MW	Mega Watt	
MYT	Multi Year Tariff	
O&M	Operations & Maintenance	
OPGW	Optical Ground Wire	
PGCIL	Power Grid Corporation of India Limited	
PGVCL	Paschim Gujarat Vij Company Limited	
PLR	Prime Lending Rate	
RE	Revised Estimates	
R&M	Repairs and Maintenance	
ROE	Return on Equity	
RoW	Right of Way	
SBAR	State Bank Advance Rate	
SCC	Sum of Capacities contracted in MW by all long-term users	
01.00	and medium – term users of the transmission system	
SLDC	State Load Despatch Centre	
STOA	Short-Term Open Access	
TC (Rs./kWh)	Transmission Charges payable by the short-term user	



	including collective transactions through power exchanges
TO	Tariff Order
UGVCL	Uttar Gujarat Vij Company Limited
ULDC	Unified Load Desptach Centre
WIP	Work in Progress
Wt. Av.	Weighted Average



Before the Gujarat Electricity Regulatory Commission at Gandhinagar

Case No. 1757 of 2018

Date of the Order 24th April, 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

Gujarat Energy Transmission Corporation Limited (hereinafter referred to as "GETCO" or the "Petitioner") has on 29th November, 2018 filed the present 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 and determination of tariff for FY 2019-20.

Gujarat Electricity Regulatory Commission notified the GERC (Multi-Year Tariff) Regulations, 2016 on 29th March, 2016 which is applicable for determination of tariff in all cases covered under the Regulations from 1st April, 2016 onwards. Regulation 17.2 (b) of the GERC (Multi-Year Tariff) Regulations, 2016 provides for submission of detailed application comprising of truing up for FY 2017-18, 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 the GERC (Multi-Year Tariff) Regulations, 2016 and amendments thereof from time to time.

After technical validation of the petition, it was registered on 4th 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 Gujarat Energy Transmission Corporation Limited (GETCO)

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 as listed below:

- Gujarat State Electricity Corporation Limited (GSECL) A Generation Company
- Gujarat Energy Transmission Corporation Limited (GETCO) A Transmission Company



Four Distribution Companies, namely:

- Dakshin Gujarat Vij Company Limited (DGVCL)
- Madhya Gujarat Vij Company Limited (MGVCL)
- Uttar Gujarat Vij Company Limited (UGVCL)
- Paschim Gujarat Vij Company Limited (PGVCL); and
- Gujarat Urja Vikas Nigam Limited (GUVNL) A Holding Company of above named six subsidiary companies, responsible for bulk purchase of electricity from various sources and bulk supply to Distribution Companies.

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, containing the value of assets and liabilities, which stand transferred from the erstwhile Gujarat Electricity Board to the transferee companies, including Gujarat Energy Transmission Corporation Limited (GETCO). 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 Order for tariff of FY 2017-18

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 FY 2017-18 on 29th November 2016. The petition was registered on 3rd December, 2016 (Case No. 1620 of 2016). The Commission vide order dated 31st March, 2017 approved the Truing up for 2015-16, Final ARR for 2016-17, 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 of FY 2016-17 and Determination of Tariff for FY 2018-19

The Petitioner filed its petition for Truing up for FY 2016-17 and determination of tariff FY 2018-19 on 30th November, 2017. The petition was registered on 11th December, 2017 (under Case No. 1692 of 2017). The Commission vide order dated 31st March,



2018 approved the truing up for FY 2016-17 and determined the tariff for FY 2018-19.

1.5 Background of the present petition

The Commission has notified the GERC (MYT) Regulations, 2016 for the control period FY 2016-17 to FY 2020-21. 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-à-vis the approved forecast and categorization of variation in performance as those caused by factors within the control of the applicant (controllable factors) and those caused by factors beyond the control of the applicant (uncontrollable factors).

Regulation 16.2 (vi) of the GERC (MYT) Regulations, 2016 provides for annual determination of tariff for the Generating Company, Transmission Licensee, SLDC Distribution Wire 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 Registration of the Current Petition and Public Hearing Process

The Petitioner submitted the current Petition for Truing up of FY 2017-18 and Determination of Tariff for FY 2019-20 on 29th November, 2018. After technical validation of the petition, it was registered on 4th December, 2018 (Case No 1757 of 2018) and as provided under Regulation 29.1 of the GERC (MYT) Regulations, 2016, the Commission has proceeded with the tariff order.

In accordance with Section 64 of the Electricity Act, 2003, GETCO was directed to publish its application in the newspapers to ensure public participation.

The Public Notice, inviting objections / suggestions from its stakeholders on the truing up and tariff determination petition filed by it, was published in the following newspapers:



Table 1.1:List of Newspapers

Sr. No.	Name of the Newspaper	Language	Date of publication
1.	The Indian Express	English	09.12.2018
2.	Divya Bhaskar	Gujarati	09.12.2018

The Petitioner also placed the public notice and the petition on its website (www.getcogujarat.com), for inviting objections and suggestions. The interested parties / stakeholders were asked to file their objections / suggestions on the petition on or before 9th January, 2019.

The Commission also placed the petition and additional details received from the Petitioner on its website (www.gercin.org) for information and study for all the stakeholders.

The Commission received objections / suggestions from consumers / consumer organizations as shown in Table below. The Commission examined the objections / suggestions received from the stakeholders and fixed the date for public hearing for the petition on 6th 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 Commission also issued a notice for public hearing in the following newspapers in order to solicit wider participation by the stakeholders:

Table 1.2: List of Newspapers

Sr. 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 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:



Table 1.3: List of Stakeholders

Sr. No.	Name of Stakeholders	Written Submission	Present on 06.02.2019	Oral Submission
1	Laghu Udyog Bharti-Gujarat	Yes	Yes	Yes
2	Utility Users' Welfare Association	Yes	Yes	Yes
3	Torrent Power Limited	Yes	No	No
4	Shri R. G. Tillan	No	Yes	Yes

Details of the issues raised by the objectors in their submissions on the petition, along with the response of GETCO and the Commission's views on the response, are given in Chapter 3

1.7 Contents of the Order

The order is divided into **Six Chapters** as under:

- 1. The **First Chapter** provides the background of the Petitioner, the petition and details of the public hearing process and the approach adopted for this order.
- 2. The **Second Chapter** outlines the summary of GETCO's petition.
- 3. The **Third Chapter** provides a brief account of the public hearing process, including the objections raised by various stakeholders, GETCO'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 the determination of tariff for FY 2019-20.
- 6. The **Sixth Chapter** deals with the compliance of directives.

1.8 Approach of this Order

The GERC (MYT) Regulations, 2016 provide for Truing up of the previous year and determination of Tariff for the ensuing year.

GETCO has approached the Commission with the present petition for Truing up of FY 2017-18 and determination of tariff for the FY 2019-20.



The Commission has undertaken Truing up for FY 2017-18, based on the submissions of the Petitioner. The Commission has undertaken the computation of gains 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, 2016.

The Commission has undertaken Determination of Tariff for FY 2019-20 as per the GERC (MYT) Regulations, 2016 and its amendments as the base.



2 Summary of GETCO petition for True-up FY 2017-18 and Determination of Tariff for FY 2019-20

2.1 Introduction

This Chapter highlights the summary of the Petition for True-up for FY 2017-18 and Determination of Tariff for FY 2019-20.

2.2 True up for FY 2017-18

Gujarat Energy Transmission Corporation Limited (GETCO) submitted the Petition on 29th November, 2018 seeking approval of truing up of ARR of FY 2017-18. GETCO has worked out its Aggregate Revenue Requirement (ARR) for FY 2019-20 as a part of the True Up for FY 2017-18. GETCO 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 final ARR for FY 2017-18 in MYT Order dated 31st March, 2017 is presented in the Table below.

Table 2.1: True up for FY 2017-18

(Rs. Crore)

Sr. No.	Particulars	Approved as per the MYT Order	Actual /Normative	Deviation
1	Operation & Maintenance Expenses	1,410.70	1,332.99	77.71
2	Depreciation	1,028.56	927.70	100.86
3	Interest & Finance Charges	579.13	486.84	92.29
4	Interest on Working Capital	70.35	63.89	6.46
5	Return on Equity	768.70	743.11	25.59
6	Exceptional Items	1	365.77	(365.77)
7	Total Fixed Costs	3,857.44	3,920.30	(62.86)
8	Add: Provision for Tax	64.62	123.37	(58.75)
9	Total Transmission Charges	3,922.06	4,043.67	(121.61)
10	Less: Expenses Capitalized	194.13	220.18	(26.05)
11	Less: Non-Tariff Income	331.37	277.73	53.64



Sr. No.	Particulars	Approved as per the MYT Order	Actual /Normative	Deviation
12	Add: Incentive for target availability	-	34.92	(34.92)
13	Aggregate Revenue Requirement	3,396.55	3,580.68	(184.12)

Summary of the Gain/(Loss) allocation to Controllable & Uncontrollable factors is outlined in the Table below:

Table 2.2: Summary of Controllable & Uncontrollable Factors

(Rs. Crore)

Sr. No.	Particulars	Approved as per the MYT Order	Actual /Normative	Gain/(Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
1	Operation & Maintenance Expenses	1,410.70	1,332.99	151.11	(73.40)
2	Depreciation	1,028.56	927.70		100.86
3	Interest & Finance Charges	579.13	486.84		92.29
4	Interest on Working Capital	70.35	63.89		6.46
5	Return on Equity	768.70	743.11		25.59
6	Exceptional Items	-	365.77		(365.77)
7	ARR (1 to 6)	3,857.44	3,920.30	151.11	(213.97)
8	Add: Provision for Tax	64.62	123.37		(58.75)
9	Less: Non-Tariff Income	331.37	277.73		53.64
10	Add: Incentive for target availability	-	34.92		(34.92)
11	Less: Expenses Capitalized	194.13	220.18		(26.05)
12	Total ARR	3,396.55	3,580.68	151.11	(335.22)
13	Net Gains / Losses on account of Controllable/ Uncontrollable Factors			151.11	(335.22)
14	Gains on account of Controllable Factors to be passed on to Consumers (1/3 x Sr. No. 13)			50.37	
15	Losses on account of Uncontrollable Factors to be passed on to Consumers				(335.22)

Based on the above sharing of gain and loss the Petitioner has claimed the following gap for FY 2017-18.



Table 2.3: Gap for 2017-18

(Rs. Crore)

Sr. No.	Particulars	Amount
1	Gain / (Loss) on account of Uncontrollable Factors to be passed on to Beneficiaries for FY 2017-18	(335.22)
2	Gain / (Loss) on account of Controllable Factors to be passed on to Beneficiaries (1/3rd of Total Gain / (Loss)) for FY 2017-18	50.37
3	Total Gain/ (Loss) of the true up of FY 2017-18 to be addressed in the determination of tariff for FY 2019-20	(284.86)

2.3 Tariff for FY 2019-20

In accordance with provisions of the GERC (MYT) Regulations, 2016, ARR for FY 2019-20 as approved in the Order dated 31st March 2017 is as follows:

Table 2.4: ARR for 2019-20

(Rs. Crore)

Sr. No.	Particulars	2019-20
1	Operation & Maintenance Expenses	1,709.77
2	Depreciation	1,242.10
3	Interest & Finance Charges	610.40
4	Interest on Working Capital	85.28
5	Return on Equity	928.19
6	Total Fixed Costs	4,575.73
7	Less: Expenses Capitalized	194.13
8	Add: Provision for Tax	64.62
9	Total Transmission Charges	4,446.22
10	Less: Non-Tariff Income	331.37
11	Aggregate Revenue Requirement	4,114.85

GETCO has calculated the Transmission tariff for FY 2019-20 after applying the gap of FY 2017-18 as follows:



Table 2.5: Transmission Tariff for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	2019-20
1	Approved Aggregate Revenue Requirement for FY 2019-20 vide MYT Order dated 31st March, 2017	4,114.85
2	Add / (Less): Revenue (Gap) / Surplus for FY 2017-18	(284.86)
3	ARR after considering Gap of true-up for FY 2017-18 (1 - 2)	4,399.71
4	Total MW allocation	26,300.49
5	Transmission Tariff (Rs./MW/day)	4,583.18

Further, GETCO has proposed to allow recovery of transmission charges @ 39.70 Ps/kwh for all types of short-term transactions.

2.4 Request of GETCO

- 1. To admit this Petition for True Up of FY 2017-18 and Determination of Tariff for FY 2019-20.
- 2. To approve the gains/losses for the True Up for FY 2017-18 and allow sharing of such gains/losses as prescribed in the GERC (MYT) Regulations, 2016.
- 3. To approve incentive on availability for FY 2017-18.
- 4. To approve Transmission Tariff for FY 2019-20.
- 5. To grant any other relief as the Commission may consider appropriate.
- 6. To allow further submissions, addition and alteration to this Petition as may be necessary from time to time.
- 7. 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 GETCO and Commission's view

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

In response to the public notice inviting objections / suggestions on the petition filed by GETCO for Truing up of FY 2017-18 and determination of ARR for FY 2019-20 under the GERC (MYT) Regulations, 2016 from the stakeholders, a number of stakeholders filed their objections / suggestions in writing. Some of these stakeholders participated in the public hearing also.

The Commission has considered the objections/ suggestions relevant to the present petition and the response of GETCO on the same.

These objections/ suggestions, the response from the Petitioner and the views of the Commission are dealt with hereunder:

3.2 Issue wise submissions and replies

Issue No. 1: Transaction entries to be modified

In light of the Petitioner having cash and bank balance to the tune of Rs. 105 Crore as per Cash-flow Statement for year ended 31.03.2018, the sum of Rs. 63.89 Cr. for 'Interest on Working Capital' shall not be considered in Annual financial report and ARR True up of 2017-18. The Commission is requested to take action on all concerned. As the DISCOMs are controlled by GUVNL, this is simply matter of Transaction entries as per note 66 B of Annual financial report of GETCO.

Response of GETCO

Every Company is required the minimum level of working capital for meeting the day to day operational expenses of the company. The above business requirement is also acknowledged by the Commission and it has made the provisions of allowability of Interest on Working Capital in its MYT Regulations, 2016.



Cash and cash equivalent as shown in annual report of FY 2017-18 comprises Rs. 0.03 Crore of "Cash on hand", Rs. 5.15 Crore of "Balance with banks" and Rs. 100.58 Crore "Other Bank Balances". Further, Other Bank Balances pertains to the amount of unutilized grant received from "Ministry of New and Renewable Energy" for the Green Energy Corridor project with the specific condition to utilize the granted fund only in the approved projects and accordingly the same is kept as Interest bearing account in the form of Fixed Deposit. The same is also appropriately disclosed in Note No. 11 of Financial Statement of FY 2017-18. Thus, there is effective Cash and Cash Equivalents of only Rs. 5.18 Crore as on 31.03.2018 as against Cash and Cash Equivalents of Rs. 6.09 Crore as on 31.03.2017. In this matter, it is to highlight that this is the balance of cash and cash equivalents as on a particular date and that too of the 64 locations of GETCO. The argument pointing out excess liquidity is out of place as this amount of Rs. 100.58 Crore is not available for general purpose but is kept in the form of FD for specific purpose/ specific project under construction/specific proposed project with, specific direction from MNRE, Gol.

Commission' view

Objection raised by the Objector and response of the Petitioner have been noted. The Commission undertakes the Truing up exercise on the basis of the GERC MYT Regulations, 2016 and (Gap)/Surplus is determined based on gain/loss on account of controllable and uncontrollable parameters by comparing actual performance of GETCO during FY 2017-18 with that of approved in the MYT Order dated 31.03.2017. Accordingly, the Interest on Working Capital has to be dealt with as per Regulation 40 of the GERC MYT Regulations, 2016. Moreover, the Petitioner has also clarified that Rs. 100.58 Crore out of Rs. 105.76 Crore of Cash and cash equivalents is towards grant received from MNRE, Gol for Green Energy Corridor Projects with a condition to utilize it in the approved project and is not available for general purpose.

Issue No. 2: Per Unit Cost of transmission charges to be Trued up

In DISCOMs' ARR Proposal in Table 4 and para 2.4.2, the equivalent per Unit cost of transmission is given. The per unit cost of transmission charges is not trued up for the year 2017-18 by DISCOMs.

Response of GETCO



At the beginning of the year, GERC approves the Annual Revenue Requirement of GETCO based on total allocated capacity. Further, the said ARR is being recovered by GETCO from LTOA consumers based on the total contracted capacity, from MTOA consumers on per MW per day basis and from Short Term Consumers, by way of transmission charges on per kwh basis. Further, true up of the said ARR is being done by the Commission from time to time.

Commission's view

The Commission has noted the objection raised by the Objector and response of the Petitioner. The Commission has determined the Aggregate Revenue Requirement of Petitioner as per the MYT Regulations, 2016 for the control period FY 2016-17 to 2020-21 and accordingly, the Petitioner recovers this ARR from long-term and medium-term users of the transmission system. The Commission also undertakes the Truing-up exercise of ARR on the basis of the GERC (MYT) Regulations, 2016 and any gap/surplus in ARR gets factored/captured in the ARR of ensuing years. The Commission undertakes such exercise for distribution licensees also. Hence, truing up of per unit transmission charges is not necessary.

Issue No. 3: GUVNL subsidiaries need to prepare the accounts as per MYT Regulations

In the annual financial reports and notes the word Non-tariff income is not used whereas in the ARR and MYT Regulations the word Non-tariff income is used. The Objector fails to understand why GUVNL subsidiaries are not preparing the accounts as per the MYT Regulations. The non-tariff income as per Regulation 69.2 of the MYT Regulations, 2016 is not shown, wherein the Current Assets has to be considered. Sum as per notes 9,10,11,12,13,14 and 15 of accounts amounting to Rs. 342.05 Cr. GETCO is required to take these figures in ARR true up in line with the MYT Regulations, 2016.

Response of GETCO

The books of accounts are prepared in accordance with Indian Accounting Standard (Ind AS), under the historical cost convention on the accrual basis. Except for certain financial instruments (Like investment) which are measured at fair values, the provisions of the Companies Act, 2013 (to the extent notified) except in so far as the



said provisions are inconsistent with the provision of the Electricity Act, 2003. The Ind AS are prescribed under Section 133 of the Act read with Rule 3 of the Companies (Indian Accounting Standards) Rules, 2015 and relevant amendment rules issued thereafter. The nomenclature used in the financial statements viz. Statement of Profit & Loss, Balance sheet, Statement of change in Equity and notes forming part of the financial statements, are as per the above requirement Schedule III of the Companies Act, 2013, whereas True up and determination of tariff is based on the GERC (MYT) Regulations, 2016. The nomenclature and methodology for determination of Annual Revenue Requirement is defined and accordingly the tariff petition is filed by GETCO. GETCO has complied with all the specified statutory as well as regulatory requirements while preparation of both financial statements as well as filing of tariff petition. The note number 9,10,11,17,13,14 and 15 as specified are related with Balance sheet items and the same is appropriately disclosed as per the GERC MYT Regulations, 2016.

Commission's view

The Commission has noted the objection raised and response of the Petitioner. The Commission has considered Non-tariff Income in accordance with Regulation 69 of the GERC (MYT) Regulations, 2016 based on the figures of audited Annual Accounts.

Issue No. 4: PGCIL charges are paid by GETCO or GUVNL?

Throughout the ARR, we do not find who is paying PGCIL charges; GETCO or GUVNL Whether Transmission charges to GETCO is paid by PGVCL for power supply to GUVNL

Response of GETCO

PGCIL charges are being paid by its beneficiaries and GETCO is not its beneficiary.

Commission's view

The Commission has noted the response of the Petitioner. As DISCOMs are the beneficiaries of PGCIL, GUVNL is paying these charges on behalf of DISCOMs.

Issue No. 5: ARR needs to be revised



GETCO is receiving following sums:

- a. Pro- rata charges of consumers
- b. Line cost from consumers as consumer contribution
- c. Government Grants for capital works.
- d. Expenses capitalized.
- e. Sum due of incomplete works. This sum available is not adjusted against calculation of finance charges.

In light of above ARR should be revised.

Response of GETCO

Pro-rata charges from consumers, Line cost from consumers as consumer contribution and Government Grants for capital works are accounted as Deferred Government Grant, Subsidies and Consumer Contributions and the same are appropriately accounted in Note 19 as a Balance sheet item. The addition during the year is also appropriately shown in Table No.7 Funding of Capex point No. 3, Consumer Contribution/Grants for Rs.406.20 Crores. Annually the same is recognized in proportion to the depreciation of the assets created out of this consumer contribution as per the requirement of Ind AS. The income so transferred is also appropriately disclosed at Sr. No. 6 of Table: 29 on Page No. 24 i.e. Breakup of Non-Tariff Income of the petition as per the MYT Regulation 2016. Further, Expenses capitalized is an expenditure attributable to the projects which are under construction and hence the same is to be capitalized as per the requirement of Ind AS. The same is reduced from Annual Revenue Requirement in Table: 35 of ARR for FY 2019-20 as per the MYT Regulations, 2016.

Sum due of incomplete works i.e. Capital work in progress is a balance sheet item. The difference of opening and closing CWIP and Fixed Assets are the capex for the years and the same capex is shown in Table: 7, Funding of Capex of the petition. This is as per the requirement of the GERC (MYT) Regulations, 2016 and there is nothing opaque in GETCO submission.

Commission's view

The Commission has noted that clarification given by the Petitioner is selfexplanatory. The receipts to GETCO towards various accounts as pointed out by the



Objector gets factored into Truing-up exercise as per the GERC (MYT) Regulations, 2016.

Issue No. 6: Higher Projections for ARR of 2019-20

ARR for FY 2019-20 Table 35 of expenses. Overall there is a rise of 25% in expenses. While going through 2017-18 approved ARR and Trued up ARR there is decrease in expenses incurred. Barring exceptional item of write off of Essar Bad Debts of Rs. 365.77 Crore, there is a gain of Rs. 181.65 Crore. GETCO is purposely projecting high ARR and then every year they are asking for high Tariff. But in fact, there is always a gain, but only one third of gain is taken in to consideration, in name of controllable factors. For example, in trued up ARR for year 2017-18, from gain of Rs. 181.65 Crore, only Rs. 50.37 Crore were passed in ARR. The Commission is requested to stop this loot by GUVNL companies who are taking advantages of MYT Regulations, simply by first projecting unnatural high projections and then in true up in name of increased efficiency they save money as controllable factors and keep the two third of excess collected revenue to themselves. The objector requests the Commission to revise estimates of sanctioned projections for year 2019-20 and for year 2020-21, based on projections and trued up figures for year 2018-18. Further no justification of exceptionally high capital expenditure incurred was given.

Response of GETCO

During filing of MYT Petition, GETCO has proposed capital expenditure for the next five years i.e. FY 2016-17 to FY 2070-21 based on the past trend as well as new load envisaged for future. Based on the capitalization considered for each year, O&M expenses, depreciation, interest on loan, return on equity and interest on working were worked out as per MYT Regulations, 2016. Accordingly, Aggregate Revenue Requirement for the MYT period i.e. FY 2016-17 lo FY 2020-21 was submitted. GETCO would like to submit that it has incurred capital expenditure of Rs. 2914.38 Crore as against approval of Rs. 2598.42 Crore during FY 2017-18 and hence there is no case of over estimating expenditure during MYT Petition. It is also required to note here that if there is deviation of the outlay as against the budgeted/approved expenditure then the Commission is adjusting the same at the time of truing up petition.

Commission's view



The expenses are approved based on the audited annual accounts and after exercising prudence checks. The projections are approved based on the past trend and expected future growth.

Issue No. 7: Non-maintainability of petition

The Petition is not maintainable as it is totally in violation of preamble and principles enumerated in Section 61, 62, 64 and 86 of Electricity Act, 2003 read with MYT Regulations 2016. Section 61(b) contemplates that the Generation, transmission, distribution and supply of electricity are to be conducted on commercial principles, however, the Petitioner GETCO and SLDC are not conducting transmission and scheduling business on commercial principle. Section 61(c) contemplates the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investment, however, reckless investment made in creating the sub-stations and not investing in the efficient transmission lines to reduce the transmission losses is violation of efficiency, good performance and optimum investment. Section 61(d) contemplates safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner. However, the consumers' interest is not being protected and consumers are being exploited by forcing them to pay capacity charges for inefficient transmission lines, useless investment without any analysis of benefit to consumers. Section 61(e) contemplates that the generation business is to be conducted on the principles rewarding efficiency in performance, however, the transmission business is totally in inverse proportion and the inefficiency, non-availability of transmission facilities is being rewarded which is against the preamble of the Electricity Act, 2003. Section 61(f) contemplates that the tariff will be determined on multi-year tariff principles, however, the petition is against the MYT principles in view of the fact that investment in transmission system is increasing every year and cost of transmission is also increasing every year burdening the consumers. In spite of such high investment, the Open Access consumers are not able to get the cheaper power through GETCO lines.

Response of GETCO

GETCO develops most of the transmission assets at 66 KV level as per the requirement of DISCOMs based on their assessment of increase in load growth. Such transmission network expansion in 66 KV network is very dynamic and



GETCO/ DISCOMs have noted vast changes in power supply system which has become reliable. One should note that 66 KV system is the backbone of Gujarat network and its development has led to full utilization of upstream 400 KV & 220 KV network and simultaneously resulted in reduction of transmission losses. Such network development is based on the need and strengthening of downstream network, which is in fact more important to reach the consumer and industries as long as we have strong upstream network. Further to state that query related to power generation is not subject matter of GETCO Petition. Further to clarify GETCO develop transmission network for its long-term users and at no point GETCO system is not available for long term users. Other open access such as MTOA/ STOA is granted based on availability of margin after LTOA. Hence the application not granted open access is only on account of such margin not being available.

Commission's view

The Commission has noted the objection of the Objector and the reply of the Petitioner. The Commission, while truing up of FY 2017-18 and determination of tariff for FY 2019-20, has adhered to the provisions of National Tariff Policy 2016, the Electricity Act, 2003 and the GERC (MYT) Regulations, 2016 and accordingly carried out exercise of truing up of FY 2017-18 and determination of tariff for FY 2019-20, after careful consideration of the submissions made by Petitioner in the petition and additional details sought by the Commission and objections raised by the stakeholders. Various financial parameters have also been approved in accordance with the provisions of the GERC (MYT) Regulations, 2016.

Issue No. 8: Allowance of utilizing transmission system without PPAs

GETCO is allowing and utilizing its transmission lines for the generators whose PPAs are not approved which is very bad in law. It proves that either there is no importance of Regulatory process or have captured the regulatory process. (Adani Wind).

Response of GETCO

The contention raised by the Objector is related to procurement of power and not transmission related business.

Commission's view



The response of the Petitioner is self-explanatory.

Issue No.9: Failure of GETCO to collect the necessary charges

GETCO and SLDC both are in collusion with some corporates like Essar, Reliance where lots of amount is outstanding as cross subsidy charges and POC charges. GETCO and SLDC have failed to initiate timely action against such giants for recovery of outstanding and have provided the facilities to them to shift from STU to CTU by providing false certificates/information. GETCO/SLDC/DISCOMs are very strict in case of normal consumers for recovery of their dues but for the big corporates they are very liberal and acting against all provisions of the Electricity Act, 2003, Regulations and Rules made thereunder. It is found that GETCO has not been successful in getting POC charges and cross subsidy, as the private generators are asking for waiver of these charges particularly Essar, Reliance. If such charges are collected, the tariff can be reduced to that extent. GETCO has not mentioned the loading capacity at the peak hours. There are number of open access consumers complaining for non-availability GETCO network and are moving applications to the Commission. This is hurdles in creating competition in the electricity sector. GETCO has at para 3.22.4 (page No.24) mentioned that Miscellaneous receipts includes other income like pro rata charges, reactive energy charges, O&M charges for the dedicated lines and supervision charges of deposit work as approved by Commission. The Commission has not approved any such type of charges which GETCO is charging as registration charges. The Circular No. 9 of 2005 is not applicable. The farmers are required to pay only material charges for shifting and not the supervisory charges, because it is not approved by the Commission. The case of GETCO is for reduction in tariff as the ESSAR uncovered dues cannot be passed on to the consumers as it is not approved by the Commission.

Response of GETCO

GETCO takes all the possible measures of payment security such as letter of credit, bank guarantee etc. In case of any default, GETCO takes all possible steps for recovery of such outstanding amount. Further, GETCO has mentioned M/s Essar Steel Limited has already gone in NCLT. Further, the original matter of Transmission Charges is before the Hon'ble Supreme Court for adjudication. Parallel Operation Charges (POC) is collected as per the GERC Order dated 01.06.2011. There are several POC related petitions under adjudication before the Commission and other



higher forums where the CPPs have demanded refund of the POC already collected. Essar Steel and Essar Oil have also filed petition for refund of the POC collected from them by DGVCL & PGVCL respectively. Further, the Cross-Subsidy Charges are not collected by GETCO. GETCO develops transmission network for its long-term users and at no point GETCO system is not available for long term users' Other Open Access such as MTOA/STOA is granted based on availability of margin after LTOA. Hence the application of not granted open access is only on account of such margin not being available.

Commission's view

The objections of the Objector and the response of the Petitioner thereon is selfexplanatory. As far as the dues of Essar Steel is concerned, the Commission has already dealt with it in Chapter 4 of this Order.

Issue No.10: Outstanding amount/dues not specified

There is no mention in either Annual Report or in the truing up or in ARR petition about such outstanding amount from such consumers. The Commission is kindly requested to deduct such amount from its ARR as other embedded consumers are not to be burdened with high tariff for which GETCO/SLDC/DISCOMs/GUVNL administration is responsible.

Response of GETCO

GETCO in its annual account have stated the amount receivable from Sundry debtors in Note No. 9 of notes forming part of the financial statement of annual account of FY 2017-18 as per the presentation/disclosure requirement of Schedule III of the Companies Act, 2013. Further, the same is disclosed every year since the commercial operation of the Company. It is also not out of place to mention that the company in Note No. 9 - Trade Receivables has shown the age of the receivables as less than 6 months, more than 6 months but less than 1 year and more than 1 year in the Annual Accounts.

Commission's view

The Petitioner has made the required disclosure in the audited Annual Accounts as per the Companies Act, 2013. If this was note done, the Statutory Auditors who are



appointed by the C&AG and also C&AG who conducts supplementary audit of accounts would have qualified the same. There is no such qualification about absence of disclosure in their Audit Reports and Certificate.

Issue No.11: Submission of Availability Certificate

The Petitioner has not submitted the certificate of availability on the letter head of SLDC in the format shown at Appendix-I in the MYT Regulations. In the absence of such certificate from SLDC on its letter head, the petition is not complete and is required to be kept in abeyance till compliance of the certificate.

Response of GETCO

The transmission system availability certificate duly certified by SLDC has already been submitted to the Commission.

Commission's view

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

Issue No.12: No quantitative information in Accounting Statement

The Accounting Statement is not indicating the Quantitative Information regarding the transmission of energy transmitted, and charges collected accordingly for reconciliation of the revenue. In this respect the petition is lacking in the information and necessary data and therefore is not admissible till the compliance of the same.

Response of GETCO

The books of accounts are prepared in accordance with Indian Accounting Standard (Ind AS) under the historical cost convention on the accrual basis. Except for certain financial instruments (like Investment) which are measured at fair values the provisions of the Companies Act, 2013 except in so far as the said provisions are inconsistent with the provision of the Electricity Act, 2003. The Ind AS are prescribed under Section 133 of the Act read with Rule 3 of the Companies (Indian Accounting standards) Rules, 2015 and relevant amendment rules issued thereafter. The Annual Report of FY 2017-18 of GETCO contains all the disclosures which are mandated by Ind AS and Companies Act, 2013. The Annual accounts so prepared under Ind-AS and Companies Act, 2013 are also duly audited by Internal Auditors, certified by



Statutory Auditors and C&AG in its Supplementary Audit. As per the provisions of Ind As, the company has disclosed revenue collected from transmission charges under Note No. 30 to the Notes to the Accounts of FY 2017-18. For True up and

determination of tariff, GETCO has taken into account all the requirements defined

under the GERC (MYT) Regulations, 2016 and accordingly the tariff petition was filed

by GETCO. Hence, GETCO has complied with all the specified statutory as well as

regulatory requirements while preparation of both financial statements as well as

filing of tariff Petition.

Commission's view

The Commission has noted the objection and the response of the Petitioner thereon

which is self-explanatory.

Issue No. 13: Break-up of Revenue received by GETCO

There is no mention of revenue received by GETCO/SLDC in the petition in truing up chapter for FY 2017-18. GETCO may be directed to give the revenue details from

whom they received the amount i.e. from Open Access Consumers, from DISCOMs,

from Private Distribution Licensees, from IPP, from wind generators, from Solar

generators etc. with quantum and charges.

Response of GETCO

It is submitted that Financial Statement 4 of Accounts is prepared as per the

requirements of Companies Act, 2013 and Accounting Standards (Ind AS). Financial

statement does not cover quantitative information such as energy transmitted. Such

details have been submitted to Commission as additional submission. The copy of

the same is available on the Commission's website. Further, there is an expense true

up carried out by the Commission for GETCO and details related to revenue received

are available in Annual Statement of Account of GETCO for FY 2017-18.

Commission's view

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

Issue No.14: Cost Audit Report

GETCO has not provided the cost records prescribed by the Central Government under Section 209(1)(d) of the Companies Act, 1956 along with Cost Audit Reports as contemplated in the MYT Regulations, 2016.

Response of GETCO

GETCO has appointed M/s Y.S. Thakar, Cost Accountants, Vadodara for Cost Audit of records of FY 2017-18 and the audit was carried out and the report was approved by the Board of Directors of GETCO. The Cost Audit Report in XBRL Format, which is duly certified by the Cost Auditor, is uploaded on the MCA Website.

Commission's view

The response of the Petitioner is self-explanatory.

Issue No.15: Submission of CAG Audit

GETCO/SLDC being a Govt. owned company is mandated for CAG Audit. GETCO/SLDC should be directed to provide the audit para raised by the CAG along with the petition.

Response of GETCO

AG Audit of GETCO Financial Statements of FY 2017-18 was carried out by the Office of the Principal Accountant General (E&RSA), Gujarat u/s 143(6)(b) of the Companies Act, 2013 and the said office has issued one comment vide letter no. ES-I/HQ II/A/cs/GETCO/2017-18/ow.775 dated 28.11.2018, The comment is a part of Financial Statements and the comment along with Management reply of GETCO is uploaded on the website of GETCO.

Commission's view

The Commission has noted the objection and the response of the Petitioner thereon which is self-explanatory.

Issue No.16: Provisional and Final ARR for FY 2016-17

The Commission has approved the ARR for FY 2016-17 in Petition No.1545 of 2015 vide Order dated 31.03.2016 based on the parameters approved for FY 2015-16 and



the Commission also approved the ARR for FY 2016-17 in Petition No.1620 of 2016 vide Order dated 31.03.2017. There is no provision either in the MYT Regulations, 2011 and 2016 or in Electricity Act, 2003 to approve the ARR for the same financial year - FY2016-17 two times in view of the facts that ARR itself is the projected estimation of Annual Revenue Requirement of generator or licensee based on the past but best parameters achieved for each element of tariff.

In case of GETCO, the provisional approved ARR for FY 2016-17 was Rs. 2772.05 Cr. (Petition No.1545 of 2015) and again approved ARR for FY 2016-17 is Rs.3057.64 Cr. (Petition No. 1620 of 20116). There are no reasons mentioned by GETCO why there is a vast difference of Rs.285.59 Cr. in their ARR within one-year time.

The approval of ARR is provisional and there is no provision in the MYT regime to approve provisional ARR and again approve second time provisional ARR in view of the facts that there is no provision in the MYT Regulations or the Electricity Act, 2003 as to with which approved ARR is to be compared with the actual incurred cost to arrive at the real gap or surplus. Therefore, the only difference of remaining controllable and uncontrollable factors is required to be compared with the approved value under MYT Order of the respective year. The difference should be within the narrow bandwidth say not be more than Rs. 0.05 to Rs. 0.10 per unit in view of the fact that generators or licensee transmission or distribution is supposed to achieve the targeted approved parameters to reduce the price by bringing in the efficiency, by increasing the generation to bring down the fixed cost per unit and by sweating the machinery and people involved in it.

It is also interesting to know that the ARR is approved on the hypothecated projections based on the past performance parameters of the licensee. In MYT Regulations, the parameters of tariff elements are determined as normative. However, the hypothecated approved ARR is comparable with the actual figures and not with the normative. GETCO has considered all elements of tariff controllable and uncontrollable as normative/actual as mentioned in their petition. GETCO may be directed to clarify whether it is on normative or actual incurred.

Response of GETCO



The Commission issued Order in Case No 1620 of 2016 dated 31st March, 2016 for Truing up of FY 2015-16, approval of final ARR of 2016-17 and approval of Multi Year ARR for FY 2016-17 to FY 2020-21 and determination of Tariff for FY 2017-18. Subsequently, the Commission issued Order in Case No. 1692 of 2017 dated 31st March 2018 for truing up of FY 2016-17 and determination of tariff for FY 2018-19. Respondent was one of the stakeholders of that petition. Considering above, GETCO has worked out its Aggregate Revenue Requirement (ARR) for FY 2017-18 as a part of the True up for 2017-18. GETCO has presented the actual cost components based on the audited annual account for the year 2017-18. In line with the provisions of the GERC MYT Regulations 2016, GETCO has computed the gains and losses on account of controllable and uncontrollable parameters and its proposed sharing mechanism.

True up and determination of tariff is based on the norms prescribed in GERC (MYT) Regulations, 2016 and accordingly the petition is filed for true up and tariff determination, the surplus/gap is identified, filed and approved by the GERC as per the norms prescribed in the Regulation.

Commission's view

The Petition is for true-up of FY 2017-18 and determination of tariff for FY 2019-20. Thus, the objection of the stakeholder pertains to past which was already dealt with in the Tariff Order dated 31st March, 2018. The issue of provisional and final ARR for FY 2016-17 has already been raised and dealt with by the Commission in the previous Tariff Order dated 31.03.2018. The Commission therein observed that the difference between provisional and final ARR for FY 2016-17 is because provisional ARR for FY 2016-17 was considered same as ARR of FY 2015-16 where legitimate escalation of various costs elements was not considered due to delay in finalisation of MYT Regulations for new control period 2016-17 to 2020-21. Such escalation has been considered in the final ARR for FY 2016-17. Other parameters such as debt, equity, RoE, interest on loan, depreciation were provisionally approved for FY 2016-17 based on approved capex and capitalization for FY 2015-16 which have been finally approved with new capex and capitalization for FY 2016-17 resulting into a gap between provisional and final ARR for FY 2016-17. However, GETCO has recovered transmission tariff during FY 2016-17 based on the provisional ARR for FY 2016-17 which should have been recovered based on final ARR for FY 2016-17 and



therefore, such under recovery has arisen which is required to be considered while determining tariff for FY 2018-19.

Issue No.17: Increasing Tariff, Loading Capacity and Transmission Loss

Introduction of basic scheme of MYT frame work and its principles which is based on the incentives and disincentives turned into futile exercise resulting into higher and higher tariff every year which requires the introspection by the stakeholders except consumers. It is found from the perusal of the petition that the GETCO has the loading capacity of 91544 MVA as on 31st March 2016, 101259 MVA as on 31st March 2017, (9715 MVA Added) however, GETCO has not mentioned whether this capacity is either more than demand or is in deficit.

GETCO at para 3.7.1 at page 14 of the petition stated that in FY 2017-18, GETCO has maintained its entire transmission system availability of the tune of 99.47 % more than the benchmark specified in the Regulations for recovery of full transmission charges i.e. (98%). However, GETCO has incurred more losses than previous years. It is also nowhere mentioned in the petition that how the consumers are benefited by investment of such huge funds in the transmission network either by reduction of transmission loss, or by providing the transmission network to Open Access consumers to encourage competition. For ARR of 2016-17 to 2020-21, GETCO has worked out the Transmission loss on higher side than what is achieved which is 3.85 %. However, MYT framework and principles does not allow this practice, the trajectory should be given based on the last achieved and to bring efficiency in the system, it should be not more than 2%. GETCO has also not mentioned the pooled losses which are required to be reduced as Transmission loss. The pooled losses are also required to be reduced. DISCOMs' transmission loss is 3.75 %, which is more than GETCO's. GETCO should be directed to provide the voltage wise transmission loss.

Response of GETCO

Getting a reliable & quality power supply is right of the consumer and providing such power is the responsibility of a utility. To avail its right and perform its duty efficient transmission network is to be developed and its tariff is to be determined as per tariff determination process in line with the GERC (MYT) Regulations and borne by all beneficiaries. The rise in transmission tariff of GETCO is legitimate. As stated in



petition during FY 2017-18, existing capacity of GETCO i.e. 110047 MVA is also increased from last year (8788 MVA). Actual transmission losses of GETCO (i.e. 3.72%) are also within limits. GETCO maintained the transmission availability of 99.47% in FY 2017-18, which is higher than target set by the Commission i.e. 98 %. Considering above performance & technical parameters, rise in transmission tariff as asked by GETCO is valid and legitimate as the same is worked out as per the GERC (MYT) Regulations. Further, as stated by the Objector regarding increase in transmission losses of GETCO, it is to state that transmission losses for the FY 2017-18 is 3.72%. Transmission losses are technical losses, uncontrollable in nature and depend on many parameters/ factors such as distance & mismatch between generation and load centres, types of load, reactive power compensation' voltage profile, seasonal variation, etc. Further, the pooled losses are energy losses in the transmission system of GETCO, as determined by SLDC. Such losses are to be borne by the Transmission System Users in proportion to their usage of the intra-State transmission system.

Commission's view

The Commission has noted the objection of the Objector and the response of the Petitioner, which is self-explanatory. The Commission approves the Capex of GETCO after due diligence of schemes proposed by GETCO considering requirement of the system/load growth. The Commission has also noted that the transmission availability achieved by GETCO is more than the approved transmission availability in the GERC (MYT) Regulations, 2016 and accordingly incentive has been provided. The Commission apart from the justification provided by Petitioner regarding increase of transmission losses also notes that the transmission losses for FY 2017-18 has improved over the FY 2016-17. As regards the objection that the pooled loss be reduced from transmission loss, it is to clarify that both are transmission losses i.e. one is from SLDC energy account and another is from GETCO formula and therefore reducing the pooled losses from transmission losses is not justified.

Issue No.18: Dues of Essar Steel not to be allowed

GETCO has incurred the Revenue as per Annual Report of Rs.3728.02 Crores in the FY 2017-18 and ARR as per truing up of 2017-18 is Rs.3580.68 Crores which is inclusive of Rs.365.77 Cr. dues from Essar Steel Ltd. Such unrecovered amount



cannot be passed to the consumers, because it is the responsibility of licensee to recover its dues from the consumers at the relevant time. Without this amount of Rs.365.77 Cr., the ARR comes to Rs.3214.91 Crore against MYT approved ARR of Rs.3396.55 Cr. However, GETCO has shown the revenue gap of Rs.284.86 Cr. This is not valid and legal in view of the fact that GETCO is responsible for recovery of dues from the consumer Essar. It cannot be the case, that loss if occur is socialized and profit is privatized. There should be revenue surplus rather than revenue gap. GETCO has written off the amount without the permission of the Commission. Such amount cannot be passed on to the consumers and should be on account of GETCO.

Response of GETCO

The dues written off pertains to Receivable for wheeling charges from M/s Essar Steel Limited of Rs.36577.08 Lakh for the period from 2006 to 2011. This matter is under litigation in the court of law and the Judgement of Supreme Court is awaited. It is to mention that the Company is required to comply with the Companies Act, 2013 which lays down the accounting requirements. The accounting requirements are laid down by way of the specific accounting standards to be complied with, for the Company's financial statements to be considered as reflecting a true and fair view of the company's state of affairs and its financial performance. As per Ind AS 109 Financial Instruments, the company is required to assess the recoverability of all its receivables. This assessment has to consider not only the legal position in terms of validity of the claim, but more importantly the probability of recoverability of the amount from trade receivables considering its financial situation/state of affairs. Pursuant to above requirements of the Companies Act 2013, the Management has noted the following facts for considering the recoverability of the amount from M/s. Essar Steel Limited, notwithstanding the legal validity of the Company's claim:

- 1. The Corporate Insolvency Resolution Process (CIRP) under Insolvency and Bankruptcy Code, 2016 (IBC) has been initiated against M/s Essar Steel Limited.
- 2. The CIRP has been approved by the Honourable National Company Law Tribunal, Ahmedabad and it is ongoing. GETCO has filed its claim with the designated Resolution Professional.



- 3. The Management has assessed the progress and status of CIRP including the number of bidders and the bid amounts and the likely recovery of the Company's dues.
- 4. Further, the Management has also considered the provisions of IBC as well as the broader experience of the insolvency proceedings.

Notwithstanding the legal tenability of the company's claims and litigation and without prejudice to the company's rights to recover the claims, the Management notes based on the facts and circumstances as of the date of issue of the financial statements for the year ended 31st March 2018, the receivable to be irrecoverable in its likelihood. Hence, the company is required to write off the entire receivable of Rs, 36577.08 Lakh as per the requirements of Ind-AS.

In this matter, it is to highlight that GETCO has raised the Invoices on M/s Essar Steel Limited in respective years based on the ARR approved by the commission and accordingly, GETCO is eligible to recover the said amount. However, till date the same is not recovered due to ongoing court cases and Insolvency & Bankruptcy Proceedings against M/s Essar Steel Limited at NCLT - Ahmedabad. Since this is under recovery of approved ARR of the respective year, GETCO is rightfully claiming the amount written off against M/s Essar Steel Limited dues as an exceptional item to the tune of Rs 36577.08 Lakh in the petition. Further, it is not out of place to mention that whenever GETCO receives outstanding dues from M/s Essar Steel in respect of debts written off, such amount will be booked as an Income in the year in the which the said amount is received.

Commission's view

The Commission has appropriately dealt with this issue in Chapter 4 of this Order.

Issue No.19: Returns are higher than 14%

GETCO has made the profit of Rs.375.72 Crore. after paying Income Tax of Rs.293.08 Crore. Not only that GETCO has earned Rs.5.60 per share of Rs.10/which is more than 56 % of the 100 % capital invested. The Electricity Act, 2003 and the MYT Regulations permit only 14 % RoE. The RoE is Rs.743.11 Crore. If this is so, how earning on each share is more than 15 %?



Response of GETCO

Return on Equity and Earnings Per Share are different Profitability ratios for evaluation of performance of the company. Earnings Per Share (EPS) measures the net earnings attributable to each share. It is the Profit for the Year divided by the weighted average number of shares issued and held and is expressed in rupees per share. It measures the return on a per-share basis. The calculation of EPS excludes other equity consisting of Share Application Money, Securities Premium Account. Contingency Reserve Fund and Retained Earnings and Reserves for financial assets measured at fair value through OCI. On the other hand, RoE measures the return shareholders are getting on their investments. It is Total Comprehensive Income divided by shareholders equity and is expressed in percentage terms. It measures return for each rupee of equity invested in the business. Here, the Equity includes subscribed and paid up Equity Share Capital, Share Application Money, Securities Premium Account, Contingency Reserve Fund and Retained Earnings and Reserve for financial assets measured at fair value through OCI. Return on Equity (ROE) is value based while Earnings Per share (EPS) is unit based and hence, as the numerator as well as denominator are different for both EPS as well as RoE, same is not comparable. Further, the Commission is approving 14% return on equity as per the norms mentioned in the GERC (MYT) Regulations, 2016.

Commission's view

The Commission has noted contentions of the Objector and the reply of the Petitioner. It is necessary to clarify here that truing up is carried out on the basis of the GERC (MYT) Regulations and (Gap)/ Surplus is determined on the basis of gains/ losses on account of controllable and uncontrollable parameters by comparing actual performance of GETCO during the true up year which is FY 2017-18 in this case. Comparison between Earning Per Share with Return on Equity is not proper considering the Commission allows normative Return on Equity at 14% as per the provisions of the GERC (MYT) Regulations, 2016 while earning per share represents profit per share.

Issue No.20: Use of depreciation as working capital

GETCO has claimed Depreciation of Rs.927.70 Crore in the truing up for FY 2017-18. The working capital interest is claimed is Rs.486.84 Crore. When the commercial



financial principle of accounts is applied, the amount of depreciation can be used as working capital and there should not be any need to have any amount by loan for working capital in view of the fact that the amount of depreciation is not a fund which is to be given to some other party as it is remaining with GETCO only. The amount of Depreciation is used somewhere by GETCO and the revenue generated from such funds should be considered as revenue to reduce the ARR. The Commission is requested to direct GETCO to provide bank loans' utilization certificates with terms and conditions at which loan is sanctioned.

Response of GETCO

As per Regulation 38.3 of the GERC (MYT) Regulations, 2016, the repayment for the year during the control Period from FY 2016-17 to FY 2020-21 shall be deemed to be equal to the depreciation allowed for that year and hence the depreciation cannot be used as a working capital. The company has rightfully claimed interest and financing charges considering depreciation for the year as repayment for the year. Also, Interest on Working capital is calculated as per the norms of the GERC (MYT) Regulations, 2016.

Commission's view

The Commission has noted the response of the Petitioner which is self-explanatory. Information on depreciation and its treatment is thoroughly provided in Regulation 39 of the GERC (MYT) Regulations, 2016. Accordingly, depreciation has been considered as repayment of loan. Utilization of depreciation towards working capital is not in consonance with the financial principles and the GERC (MYT) Regulations

Issue No.21: Revenue Gap in spite of having profits.

It is found from Annual Report that the total revenue of GETCO for FY 2017- 18 is Rs.3728.02 Crore whereas ARR is Rs.3580.68 Crore. including unrecovered Rs.365.77 Crore of Essar, ARR of Rs.3214.23 Crore and profit after tax is Rs.375.72 Crore. Whereas the Revenue Gap for 2017-18 shown is Rs. 285 Crores which is very strange to understand. Why there is such difference is required to be clarified by GETCO. GETCO has not shown the revenue earned in the truing up chapter against their ARR. The whole petition seems to be just like project report and seems to have no relations with the real accounts.



Response of GETCO

The petition is prepared and submitted as per the defined and approved methodology of the GERC (MYT) Regulations, 2016 whereas the books of accounts are prepared in accordance with Indian Accounting Standard (Ind AS) and the Companies Act, 2013. Hence, both are not comparable. Further, financial statement of FY 2017-18 is attached with the petition which is a source document of the said petition. Thus, the petition is prepared on the actual accounts as per the methodology prescribed under the GERC MYT Regulations, 2016.

Commission's view

The Commission has noted contentions of the Objector and the reply of the Petitioner. It is necessary to clarify here that truing up is carried out on the basis of the GERC (MYT) Regulations and (Gap)/ Surplus is determined on the basis of gains/ losses on account of controllable and uncontrollable parameters by comparing actual performance of GETCO during the true up year which is FY 2017-18 in this case.

Issue No.22: Mismatch in Other Income

GETCO has not shown the revenue earned from the transmission operation, however at para 3.22 page No. 24 of the petition they have shown the revenue from other income which is Rs. 277.73 Cr. It is a surprising that as per the Annual Report, the other income shown in the P/L Account is Rs.190.65 Crore. The mismatch of other income is required to be justified.

Response of GETCO

The GERC (MYT) Regulations, 2016 defines "Non-Tariff Income" as income relating to the regulated business other than from tariff, excluding any income from Other Business and, in case of the Retail Supply Business of a Distribution Licensee, excluding income from wheeling and receipts on account of cross subsidy surcharge and additional surcharge on charges of wheeling. Non-Tariff Income comprises of other Income and Revenue from operations excluding Transmission charges & SLDC Charges. The bifurcation of Non-Tariff income is provided in Table: 29 of the petition and is in line with the provisions of the GERC (MYT) Regulations, 2016.



Commission's view

The reply of the Petitioner is self-explanatory.

Issue No.23: Non-installation of DC Transmission Lines

GETCO has not installed the DC transmission lines which is now possible with the latest technology that even for short distance and less MW particularly for wind and solar generators. From the investment list, it seems that GETCO is more interested in building the sub-stations rather than effective loss reduction of transmission lines which is the need of the hour. GETCO has not made any provision for DC transmission line for wind and solar power with low MW and for short distance.

Response of GETCO

The suggestion of adopting HVDC transmission system in the State for short distance and less MW particularly for wind & solar generator is welcome but the Objector ought to know that HVDC system is not economical for short distance with lesser quantum as compared to HVAC system. HVDC system is designed for transmission of bulk power from fixed point to point in long distance i.e. more than 600 Km.

Commission's view

The Commission has noted the response of the Petitioner which is self-explanatory

Issue No. 24: Utilization of network and revenue generation from new investment is not obtainable and Liquidated Damages to be recovered from generators are not submitted in the petition

GETCO has incurred the capital expenditure of Rs. 2215.80 Crore against Rs.2078.74 Crore. as approved in the MYT order. There is mention about the reasons for excess capitalization than approved, and there is nowhere mentioned that for deviation, GETCO has obtained the permission of the Commission. However, whether the utilization of the network is done and revenue is generated from such investment is not clear. GETCO has not mentioned any Liquidated Damages received from the generators or the amount which is under dispute for recovery.

Response of GETCO



GETCO has capitalized expenditure of Rs.2215.80 Crore which is the expenditure on assets put to use and is considered in tariff determination. Such expenditure capitalized is a part of gross fixed asset of the year and tariff is determined based on such addition of gross fixed asset along with other components of tariff determination. Revenue generation from such expenditure is continuous and spread over years. Further, GETCO being the transmission company has no commercial dealings with generating company. Hence, the question of liquidated damages does not arise.

Commission's view

The Commission has noted the response of the Petitioner which is self-explanatory. The Commission approved Capex and Capitalization after due diligence in accordance with the GERC (MYT) Regulations, 2016. Further, GETCO has no dealings with the generating companies and hence no liquidated damages are collected. However, in case the transmission capacity booked by the generating companies is not utilized by these generating companies due to delay in commissioning of their projects, GETCO recovers the transmission charges from such generating companies which is part of revenue from transmission charges.

Issue No.25: Transmission Tariff

The tariff proposed by GETCO for FY 2019-20 is Rs. 4583.18/MW/day which is quite higher than the last tariff. GETCO has not given any statement like the transmission lines were created for the specific generators and as per terms and conditions of PPA, generators are not paying transmission charges to GETCO. The Commission is requested to reduce that tariff as the actual ARR is less than the approved one.

Response of GETCO

The tariff petition of GETCO covers legitimate expenditure of GETCO derived/calculated as per the provisions of the GERC (MYT) Regulations, 2016 and the Commission is requested to allow GETCO to recover the same.

Commission's view

The Commission has noted the objection of the Objector and the reply of the Petitioner. The Commission has only after undertaking the true-up exercise for FY



2017-18 for various components with prudence checks, proceeded to determine ARR for FY 2019-20 and the transmission charges as per the GERC (MYT) Regulations, 2016 and amendments thereof.

Issue No.26: Voltage-wise Transmission Charge and Losses

The Commission is requested to determine Voltage wise Transmission Charge and Losses upto 220 KV voltage level as TPL Distribution is sourcing power at 220 KV voltage level from GETCO periphery. However, transmission charges and losses are determined and recovered as per postage stamp method based the entire network cost involving cost of 400 KV, 220 KV, 132 KV and 66 KV.

Response of GETCO

The power system network in the State as well as at national level is operated as an integrated power network. The power flow in the integrated power network depends upon factors like locations of load and power generation, line impedance of network element etc. Therefore, when the entity is drawing power at a particular voltage level, the power flow in the network not only involves network element of that particular voltage level or higher voltage level but also involves network element of lower voltage level. Whenever entity is drawing power at 220 KV voltage level, the power flow in the network also involves network element of voltage level less than 220 KV. Therefore, it would not be appropriate to say that when TPL is drawing power at 220 KV, they are not utilizing transmission network of lower voltage level i.e. lower than 220 KV voltage level. All the entities concerned are required to bear the network charges and losses determined on the basis of network as a whole involving transmission elements of all voltage class. Considering above peculiarity of integrated power network, even in case of PGCIL, the transmission charges and losses are not differentiated on the basis of voltage level connectivity. Therefore, GETCO transmission network being operated on integrated basis, will not be able to apply voltage wise transmission charges and losses

Commission's view

The response of the Petitioner is self-explanatory.



4 Truing up for FY 2017-18

4.1 Introduction

This Chapter deals with the Truing up of FY 2017-18.

While doing 'Truing up' of various components of ARR for FY 2017-18, the actuals for FY 2017-18 are compared with the approved ARR as per MYT Order issued on 31st March 2017.

The Commission has analysed each of the components of the Aggregate Revenue Requirement (ARR) in the following sections.

4.2 Operations and Maintenance Expenses for FY 2017-18

As per the GERC (MYT) Regulations, 2016, O&M Expenses shall be computed based on the norms provided in Regulation 68.2.1. As per the norms, O&M expenses shall be computed based on the number of bays and transmission line length (in Ckt. km.).

GETCO has worked out the normative O&M expenses based on the actual number of bays and transmission line length (in Ckt. km.) of Rs. 1430.56 Crore in the truing up for FY 2017-18, as against Rs. 1410.70 Crore approved in the MYT Order dated 31st March, 2017.

The O&M expenses approved for FY 2017-18 by the Commission in the MYT Order dated 31st March 2017 and worked out (based on actual data) by GETCO in the truing up for FY 2017-18 are given in the Table below:

Table 4.1 : O&M Expenses (Normative / Actuals) as submitted by GETCO for 2017-18

Sr. No.	Particulars	Unit	Approved in the MYT Order	Actual
1	Based on No. of Bays			
	Average No. of Bays during the year	No.	12,659.80	12,917.00
	O&M Expenses per Bay	Rs. Lakh	8.04	8.04
	Total O&M Expenses based on No. of Bays	Rs. Crore	1,017.85	1,038.53



Sr. No.	Particulars	Unit	Approved in the MYT Order	Actual
2	Based on No. of Transmission lines			
	Average lines' length during the year	No.	57,771.84	57,651.94
	O&M Expenses per Ckt. km.	Rs. Lakh	0.68	0.68
	Total O&M Expenses based on No. of Ckt. km.	Rs. Crore	392.85	392.03
3	Total O&M Expenses (as per Norms)	Rs. Crore	1,410.70	1,430.56

Petitioner's Submission

GETCO has computed O&M expenses by considering the actual Employees cost, R&M expenses and A&G expenses based on the audited annual accounts for FY 2017-18 for working out gain/ (loss). The O&M expenses (excluding SLDC's) as per audited annual accounts are as shown in the Table below:

Table 4.2: O&M Expenses (as per audited accounts) for 2017-18

(Rs. Crore)

Sr. No.	Particulars	Actual Claimed
1	Employees Cost	942.82
2	Repairs & Maintenance Expenses	296.16
3	Administrative & General Expenses	94.02
4	Total Operation & Maintenance Expenses	1,332.99

The Petitioner has also submitted that O&M expenses are controllable in nature, under Regulations 22 of the GERC (MYT) Regulations, 2016. However, as per the methodology adopted by the Commission, the variance in the O&M expenses as approved in the MYT Order and the normative O&M expense as per actual performance during the year is considered as uncontrollable and variation in the normative O&M expenses and actual as per audited accounts is considered as controllable.

In the True up Orders for FY 2015-16 & FY 2016-17, the Commission had not approved the provision towards 7th Pay Commission as it was not actually paid to the employees. However, the Commission had ruled that the impact in Employee



Expenses due to revision in salary shall be considered by the Commission after prudence check as an uncontrollable factor in the year in which the actual pay out occurs. Accordingly, GETCO has considered the actual impact of the 7th Pay Commission of Rs. 53.54 Crore as uncontrollable.

The O&M expenses and gain/(loss) considered in the truing up for FY 2017-18 are summarized in the Table below:

Table 4.3: Gain/ (Loss) claimed from O&M Expenses

(Rs. Crore)

Particulars	Approved in the MYT Order	Normative	Actual as per audited Accounts	Gain/ (Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
O&M Expenses	1,410.70	1,430.56	1,332.99	151.11	(73.40)

[Note: The Uncontrollable loss comprises of difference of Approved and Revised Normative O&M expenses i.e. (Rs. 1410.70 Crore – Rs. 1430.56 Crore = Rs.(19.86) Crore plus Rs. (53.54) Crore towards 7th Pay Commission impact i.e. a total of Rs. (73.40) Crore.]

Commission's Analysis

GETCO has arrived at the O&M expenses for FY 2017-18, by applying the normative expenses over the actual number of bays and the length of lines and compared it with the approved O&M expenses for the computation of uncontrollable gain/(loss). Further, GETCO has compared the normative actual O&M expenses that it has computed at Rs. 1430.56 Crore with actual O&M expenses at Rs. 1332.99 Crore from the audited accounts.

The proviso to Regulation 68.2.1 of the GERC (MYT) Regulations, 2016 provides that:

Transmission Licensee shall submit a certificate from the Chief Electrical Inspector for the number of bays and circuit kilometres of transmission line added during the year at the time of truing up.

The Commission verified the copies of certificate issued by the Electrical Inspector and asked the Petitioner to reconcile the addition in number of bays and line Ckt. km as there were repetition and duplication. Accordingly, the Petitioner submitted the



revised number of sub-station bays and line ckt.km which has been verified by the Commission and considered in this Order.

The Commission has, therefore, considered addition of 656 number of bays and 1540.05 Ckt. km. line additions during the FY 2017-18. Accordingly, the Commission has worked out the normative O&M expenses of Rs. 1428.38 Crore as detailed in the Table below:

Table 4.4: O&M Expenses Normative in Truing up for 2017-18

(Rs. Crore)

		Claimed			Approved	/ed	
Particulars	Lines	Bays	Total	Lines	Bays	Total	
	(Ckt.km)	(Nos.)		(Ckt.km)	(Nos.)		
At the beginning of the year	56845.44	12565.00		56845.44	12565.00		
Addition during the year	1613.00	704.00		1540.05	656.00		
At the end of the year	58458.44	13269.00		58385.49	13221.00		
Average	57651.94	12917.00		57615.47	12893.00		
Rate (Rs. Lakh)	0.68	8.04		0.68	8.04		
O&M Expenses	392.03	1038.53	1430.56	391.79	1036.60	1428.38	

The Commission approves the normative O&M expenses at Rs. 1428.38 Crore in the Truing up for FY 2017-18 against Rs. 1410.70 Crore approved in the MYT Order.

The O&M expenses of the Petitioner for FY 2017-18 excluding O&M expenses of SLDC, as per audited annual accounts, are Rs. 1318.46 Crore (exclusive of Rs. 115.32 Crore towards Re-measurement of the Defined Benefit Plans).

The employee cost of GETCO as per audited annual accounts is Rs. 921.33 Crore (excluding SLDC expenses of Rs. 14.50 Crore), and the Commission has further added therein Rs. 115.32 Crore towards Re-measurement of the Defined Benefit Plans as appearing in P&L Statement for FY 2017-18 to arrive at total expenses of Rs. 1036.65 Crore.

The Petitioner also informed that the aforesaid employee expenses are inclusive of provision of Rs. 93.83 Crore towards revision in salaries due to 7th Pay Commission



and actual payment on account of 7th Pay Commission of Rs. 53.54 Crore. As the amount of Rs 93.83 Crore is only a provision at this moment, the Commission has excluded the same from the total employee expenses to arrive at the admissible employees expenses of Rs. 942.82 Crore. The impact in Employee expenses due to revision in salary on account of 7th Pay Commission will be considered by the Commission after prudence check as an uncontrollable factor as and when actual pay out occurs. Accordingly, the Commission approves the Employee expenses of Rs. 942.82 Crore in the true up of FY 2017-18.

As per audited annual accounts, the R&M expenses are Rs. 296.16 Crore (excluding SLDC expenses of Rs. 6.69 Crore). Accordingly, the Commission approves the R&M expenses of Rs. 296.16 Crore.

The A&G expenses, as per audited annual accounts are Rs. 100.97 Crore (excluding SLDC expenses of Rs. 5.05 Crore). The Petitioner has claimed A&G expenses of Rs. 94.02 Crore excluding expenses on Corporate Social Responsibilities (CSR) amounting to Rs. 1.71 Crore and other Administrative & General expenses of SLDC of Rs. 5.23 Crore (ULDC Charges of SLDC charges). The Petitioner vide email dated 31.12.2018 informed that ULDC charges payable by SLDC of Rs. 5.23 Crore has been deducted twice in ARR of GETCO and accordingly for the True up of GETCO's standalone, the amount needs to be increased by Rs.5.23 Crore. The Commission has confirmed the aforesaid submission of GETCO of double deduction of Rs. 5.23 Crore (ULDC Charges) from O&M expense. Accordingly, the Commission approves A&G expenses as Rs. 99.25 Crore (Rs. 94.02 Cr. + Rs. 5.23 Cr.)

The Commission accordingly, approves the O&M expenses in truing up at Rs. 1338.23 Crore, as detailed in the Table below:

Table 4.5: O&M Expenses Approved in Truing up for 2017-18

Sr. No.	Particulars	Approved in the Truing up
1	Employees Cost inclusive of Re-measurement of Defined Benefits Plans	942.82
2	Repairs & Maintenance Expenses	296.16
3	Administrative & General Expenses	99.25
4	Total Operation & Maintenance Expenses	1,338.23



O&M Expenses are controllable in nature under the GERC (MYT) Regulations, 2016. However, the Commission is of the view that the variance in the O&M Expenses, as approved in the MYT Order and the normative O&M expenses, as per actual performance during the year, is uncontrollable and variance between the normative O&M Expenses as per actual performance and the Audited Accounts is controllable. The Commission has also considered the actual payout of Rs. 53.54 Crore on account of 7th Pay Commission in FY 2017-18 as uncontrollable. The O&M expenses and Gain/(Loss) considered in the Truing up for FY 2017-18 are summarised in the Table below:

Table 4.6: O&M Expenses and Gain/(Loss) Approved in Truing up for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Normative Approved in Truing up	Approved as per audited accounts in Truing up	Deviation + /(-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
1	2	3	4	5 = (2-4)	6 = (3-4 and impact of 7 th Pay Commission)	7 = (2-3 and impact of 7 th Pay Commission)
O&M Expenses	1,410.70	1,428.38	1,338.23	72.47	143.69	(71.22)

4.3 Capital Expenditure and Capitalization for FY 2017-18

GETCO has furnished the actual capital expenditure at Rs. 2914.38 Crore for FY 2017-18, as against Rs. 2598.42 Crore approved for FY 2017-18, in the MYT Order dated 31st March 2017.

Petitioner's Submission

The Petitioner has submitted that in order to ensure unrestricted power flow across the State of Gujarat and maintain an efficient transmission system, GETCO had spent significant amount of capital expenditure for construction of transmission lines and sub-stations during FY 2017-18. Capital Expenditure of Rs. 2598.42 Crore was approved in the MYT Order dated 31.03.2017 and GETCO has incurred an actual expenditure of Rs. 2914.38 Crore during FY 2017-18. GETCO has incurred this expenditure in construction of new sub-stations and transmission lines required for strengthening the transmission network of GETCO.



Funding of CAPEX

GETCO has submitted that the Capital Expenditure incurred during FY 2017-18 has been funded through grants, equity and the remaining expenditure has been funded through debt, as detailed in the Table below:

Table 4.7: Actual Funding of CAPEX

(Rs. Crore)

Sr. No.	Particulars	Approved in the MYT Order	Actual
1	Capex	2,598.42	2,914.38
2	Capitalization	2,078.74	2,215.80
3	Consumer contributions / Grants	277.51	406.20
4	Equity	540.37	542.88
5	Debt	1,260.86	1,266.72

Commission's Analysis

The Commission has noted the capital expenditure, as given in the Petition by GETCO and verified the capitalization from the audited annual accounts for FY 2017-18. The Commission found that the actual capital expenditure is Rs. 2911.09 Crore (excluding SLDC's Capex of Rs. 2.72 Crore) and capitalization as per audited annual accounts for FY 2017-18 is Rs. 2213.07 Crore (excluding SLDC's capitalization of Rs.2.72 Crore) as against the claim of Rs. 2914.38 Crore and Rs. 2215.80 Crore respectively. It has been observed that GETCO has deviated from the CAPEX and Capitalization approved in the MYT Order. GETCO has submitted the reasons for deviation in the approved CAPEX vide letter No. ACE(R&C) /EE-C/3168 dated 28.12.2018 as under:

400 KV Substation:

Planned: Rs. 204 Crore, Actual: Rs. 240.73 Crore, Difference: Rs. (36.73) Crore

Substation	Planned	Actual	Deviation	Reason/ Current Status
400 KV Bhachunda	26	21.5	5	Minor deviation, WIP



Substation	Planned	Actual	Deviation	Reason/ Current Status
400 KV Bhogat	55	0	55	Tender is delayed, WIP
400 KV Sanand	40	160	(120)	Planned in FY 2018-19 but Early Commissioned
400 KV Vav	43	8.41	35	Tender is delayed, WIP
400/220/66 KV Charanka	0	2.26	(2)	Final bill payment not envisaged earlier
400 KV Veloda	0	2.59	(3)	Final bill payment not envisaged earlier
Soja Bay	0	4.08	(4)	Line Bay cost not envisaged
Total	164	199	(35)	

400 KV Transmission Lines:

Planned: Rs. 561 Crore, Actual: Rs. 442.47 Crore, Difference: Rs. 118.53 Crore

(Rs. Crore)

Name of Line	Planned	Actual	Difference	Reason/Current Status
400 KV Bhachunda-Varsana	42	15.56	26.44	RoW issue
400 KV Shapar-Pachcham	37.5	0	37.5	Re-tendered due to GST
400 KV Hadala-Shapar	39	21.2	17.8	RoW issue
400 KV Bhogat-Kalawad	50	26	24	RoW issue
400 KV Bhachunda - Bhuj Pooling station	15	0	15	Yet to tenderized
Total	183.5	62.76	120.74	

220 KV Substation:

Planned: Rs. 362 Crore, Actual: Rs. 109.41 Crore, Difference: Rs. 252.59 Crore

Name of Substation	Planned	Actual	Difference	Reason
220 KV Babara	26.88	1	25.88	Land Issue due to Farmer agitation
220 KV Sarigam	29.58	0	29.58	Modality changed from AIS to GIS/Digital looking to the scarcity of land
220 KV Virpore	15	0.08	14.92	Tender delayed
220 KV Amod	30	1.59	28.41	Civil work under



Name of Substation	Planned	Actual	Difference	Reason
				progress
220 KV Mesanka	30	0	30	Tender delayed
220 KV Kawant	25.67	8.71	16.96	Major expenses incurred in FY 2016-17
220 KV Visavadar	20	0	20	
220 KV Bagodara	18.99	5	13.99	Delay in start of work
220 KV Rajula	20	0	20	Yet to tenderized
220 KV Kalawad	21	0.66	20.34	Due to change in the
220 KV Wankaner	17.5	0	17.5	tender modalities as it is under KfW loan
220 KV Makansar	10	0	10	Delayed in Tender
220 KV Santej	13.08	5.25	7.83	WIP
Total	277.7	22.29	255.41	

132 KV Line:

Planned: Rs. 32 Crore, Actual: Rs. 15.8 Crore, Difference: Rs. 16.2 Crore

(Rs. Crore)

Name of 132 kV Transmission Line	Planned	Actual	Difference	Reason
LILO of 132 KV S/C Junagadh - Talala line at 220 KV Shapur	9.14	2.32	6.82	PoW issue
LILO of circuit of 132 KV S/C Gondal - Haripur line at 220 KV Visavadar substation	9.27	1.18	8.09	RoW issue
Total	18.41	3.5	14.91	

66 KV Substation:

- Planned: Rs. 380 Crore, Actual: Rs. 680.98 Crore, Difference: Rs. (300.98) Crore
- Major deviation is due to the capex incurred for the spill over works mainly in the form of Final bill payment, Final Land payment and minor works pending at the last year commissioned substation.
- Apart from above, capex is also incurred on the substation under Advance action.
- Capex incurred on the planned 98 substations is Rs 352.35 Crore.
- Capex incurred on Spill over work is Rs. 161.28 Crore.



- Capex incurred on Advance action work is Rs. 48.14 Crore.
- Apart from above, amount of interest capitalized is also referred under the capex.

66 KV Transmission Line:

- Planned: Rs. 153 Crore, Actual: Rs. 361.67 Crore, Difference: Rs. (208.67)
 Crore.
- Major deviation is due to the capex incurred on underground cable.
- During planning U/G cable is not considered as location of substation and route map of transmission lines is not available. Therefore, approx. 7 km length is considered per substation taking average Rs 17 Lakh per km.
- In FY 2017-18, 135 km of U/G cable is laid having average per km cost of Rs. 1.9
 Crore making it Rs. 256 Crore.

In view of the above, it is observed that the voltage class-wise accurate planning of capex for 5 years is very difficult as there are lots of constraints and external interferences in the project cycle like Land acquisition issue, contractor issue, Right of Way issue, delay in statutory clearance, change in economical factors, etc. These factors may hamper the project planning & execution and since GETCO is having many ongoing projects which also makes it very much impractical to be accurate for each project.

The Commission has noted the submission made by GETCO regarding deviation of CAPEX and accordingly approves CAPEX of Rs. 2911.09 Crore and capitalization of Rs. 2213.07 Crore.

The Petitioner has submitted the funding of the capitalization during the year after reduction of grant by debt and equity in the ratio of 70:30.

With regard to funding of capitalization, Regulation 33 of the GERC (MYT) Regulations, 2016 provides that that where the actual equity employed is less than 30% of capital cost approved by the Commission, the actual equity shall be considered. It is observed from Note No. 17(a) and 18.2 of the Audited Annual Accounts of FY 2017-18 that there is equity addition of Rs. 824.86 Crore during the year. This equity addition of Rs. 824.86 Crore is inclusive of equity addition of Rs.



4.24 Crore apportioned to SLDC. Thus, net equity addition pertaining to GETCO works out to Rs. 820.62 Crore (824.86 - 4.24) for FY 2017-18. However, according to the GERC (MYT) Regulations, 2016 equity should not be more than 30% of the balance capitalization. Therefore, in light of above observation and aforesaid Regulation, the Commission has restricted the equity addition to the extent of Rs. 542.06 Crore (30% of balance capitalization) after considering the Grants & Consumer Contribution of Rs. 406.20 Crore received during the year. Accordingly, the balance capitalization is considered by the Commission as debt.

The funding of CAPEX approved for truing up of FY 2017-18 is given in the Table below:

Table 4.8: Capital Expenditure and Capitalisation approved in the Truing up for 2017-18

Sr. No.	Particulars	(Rs. Crore)
1	CAPEX during 2017-18	2,911.09
2	Capitalization approved for 2017-18	2,213.07
3	Less: Grants	406.20
4	Balance Capitalization (2-3)	1,806.87
5	Equity	542.06
6	Debt (4-5)	1,264.81

The addition of above loan and equity is considered for computation of Interest on Term Loans and Return on Equity for FY 2017-18.

4.4 Depreciation for FY 2017-18

GETCO has claimed Rs. 927.70 Crore towards actual depreciation for FY 2017-18, as against Rs. 1028.56 Crore approved for the year in the MYT Order dated 31st March 2017 as given in the Table below:

Table 4.9: Depreciation claimed for 2017-18

Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
1	Gross Block in Beginning of the year	20,070.06	20,209.95	



Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
2	Additions during the Year (Net)	2,078.74	2,215.80	
3	Closing Gross Block	22,148.79	22,425.75	
4	Average Rate of Depreciation	4.87%	4.35%	
5	Depreciation	1,028.56	927.70	100.86

Petitioner's Submission

GETCO has submitted that the actual depreciation charge for FY 2017-18 was Rs. 927.70 Crore as against Rs. 1028.56 Crore approved in the MYT Order dated 31st March, 2017.

The variation in the amount of depreciation as per the actual cost incurred by GETCO in FY 2017-18 against the amount approved by the Commission is considered as gain/(loss) on account of uncontrollable factors and has been appropriately treated as detailed in the Table below:

Table 4.10: Gain/(Loss) claimed on Depreciation in the Truing up for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Claimed in the Truing up	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Depreciation	1,028.56	927.70	-	100.86

Commission's Analysis

The depreciation, as verified from the audited annual accounts for FY 2017-18, is Rs. 930.48 Crore. This includes depreciation of Rs. 2.78 Crore related to SLDC. Therefore, depreciation for GETCO works out to Rs. 927.70 Crore.

The Commission in the MYT Order dated 31st March, 2017 has observed the following:

In case of Depreciation, Regulation 39 of the GERC (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 the Transfer Scheme, and thereafter depreciation will be spread over the balance useful life of the assets:"

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. The Commission will consider and allow depreciation charges for FY 2017-18 in accordance with the MYT Regulations, 2016."

GETCO has calculated the Depreciation for FY 2017-18 in accordance with the provisions of the GERC (MYT) Regulations, 2016 and the aforementioned directives of the Commission.

The actual depreciation for FY 2017-18 works out to Rs. 927.70 Crore. The Weighted Average Rate of Depreciation, works out to be 4.35% which is less than 4.87%, rate approved by the Commission for FY 2017-18.

The Commission in accordance with the GERC (MYT) Regulation, 2016 has computed the allowable depreciation for FY 2017-18, as detailed in the Table below:

Table 4.11: Depreciation approved in the Truing up for 2017-18

Sr. No.	Particulars	Approved in the MYT Order	Approved in the Truing up
1	GFA in the Beginning of the year	20,070.06	20,209.95
2	Additions during the year (Net)	2,078.74	2,213.07
3	Closing Block	22,148.79	22,423.02
4	Depreciation for the year	1,028.56	927.70



Sr. No.	Particulars	Approved in the MYT Order	Approved in the Truing up
5	Average Rate of Depreciation	4.87%	4.35%
6	Total Depreciation for the year	1,028.56	927.70

The Commission, accordingly, approves depreciation at Rs. 927.70 Crore excluding Rs. 2.78 Crore of SLDC in the Truing up, as per audited accounts for FY 2017-18.

With regard to the computation of Gain/(Loss), Regulation 22.2 of the GERC (MYT) Regulations, 2016 considers variations in capitalisation on account of time and/or cost overruns / efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events, as a controllable factor. If the gain is on account of lesser capital expenditure and capitalisation, it cannot be attributed to the efficiency of the utility to allow one-third of gain to the utility. Similarly, if the loss is on account of higher capital expenditure and capitalisation due to bonafide reasons, the utility cannot be penalised by allowing only two-thirds of the loss in the ARR. Hence, the Commission considered the variation in capitalization as uncontrollable. This applies to debt and equity in allowing Gain/(Loss) on account of Interest and Return on Equity too.

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

Table 4.12: Gain / (Loss) due to Depreciation in the Truing up for 2017-18

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation + / (-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Depreciation	1,028.56	927.70	100.86	-	100.86



4.5 Interest and Finance Charges for FY 2017-18

GETCO has claimed Rs. 486.84 Crore towards Interest and Finance Charges in the Truing up for FY 2017-18, as against Rs. 579.13 Crore approved for the year in the MYT Order as given in the Table below:

Table 4.13: Interest and Finance Charges Claimed by GETCO

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed
Interest and Finance Charges	579.13	486.84

Petitioner's Submission

The Closing Balance of Loans approved in the True up Order for FY 2016-17 dated 31st March, 2018 is considered as the Opening Balance of Loans for FY 2017-18. The debt component of the capitalisation during the year net of grants is considered at the debt-equity ratio of 70:30.

GETCO has submitted that the weighted average rate of loans is 7.97% on the actual loan portfolio during the year FY 2017-18 as per Regulation 38.5 of the GERC (MYT) Regulations, 2016.

GETCO has calculated Interest on Loans by considering repayment of loan equivalent to Depreciation of the year as given below:

Table 4.14: Interest & Finance Charges claimed by GETCO

(Rs. Crore)

Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
1	Opening Loans	5,648.46	5,932.16	
2	Loan Additions during the Year	1,260.86	1,266.72	
3	Repayment during the year	1,028.56	927.70	
4	Closing Loans	5,880.76	6,271.18	
5	Average Loans	5,764.61	6,101.67	
6	Interest on Loans	578.13	486.14	
7	Other Finance Charges	1.00	0.70	



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Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
8	Total Interest & Finance Charges	579.13	486.84	92.29
9	Weighted Average Rate of Interest on Loan	10.03%	7.97%	

GETCO has claimed Rs. 92.29 Crore as gain from Interest and Finance Charges due to uncontrollable factors, as detailed in Table below:

Table 4.15: Gain/ (Loss) claimed from Interest & Finance Charges

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed	Gain/ (Loss) due to Controllable Factors	Gain/ (Loss) due to Uncontrollable Factors
Interest & Finance Charges	579.13	486.84	-	92.29

Commission's Analysis

The Commission has examined the submission of GETCO. In line with the Order dated 31st March, 2018 for True-up of FY 2016-17, the value of Opening Loans for FY 2017-18 is Rs. 5932.16 Crore. The Commission has approved capitalisation and asset addition of Rs. 2213.07 Crore in Table 4.8 of this Order. The Commission has deducted the Consumer Contribution and Govt. Grant of Rs. 406.20 Crore from capitalisation and arrived at the balance capitalization of Rs. 1806.87 Crore for FY 2017-18. The Commission has approved funding of this balance capitalization through equity of Rs 542.06 Crore and debt of Rs 1264.81 Crore in Table 4.8 of this Order.

The repayment of loans during the year has been considered equal to the depreciation of Rs. 927.70 Crore for FY 2017-18 approved in Table 4.11 of this Order.

As per first proviso of Regulation 38.5 of the GERC (MYT) Regulations, 2016, at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the year applicable to the Transmission Licensee shall be considered as the rate of interest. As per aforesaid Regulation and the data provided by GETCO, the Commission has worked out the weighted average interest rate as 7.84% and applied the same on the normative loan amount. The other finance



charges of Rs. 0.70 Crore as claimed by GETCO are as per the Audited Annual Accounts exclusive of charges pertaining to SLDC. Based on the actual capitalisation achieved by GETCO during FY 2017-18 and the approved normative borrowings, considering the interest rate of 7.84% the Commission has computed the interest on normative loans, as detailed in the Table below:

Table 4.16: Approved Interest and Finance Charges in Truing up for 2017-18 (Rs. Crore)

Sr. No.	Particulars	Approved in the MYT Order	Approved in the Truing up
1	Opening Loans	5,648.46	5,932.16
2	Loan Additions during the year	1,260.86	1,264.81
3	Repayment during the year	1,028.56	927.70
4	Closing Loans	5,880.76	6,269.27
5	Average Loans	5,764.61	6,100.71
6	Weighted Average Rate of Interest on Loan	10.03%	7.84%
7	Interest on Loans	578.13	478.30
8	Other Finance Charges	1.00	0.70
9	Total Interest & Finance Charges	579.13	479.00

The Commission accordingly, approves Interest and Finance Charges of Rs. 479.00 Crore for FY 2017-18.

As noted in Para 4.4 above, the Commission is of the view that the parameters which affect 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 4.17: Approved Gain/(Loss) in Interest & Finance Charges in Truing-up for 2017-18 (Rs. Crore)



Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation + /(-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollab le Factors
Interest and Finance Charges	579.13	479.00	100.13	-	100.13

The Commission accordingly approves the gain of Rs. 100.13 Crore on account of uncontrollable factors.

4.6 Interest on Working Capital for FY 2017-18

GETCO has claimed Rs. 63.89 Crore towards Interest on Working Capital in the Truing up for FY 2017-18, as against Rs. 70.35 Crore approved for the year in the MYT Order dated 31st March, 2017 as given in the Table below:

Table 4.18: Interest on Working Capital claimed by GETCO

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
Interest on Working Capital	70.35	63.89	6.46

Petitioner's Submission

GETCO has submitted that Working Capital is computed based on the norms provided in the GERC (MYT) Regulations, 2016 by considering O&M expenses, Receivables for 1 month and maintenance spares @ 1% of historical cost (i.e. GFA).

GETCO has further submitted that as per the GERC (MYT) Regulations, 2016, interest rate is considered as 1-year SBI MCLR plus 250 basis points i.e. 10.50%. The comparison of actual value of Interest on Working Capital based on above methodology and the value approved by the Commission is shown in the Table below. This deviation has been considered as loss to GETCO on account of uncontrollable factors.



Table 4.19: Interest on Working Capital and Gain/ (Loss) claimed in Truing up (Rs. Crore)

Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
1	O&M Expenses (1 Month)	117.56	111.08	
2	Maintenance Spares (1% of opening GFA)	200.70	202.10	
3	Receivables (1 Month)	282.99	295.48	
4	Total Working Capital	601.25	608.66	
5	Rate of Interest on Working Capital	11.70%	10.50%	
6	Interest on Working Capital	70.35	63.89	6.46

Commission's Analysis

The Commission has examined the computation of normative working capital and interest thereon under the GERC (MYT) Regulations, 2016.

The working capital comprises of one month's O&M Expenses, Maintenance Spares at 1% of historical cost and Receivables equivalent to one month of Transmission Charges calculated on target availability level.

The Commission has considered the weighted average of 1-year State Bank of India (SBI) Marginal Cost of Funds Based Lending Rate (MCLR) of 8.00% prevailing during the FY 2017-18 plus 250 basis points as the interest rate. Accordingly, the rate of interest is worked out to be 10.50%.

Based on the O&M Expenses and other expenses now approved in the Truing up, the Working Capital and Interest thereon calculated at 10.50%, are detailed in the Table below:

Table 4.20: Interest on Working Capital approved in Truing up for 2017-18

Sr. No.	Particulars	Amount
1	O&M Expenses (1 Month)	111.52
2	Maintenance Spares (1% of opening GFA)	202.10



Sr. No.	Particulars	Amount
3	Receivables (1 Month)	266.25
4	Total Working Capital	579.87
5	Rate of Interest	10.50%
6	Interest on Working Capital	60.86

The Commission, accordingly, approves the Interest on Working Capital at Rs. 60.86 Crore in the Truing up for FY 2017-18.

The Commission considers the Interest on Working Capital as uncontrollable, since the components forming part of the Working Capital are mostly uncontrollable. The Commission, accordingly, approves the (Gain)/Loss on account of Interest on Working Capital in the Truing up for FY 2017-18, as detailed in the Table below:

Table 4.21:Gain/(Loss) in Interest on Working Capital Approved in Truing up for 2017-18 (Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation +/(-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrolla ble Factors
Interest on Working Capital	70.35	60.86	9.49	-	9.49

4.7 Return on Equity (RoE) for FY 2017-18

GETCO has claimed Rs. 743.11 Crore towards Return on Equity in the Truing up for FY 2017-18, as against Rs. 768.70 Crore approved for the year in the MYT Order as given in the Table below:

Table 4.22: Return on Equity claimed by GETCO for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed
Return on Equity	768.70	743.11

Petitioner's Submission



GETCO has submitted that the Return on Equity has been computed @ 14% as provided in the GERC (MYT) Regulations, 2016. The deviation in Return on Equity is considered as uncontrollable factor. The comparison between the actual values of Return on Equity for FY 2017-18 with the values approved by the Commission in the Order dated 31st March 2017 is shown in the Table below:

Table 4.23: Return on Equity claimed by GETCO for 2017-18

(Rs. Crore)

Sr. No.	Particulars	Approved in the MYT Order	Actual Claimed	Deviation + /(-)
1	Opening Equity	5,220.54	5,036.48	
2	Equity Additions during the year	540.37	542.88	
3	Closing Equity	5,760.91	5,579.36	
4	Average Equity	5,490.73	5,307.92	
5	Rate of Return on Equity	14%	14%	
6	Return on Equity	768.70	743.11	25.59

Commission's Analysis

The Commission has examined the submission of GETCO. Return on Equity is allowed on the average equity deployed during the year considering the Opening Equity and addition to Equity. The quantum of Equity addition in the year depends upon the capitalization achieved during the year.

The Closing Equity of the previous year i.e. FY 2016-17 is considered as the Opening Equity for FY 2017-18. Equity addition during FY 2017-18 is Rs. 542.06 Crore as approved in Table 4.8 of this Order.

Accordingly, the Commission has computed the Return on Equity for FY 2017-18, as detailed in the Table below:

Table 4.24: Approved Return on Equity in the Truing up for 2017-18

Sr. No.	Particulars	Approved in the MYT Order	Approved in the Truing up
1	Opening Equity	5,220.54	5,036.48



Sr. No.	Particulars	Approved in the MYT Order	Approved in the Truing up
2	Equity Additions during the year	540.37	542.06
3	Closing Equity	5,760.91	5,578.54
4	Average Equity	5,490.73	5,307.51
5	Rate of Return on Equity	14%	14%
6	Return on Equity	768.70	743.05

The Commission approves Return on Equity at Rs. 743.05 Crore in the Truing up for FY 2017-18.

The Commission is of the view that Return on Equity depends on the amount of capitalisation during the financial year and that the parameters affecting the capitalisation are uncontrollable in nature, as noted in Para 4.4 above. Hence, the factors affecting Return on Equity are uncontrollable. The Commission accordingly approves the gain and loss on account of Return on Equity in the Truing up for FY 2017-18, as detailed in the Table below:

Table 4.25: Gain/(Loss) in Return on Equity approved in the Truing up

(Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation +/(-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollab le Factors
Return on Equity	768.70	743.05	25.65	-	25.65

4.8 Exceptional Items

The Petitioner has submitted, as recorded in the Note 55 of the audited annual accounts of FY 2017-18, the amount Receivable from Trade Receivables for wheeling charges includes an amount aggregating to Rs. 36,577.08 Lakh (P.Y. Rs. 36,577.08 Lakh) for period 2006 to 2011, due from M/s Essar Steel Limited. This is under litigation in the court of law. The Hon'ble High Court, Gujarat has passed an Order in favour of GETCO and currently the matter is pending with Hon'ble Supreme Court. The Corporate Insolvency Resolution Process (CIRP) under Insolvency and Bankruptcy Code, 2016 (IBC) has been initiated against M/s Essar Steel Limited.



GETCO has filed its claim with the designated Resolution Professional. The Management has assessed the progress and status of CIRP including the number of bidders and the bid amounts and the likely recovery of the Company's dues. Further, the Management also considered the provisions of IBC as well as the broader experience of the insolvency proceedings. Notwithstanding the legal tenability of the Company's claims and litigation and without prejudice to the Company's rights to recover the aforementioned claims, the Management notes based on the facts and circumstances as of the date of issue of the financial statements, the receivable to be irrecoverable in its likelihood. Hence, the Company has written off the entire receivable of Rs. 36,577.08 Lakh in the FY 2017-18.

The same is shown under the head Exceptional Items in Statement of Profit & Loss and are claimed as an uncontrollable parameter.

Table 4.26: Exceptional Items for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Exceptional Items	-	365.77		(365.77)

Commission's Analysis

The Petitioner has claimed the Exceptional item of Rs. 365.77 Crore as bad debts written off in respect of the receivables from M/s. Essar Steel India Limited (ESIL) towards the Wheeling Charges. On perusal of the Audited Annual Accounts of GETCO, it has been observed that CIRP (Corporate Insolvency Resolution Process) of M/s. Essar Steel India Limited (ESIL) has been initiated under the Hon'ble National Company Law Tribunal, Ahmedabad. Further, from the Audited Annual Accounts of the M/s. Essar Steel India Limited (ESIL) it is observed that GETCO has filed a claim under CIRP towards the above claim and accordingly M/s. ESIL has shown the amount towards Wheeling Charges under contingent liability. As the aforesaid matter is still under litigation, it would not be appropriate at this juncture to approve the write off of bad debts of Rs. 365.77 Crore. Accordingly, the Commission has approved NIL amount against the Petitioner's claim of Rs. 365.77 Crore. The Commission is of the strong view that GETCO should exercise all the options available to it to recover the said amount from ESIL.



4.9 Contribution to Contingency Reserve for FY 2017-18

GETCO has not claimed any contribution towards Contingency Reserve as per the audited accounts in the Truing up for FY 2017-18 as detailed in the Table below:

Table 4.27: Contingency Reserve claimed by GETCO

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed
Contingency Reserve	0.00	0.00

Petitioner's Submission

Contribution to Contingency Reserve for FY 2017-18 is nil as per the audited annual accounts of GETCO, which is same as approved in the MYT Order dated 31.03.2017.

Commission's Analysis

Regulation 68.3 of the GERC (MYT) Regulations, 2016 specifies that where the Transmission Licensee has made an appropriation to the Contingency Reserve a sum not more than 0.5 percent of the original cost of fixed assets shall be allowed annually towards such appropriation in the calculation of Aggregate Revenue Requirement. As GETCO has not claimed any contribution to Contingency Reserve, the Commission approves 'nil' amount as per audited accounts FY 2017-18.

The Commission accordingly approves the contribution to Contingency Reserve as 'nil' in the Truing up for FY 2017-18.

4.10 Income Tax for FY 2017-18

GETCO has claimed the Income Tax of Rs. 123.37 Crore in the Truing up for FY 2017-18, as against Rs. 64.62 Crore approved for the year in the MYT Order dated 31.03.2017 as given in the Table below:

Table 4.28: Income Tax claimed by GETCO

Particulars	Approved in the MYT Order	Actual Claimed	Deviation + / (-)
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Particulars Approved in the MYT Order		Actual Claimed	Deviation + / (-)
Income Tax	64.62	123.37	(58.75)

Petitioner's Submission

GETCO submitted that the actual tax for FY 2017-18 is Rs.116.05 Crore (after excluding Income Tax of Rs. 1.99 Crore pertaining to SLDC from the consolidated tax of Rs. 118.03 Crore).

Further, GETCO has paid actual Income Tax of Rs. 83.11 Crore in FY 2015-16 however, it had claimed only Rs. 64.62 Crore in the True up Petition inadvertently. Therefore, the differential tax of Rs. 18.49 Crore is claimed in the True up of FY 2017-18. Similarly, GETCO had claimed actual Income Tax of Rs. 39.74 Crore in True up for FY 2016-17. However, the Commission had approved Income Tax of Rs. 50.91 Crore as per the audited accounts. Therefore, GETCO has negated the differential tax of Rs. 11.17 Crore in the True up of FY 2017-18. Accordingly, GETCO has claimed an additional Income Tax of Rs. 7.32 Crore after netting off the differential tax liability for FY 2015-16 and FY 2016-17, over and above the actual tax paid for FY 2017-18 as shown in the following table:

Table 4.29: Details of Income Tax claimed for 2017-18

(Rs. Crore)

Particulars	Amount
Actual Tax Paid for FY 2015-16 (excluding SLDC)	83.11
Tax for FY 2015-16 claimed by GETCO	64.62
Tax for FY 2015-16 approved by GERC	64.62
Unclaimed Tax for FY 2015-16	18.49
Actual Tax Paid for FY 2016-17 (excluding SLDC)	39.74
Tax for FY 2016-17 claimed by GETCO	39.74
Tax for FY 2016-17 approved by GERC	50.91
Unclaimed Tax for FY 2016-17	(11.17)
Net unclaimed Tax for FY 2015-16 and FY 2016-17 combined (to be claimed in Truing up of FY 2017-18) – A	7.32
Actual Tax Paid for FY 2017-18 GETCO (consolidated)	118.03
Less: Actual Tax Paid for FY 2017-18 SLDC	1.99



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Particulars	Amount
Net Tax of GETCO for FY 2017-18 – B	116.05
Total Tax Claim for FY 2017-18 in Truing up - C = A + B	123.37

Commission's Analysis

The Commission has observed that the current tax expense as per the audited accounts is Rs 116.20 Crore (after excluding Income Tax of Rs 1.99 Crore for SLDC and reducing Rs. 0.90 Crore towards Interest). Further, the Petitioner has submitted that it has paid actual Income Tax of Rs. 83.11 Crore in FY 2015-16 however, it had claimed only Rs. 64.62 Crore in the True up Petition and therefore, the differential tax of Rs. 18.49 Crore is claimed in the True up of FY 2017-18. Moreover, the actual Income Tax of Rs. 39.74 Crore was claimed in True up for FY 2016-17 but the Commission had approved Income Tax of Rs. 50.91 Crore as per the audited accounts. Thus, the Petitioner after negating the differential tax of Rs. 11.17 Crore in the True up of FY 2017-18 has claimed an amount of Rs. 7.32 Crore after netting off the differential tax liability amount for FY 2015-16 and FY 2016-17 over and above Rs. 116.05 Crore of FY 2017-18 thus totalling to total tax claim of Rs. 123.37 Crore.

The Commission notes that the above claim of the Petitioner of Income Tax is on the basis of actual Income Tax paid (challan basis) whereas the Commission has been approving from FY 2015-16 the Income Tax claim of the Petitioner while truing up on the basis of Income Tax as reflected in the audited books of account of the Petitioner in place of earlier practice of truing up on basis of actual payment made after verification of Income Tax challan for the relevant year. Thus, admitting the differential tax amount of Rs. 7.32 Crore after netting off the differential tax liability amount for FY 2015-16 and FY 2016-17 in the True up of FY 2017-18 as claimed by the Petitioner would amount to reverting back to actual payment basis.

The Commission also notes the subsequent submission made by the Petitioner that the Petitioner is making provisions for Income Tax on year on year basis and also makes payment of tax by way of advance income tax, self-assessment tax, TDS and Tax on regular assessment and the Commission has allowed the income tax paid / provided for various years on the basis of submission of proofs of payment of income tax from time to time after due verification and reconciliation. The Petitioner submitted the details of income tax provided in its books of accounts, income tax paid



and income tax approved by the Commission from FY 2009-10 up to FY 2016-17 as shown in the Table below wherein the total provision of income tax made by the Petitioner in its books of accounts is Rs. 491.56 Crore against which the Commission has approved an amount of Rs. 463.68 Crore resulting in shortfall of Rs. 27.88 Crore.

Sr.	Financial	Provision for	Payment of Income	Pass through Income Tax allowed Commission in Tariff Orders		
No.	Year	Taxation	Tax	GETCO	SLDC	Total
Α	В	С	D	E	F	G
1	2009-10	15.37	15.37	15.37	0.00	15.37
2	2010-11	55.16	10.90	10.90	0.04	10.94
3	2011-12	62.55	77.47	77.47	0.00	77.47
4	2012-13	69.42	82.61	81.00	1.60	82.61
5	2013-14	85.32	73.63	69.27	4.35	73.62
6	2014-15	86.94	86.88	83.66	3.22	86.88
7	2015-16	64.62	83.11	64.62	0.00	64.62
8	2016-17	52.18	41.01	50.91	1.27	52.18
	Total	491.56	470.98	453.20	10.48	463.68

The Commission has verified the above details from the audited accounts and noted that the provision made by the Petitioner in its books of accounts from FY 2009-10 up to FY 2016-17 is Rs. 491.56 Crore whereas the amount approved by the Commission in its various Orders towards Income Tax is Rs. 463.68 Crore resulting in shortfall of Rs. 27.88 Crore for which the Petitioner is entitled since Income Tax being pass through. Income Tax being a statutory levy, the Petitioner has no option but to pay the amount of Income Tax accounted for in the P & L Statement. The Commission, therefore, approves the Income Tax of Rs. 27.88 Crores over and above the Income Tax of FY 2017-18 of Rs. 116.20 Crore thus totaling to Rs. 144.08 Crore in the Truing up for FY 2017-18.

As regards the computation of Gain/(Loss), Regulation 22.1 (h) of 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 Table below:

Table 4.30: Gain/(Loss) approved in the Truing up for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation + / (-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Income Tax	64.62	144.08	(79.46)	-	(79.46)

4.11 Capitalisation of Expenses for FY 2017-18

GETCO has claimed actual capitalization of expenses of Rs. 220.18 Crore for FY 2017-18 as against Rs. 194.13 Crore approved for the year in MYT Order dated 31st March, 2017 as given in the Table below:

Table 4.31: Expenses Capitalised during 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
Expenses Capitalised	194.13	220.18	(26.05)

Commission's Analysis

The capitalisation of expenses consists of three elements: (i) capitalisation of interest, (ii) capitalisation of O&M expenses and (iii) capitalisation of depreciation. As far as capitalisation of interest and depreciation is concerned, these are not deducted from the ARR, since the capitalisation is considered for debt-equity and normative computation of interest on loan. As far as capitalisation of O&M expenses is concerned, it is required to be deducted from the ARR. The gross O&M expenses as per audited accounts are allowed in the ARR and, therefore, it is appropriate to consider the deduction of capitalisation of O&M expenses from the ARR.

The Commission has verified the Capitalisation of expenses and the actual O&M Expenses capitalised during FY 2017-18 as per audited accounts are Rs. 220.18 Crore, as detailed below:



Table 4.32: O&M Expenses Capitalized during 2017-18

(Rs. Crore)

Sr. No.	Particulars	Amount
1	Employees Cost	192.50
2	R&M Expenses	-
3	A&G Expenses	27.68
	Total	220.18

The Commission, accordingly, approves the Capitalisation of O&M expenses at Rs. 220.18 Crore, as per the audited annual accounts in the Truing up for FY 2017-18. The Commission considers the Capitalisation of O&M expenses as uncontrollable as shown in the Table below:

Table 4.33: Gain/(Loss) in O&M expenses capitalized approved in the Truing up

(Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation +/(-)	Gain/(Loss) Controllable Factors	Gain/(Loss) Uncontrollable Factors
O&M Expenses Capitalised	194.13	220.18	(26.05)	-	(26.05)

4.12 Non-Tariff Income for FY 2017-18

GETCO has claimed Non-Tariff Income at Rs. 277.73 Crore in the Truing up for FY 2017-18, as against Rs. 331.37 Crore approved for the year in the MYT Order dated 31st March, 2017 as shown in the Table below:

Table 4.34: Non-Tariff Income claimed by GETCO for 2017-18

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed	Deviation +/(-)
Non-Tariff Income	331.37	277.73	53.64

Petitioner's Submission

GETCO submitted that Non-Tariff Income includes income from investments, income from sale of scrap, parallel operation charges, reactive energy charges, O&M charges for dedicated lines and supervision charges of deposit work etc. GETCO has



also submitted the amount of deferred income of Rs. 157.28 Crore for FY 2017-18 towards grants/consumer contribution as per Audited Annual Accounts.

Commission's Analysis

The Non-Tariff Income of GETCO is Rs. 277.73 Crore after deducting the Non-Tariff Income of Rs. 7.06 Crore relating to SLDC for FY 2017-18.

The Commission, accordingly, approves the Non-Tariff Income of Rs. 277.73 Crore as actual, as per the audited annual accounts in the Truing up for FY 2017-18 as detailed in the Table below:

Table 4.35: Approved Non-Tariff Income for 2017-18

(Rs. Crore)

Sr. No.	Particulars	GETCO	SLDC	Net GETCO amount
1	Parallel Operation Charge	33.47	0.00	33.47
2	Interest Income from Fixed Deposits	0.08	-	0.08
3	Interest from Banks (other than on Fixed Deposits).	10.43	-	10.43
4	Income from Trading -Stores, Scrap etc.	9.60	-	9.60
5	Penalties received from suppliers and contractors	1.05	0.002	1.05
6	Income towards Govt. Grants/ Subsidies towards cost of capital assets (Deferred amount)	157.28	-	157.28
7	Miscellaneous Receipts	6.84	0.26	6.58
8	Misc. Charges from Consumers	14.29	6.76	7.54
9	Reactive Charges Income	11.56	-	11.56
10	Operation & Maintenance Charges	28.67	-	28.67
11	Supervision Income from execution of Deposit work	11.37	0.04	11.33
12	Gain on Sale of Fixed Assets (Net of Loss)	0.04	-	0.04
13	Grant for Energy Conservation	0.10	-	0.10
	Total	284.79	7.06	277.73

The Commission considers the Non-Tariff Income as uncontrollable and, accordingly, approves the Gain/(Loss) on Non-Tariff Income in the Truing up for FY 2017-18, as detailed in the Table below:



Table 4.36: Gain/(Loss) on Non-Tariff income approved in the Truing up for 2017-18 (Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation +/(-)	Gain/ (Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Non-Tariff Income	331.37	277.73	53.64	-	53.64

4.13 Incentive for Target availability for FY 2017-18

GETCO has claimed Incentive of Rs. 34.92 Crore for Transmission Availability in the Truing up for FY 2017-18, as against Rs. 0.00 Crore approved for the year in the MYT Order dated 31.03.2017 as shown in the Table below:

Table 4.37: Incentive for Target Availability claimed by GETCO

(Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed
Incentive on Transmission Availability	0.00	34.92

Petitioner's Submission

GETCO has achieved the availability of 99.47% for its transmission network during FY 2017-18 as certified by SLDC against the targeted availability of 98.50%. GETCO further submitted that it has computed the incentive on higher availability based on the target availability of 98.50% and the same is presented in the Table below. The incentive is calculated on Aggregate Revenue Requirement.

Table 4.38: Incentive Claimed for higher Availability

Sr. No.	Particulars	2017-18
1	Target Availability as per MYT Regulations	98.50%
2	Actual Availability	99.47%
3	Aggregate Revenue Requirement (Rs. Crore)	3,545.76
4	Incentive for Transmission System Availability (Rs. Crore)	34.92

Commission's Analysis



The Commission has verified availability of Transmission system from SLDC certificate and found availability to be 99.47%. Incentive has to be given as per the formula mentioned in Regulation 73.1 of the GERC (MYT) Regulations, 2016 as shown below:

Incentive = ATC x [Annual availability achieved – Target Availability]/ Target Availability

The Commission has accordingly worked out the incentive of Rs. 31.46 Crore for the Truing up for FY 2017-18 as detailed in the Table below:

Table 4.39: Incentive approved for higher Availability

Sr. No.	Particulars	2017-18
1	Target Availability as per MYT Regulations	98.50%
2	Actual Availability	99.47%
3	Aggregate Revenue Requirement (Rs. Crore)	3,195.02
4	Incentive for Transmission System Availability (Rs. Crore)	31.46

The Commission considers the deviation in Incentive as uncontrollable and accordingly approves the gain/(loss) in the Truing up for FY 2017-18 as given in the Table below:

Table 4.40: Gain/ (loss) approved on the Incentive in the truing up

(Rs. Crore)

Particulars	Approved in the MYT Order	Approved in the Truing up	Deviation +/(-)	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Incentive	0.00	31.46	(31.46)	-	(31.46)

4.14 Gains / (Losses) under "Truing up"

The Commission reviewed the performance of GETCO under Regulation 21 of the GERC (MYT) Regulations, 2016, with reference to the Audited Annual Accounts for FY 2017-18.



The Commission has computed the sharing of Gains and (Losses) for FY 2017-18, based on the Truing up for each of the components discussed in the above paragraphs.

The fixed charges approved for FY 2017-18 in the MYT Order dated 31.03.2017, claimed by GETCO in Truing up (Gain / (Loss)), computed in accordance with the GERC (MYT) Regulations, 2016 are given in the Table below:



Table 4.41: Approved in Truing up Order for FY 2017-18

(Rs. Crore)

Sr. No.	Fixed Charges	Approved in the MYT Order	Actual Claimed	Approved in the 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	Operations & Maintenance Expenses	1,410.70	1,332.99	1,338.23	72.47	143.69	(71.22)
2	Depreciation	1028.56	927.70	927.70	100.86		100.86
3	Interest & Finance Charges	579.13	486.84	479.00	100.13		100.13
4	Interest on Working Capital	70.35	63.89	60.86	9.49		9.49
5	Return on Equity	768.70	743.11	743.05	25.65		25.65
6	Exceptional Items	0.00	365.77	0.00	-		-
7	Total Fixed Costs	3,857.44	3,920.30	3,548.84	308.60	143.69	164.91
8	Less: Expenses Capitalised	194.13	220.18	220.18	(26.05)		(26.05)
9	Add: Provision for Tax	64.62	123.37	144.08	(79.46)		(79.46)
10	Total Transmission Charges	3,727.93	3,823.49	3,472.74	255.19	143.69	111.50
11	Less: Non-Tariff Income	331.37	277.73	277.73	53.64		53.64
12	Aggregate Revenue Requirement	3,396.55	3,545.76	3,195.02	201.55	143.69	57.85
13	Add: Incentive for Achieving Target Availability	0.00	34.92	31.46	(31.46)		(31.46)
14	Total Revenue Requirement	3,396.55	3,580.68	3,226.48	170.08	143.69	26.39

This indicates a controllable gain of Rs. 143.69 Crore and an uncontrollable gain of Rs. 26.39 Crore.



4.15 Sharing of Gains / (Losses) for FY 2017-18

The Commission has analysed the Gain/(Loss) on account of controllable and uncontrollable factors.

The relevant Regulations of the GERC (MYT) Regulations, 2016 are extracted below:

"Regulation 23. Mechanism for pass-through of gains or losses 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 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 gains or losses on account of controllable factor

- 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."

The revenue (gap)/surplus, based on the Trued-up ARR and the Gains / (Losses) approved in the Truing up for FY 2017-18, is summarised in the Table below:

Table 4.42: Revenue (Gap)/ Surplus for 2017-18

Sr. No.	Particulars	Claimed	Approved
1	ARR approved in the MYT Order dated 31.03.2017	3,396.56	3,396.55
2	Less: Gain/(loss) on Account of Uncontrollable Factors to be Passed on to the Consumers	(335.22)	26.39
3	Less: Gain/(loss) on Account of Controllable Factors to be Passed on to the Consumers (1/3 rd)	50.37	47.90
4	Revised ARR for 2017-18	3,681.41	3,322.26
5	(Gap)/Surplus	(284.86)	74.29

The Commission has arrived at a revenue surplus of Rs. 74.29 Crore in the truing up of FY 2017-18. This surplus is carried forward to ARR of FY 2019-20 for determination of transmission charges.



5 Determination of Transmission Charges for FY 2019-20

5.1 Introduction

This Chapter deals with the determination of transmission charges for FY 2019-20.

5.2 Determination of Transmission Tariff for FY 2019-20

The Table below summarizes the Annual Revenue Requirement, as approved by the Commission in the MYT Order dated 31st March, 2017 for FY 2019-20:

Table 5.1: Approved ARR for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	2019-20
1	Operation & Maintenance Expenses	1,709.77
2	Depreciation	1,242.10
3	Interest & Finance Charges	610.40
4	Interest on Working Capital	85.28
5	Return on Equity	928.19
6	Contingency Reserve	0.00
7	Total Fixed Costs	4,575.73
8	Less: Expenses Capitalized	194.13
9	Add: Provision for Tax	64.62
10	Total Transmission Charges	4,446.22
11	Less: Non-Tariff Income	331.37
12	Aggregate Revenue Requirement	4,114.85

GETCO has submitted the total loading projected for GETCO system for FY 2019-20 on realistic basis as detailed below:



Table 5.2: Total Loading in MW

Sr. No.	Stations	2017-18 Actual	2018-19 Projected	2019-20 Projected
А	GSECL Plants	5,127	5,881	5,881
В	IPPs	6,262	6,262	5,626
С	Share from Central Sector	5,478	5,684	6,110
D	CPP Wheeling	566	566	566
E	Wind Farm Capacity	5,532	5,589	6,032
F	Solar Project	1,493	1,993	1,993
G	Bio-Mass Power capacity	41	41	41
Н	Others (Small/ Mini Hydal & MSW)	21	21	52
	Total Loading in MW	24,520	26,037	26,300

The Petitioner has submitted Transmission Tariff for FY 2019-20, based on the truing up of FY 2017-18. The Commission has determined the revenue (gap)/surplus, based on the truing up of FY 2017-18.

The Petitioner's proposal and the Commission's approved Transmission Tariff for FY 2019-20 are given in Table below:

Table 5.3: Transmission Tariff for FY 2019-20

Sr. No.	Particulars	Unit	Claimed	Approved
1	Aggregate Revenue Requirement approved in Tariff Order for FY 2019-20	Rs. Crore	4,114.85	4,114.85
2	Less: Revenue (Gap)/Surplus for FY 2017-18	Rs. Crore	(284.86)	74.29
3	ARR after considering (Gap)/Surplus of true- up for FY 2017-18 (1-2)	Rs. Crore	4,399.71	4,040.56
4	Total MW allocation	MW	26300.49	26300.49
5	Transmission Tariff	Rs/MW/Day	4,583.18	4,209.06

The Commission, accordingly, approves the Annual Tariff for Transmission for FY 2019-20, as mentioned above.

Regulation 72.1 of the GERC (MYT) Regulations, 2016 has specified a formula for sharing of the Aggregate Revenue Requirement of the Transmission Licensee, as approved by the Commission, by all long-term and medium-term users of the



transmission system on monthly basis in the ratio of their respective contracted transmission capacities to the total contracted transmission capacity. Accordingly, Transmission ARR for FY 2019-20 as approved by the Commission shall be shared by all long-term and medium-term users of the transmission system on monthly basis.

Further, the Commission vide the GERC (MYT) (Second Amendment) Regulations, 2018, substituted the Regulations 72.2 and 72.3 of the principal Regulations by the Regulation 72.2 as stated below:

"72.2 For Short-term users, including the collective transactions through power exchanges, the transmission charges shall be determined in Rs. Per kWh in accordance with the following formula:

TC (Rs./kWh) = Transmission ARR + Total units wheeled,

Where,

Transmission ARR = Aggregate Revenue Requirement of the Transmission Licensee, determined in accordance with Regulation 68 of these Regulations;

Total units wheeled = Total energy units wheeled through the transmission system, which shall be equal to the total energy input into the intra-State transmission system during the financial year"

The Commission has determined Transmission ARR of Rs. 4040.56 Crore for FY 2019-20 as shown in the Table above. The Commission has taken energy input of 95445.69 MUs in Transmission System for FY 2017-18 and Transmission Capacity utilised of 22653 MW during FY 2017-18 as submitted by the Petitioner. Total estimated wheeled units during FY 2019-20 works out as 110814 MUs on proportionate basis considering the Transmission Loading Capacity of 26300.49 MW as submitted by the Petitioner. As per the above formula, transmission charges payable by the short-term users, including the collective transactions through power exchanges, works out to:

TC (Rs/kWh) = Rs. 4,040.56 Crore/ 110814 MUs

= 36.46 Ps./kWh



5.3 Reactive Energy Charges

The Petitioner in its submission subsequent to the tariff petition has submitted that the Commission in its Tariff Order dated 31.03.2018 in Petition No 1962 of 2017 had decided and approved the Reactive Energy Charges based on the drawal of reactive power from the grid by Solar energy generators, Wind energy generators, CPPs who are also consumers and not to IPPs which are generating companies and has proposed that the Commission may continue and approve the same in the present Petition. Accordingly, considering the proposal of the Petitioner to approve the Reactive Energy Charges as specified in the Tariff Order dated 31.03.2018 to be paid to GETCO for drawal of reactive energy from the grid by Solar energy generators, Wind energy generators, CPPs who are also consumers and not to IPPs which are generating companies, the Commission decides to continue the same rate as specified therein for FY 2019-20 also as reproduced in the Table below:

Table 5.4: Reactive Energy Charges

Sr. No.	Category	Approved rate
1	For the drawal of reactive energy at 10% or less of the net energy exported	10 Paise/kVARh
2	For the drawal of reactive energy at more than 10% of the net energy exported	50 Paise/kVARh



6 Compliance of Directives and New Directives

6.1 Compliance of Directives issued by the Commission

In the Tariff Orders issued by the Commission on 31st March, 2015, 31st March, 2016, 31st March, 2017 and 31st March, 2018, the Commission had given certain directives to GETCO. GETCO has submitted a report on compliance of the Directives issued by the Commission. The comments of the Commission on the submission/compliance of GETCO are given below:

6.2 Compliance of Directives issued vide Tariff Order dated 31st March, 2018

New Directive 1: Submission of peak and average loading of transmission elements

The Commission, while dealing with the objections/ suggestion of the stakeholders, has observed that many transmission elements are functioning on overloading conditions. GETCO has been directed to adhere to the Manual of CEA on Transmission Planning Criteria to avoid such overloading operation of transmission elements. The Commission has been directing GETCO to submit a report on peak and average loading of various 220 KV, 132 KV and 66 KV sub-stations. GETCO is directed to keep submitting the said reports at quarterly interval along with the report on peak loading and average loading of transmission elements. GETCO shall also apprise the Commission on quarterly basis about the transmission elements which are running in overload condition for more than two times in a calendar month.

GETCO Compliance/Action taken/initiated:

GETCO has submitted a report on average as well as peak loading of various 220 KV, 132 KV and 66 KV sub-stations in the Gujarat system for 2nd Quarter of FY 2018-19 (July 2018 to September 2018) as Annexure A.

Further, GETCO has also submitted the loading of important EHV elements during 2^{nd} Quarter of FY 2018-19 as Annexure B and EHV transmission elements which are



running in overload condition for more than two times in a calendar month during the 2nd Quarter of FY 2018-19 as Annexure C.

Commission's comments:

GETCO shall take appropriate actions to avoid such multiple overload conditions in a calendar month.

6.3 Compliance of Directives issued vide Tariff Order dated 31st March, 2017

Directive 1 and 2: Prior concurrence for any deviation in capitalization across voltage classes/schemes and quarterly submission of scheme wise progress report.

The Commission, while observing deviation in capitalization across voltage classes/ scheme, directed GETCO to have prior concurrence with due justification for any deviation in capitalization across voltage classes/schemes. Further, based on inability of GETCO to incur capitalization approved by the Commission and having deviated approved capitalization during second MYT Control Period i.e. FY 2011-12 to FY 2015-16, GETCO was directed to keep the Commission apprised about progress made in scheme-wise capitalization and also to have prior approval of the Commission while incurring CAPEX in excess of Rs. 50 Crore over the approved capitalization with due justification.

Commission's comments:

While noting the compliance of GETCO, it is to state that the said deviation has also been observed during FY 2016-17. Explanation for such deviation was sought and provided by GETCO where same reasons have been furnished by GETCO such as RoW, public/farmers protest and long delay in statutory clearances. Stakeholders have also raised the objection on deviation in capex across voltage class/ schemes which are detailed in Chapter 3 of this Order. Though, justification provided by GETCO for deviation of Capex across voltage class/ schemes have been noted, the Commission has a strong opinion that GETCO should adhere to approved Capex and should plan ahead considering the said issues being faced in laying down transmission network and also should adhere to criteria specified in the Manual of



CEA on Transmission Planning Criteria and should plan transmission network for future based on the system studies. GETCO is further directed to submit report on scheme wise physical and financial progress of voltage-class wise transmission schemes as against approved schemes in the MYT Order dated 31.03.2017, on half yearly basis regularly.

GETCO Compliance/Action taken/initiated:

GETCO plans it transmission network in line with CEA planning criteria after detail system study. Such transmission network will support existing grid condition as well as its improvement and future expansion.

Adhere to its planning, GETCO executes projects based on the system requirement & priority and incurred capital expenditure year on year basis. GETCO also monitors progress and capital expenditure of projects in detail. However, it is to submit that, the deviation in capitalization across voltage classes/ schemes can only be ascertained by GETCO at the end of project completion or at the end of financial year, where amount of asset commissioned is shifted from Capital Work in Progress to Fixed Assets. As it is known that transmission assets above 66 KV network require more than 2-3 years to complete and when it is completed/ put to use, then only it is capitalized. Before that the expenditure incurred in that transmission assets will be in Capital Work in Progress and does not reflect in capitalization. At the mid of the year GETCO is able to provide the details of capital expenditure incurred on the transmission assets under progress against approved by the Commission in MYT for FY 2016-17 to FY 2020-21.

As per the direction of the Commission to apprise about scheme-wise physical & financial progress (Rs. in Crore) of the assets approved by the Commission for the FY 2018-19 in MYT for FY 2016-17 to FY 2020-21, summary of the approved & actual capital expenditure for FY 2018-19 is as under:

Voltage Class	CAPEX Approved for FY 2018-19	CAPEX incurred for FY 2018-19	Total CAPEX Incurred till 31.8.2018 including Spill Over projects
765 KV Sub-station	14	0	0
765 KV Line	26	0	0
400 KV Sub-station	313	126	129



Voltage Class	CAPEX Approved for FY 2018-19	CAPEX incurred for FY 2018-19	Total CAPEX Incurred till 31.8.2018 including Spill Over projects
400 KV Line	628	204	211
220 KV Sub-station	414	36	124
220 KV Line	363	47	96
132 KV Sub-station	19	0	11
132 KV Line	36	0	4
66 KV Sub-station	356	130	130
66 KV Line	119	56	56
Total	2288	598	759

Detail status report of Scheme-wise physical & financial progress (Rs. in Crore) of 132 KV & above sub-stations approved by the Commission for FY 2018-19 are as under:

Voltage Class	Name of the Substation	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target	Works
765 KV	765 KV Chharodi	14	0	0	Deferred		New sub- station
1	Γotal	14	0	0			
400 KV	400 KV Chharodi (GIS)	50.00	13.98	259.04	Completed		New sub- station
400 KV	400 KV Chorania	15.00	0	0	Completed		Augmentation of existing substation
400 KV	400 KV Bhachunda (GIS)	12.88	44.46	71.61	WIP	2019-20	New sub- station
400 KV	Up- gradation of 220 KV Vav to 400 KV level (GIS)	50.00	65.06	73.48	WIP	2019-20	New sub- station
400 KV	400 KV Fedra	50.00	0.01	6.48	WIP	2019-20	New sub- station
400 KV	400 KV Bhogat	55.12	0.01	3.99	WIP	2020-21	New sub- station
400 KV	400 KV Kalavad	20.00	0	0	Yet to Award	2021-22	New sub- station



Voltage Class	Name of the Substation	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target	Works
400 KV	400 KV Achhalia	20.00	0	0	Yet to Award	2021-22	New sub- station
400 KV	400 KV Prantij	20.00	2.05	10.66	Yet to Award	2021-22	New sub- station
400 KV	400 KV Shapar	20.00	0	0.06	NIT done	2020-21	New sub- station
1	Γotal	313.00	125.57	425.32			
220 KV	400 KV Sankhari (Veloda) SS	15.47	0.1	147.36	Yet to Award	2019-20	220/132 KV system at 400 KV Sankhari S/S
220 KV	220 KV Rajula	20.00	0	0	Yet to Award	2019-20	New sub- station
220 KV	220/66 KV Bagodara	20.00	0.79	8.57	WIP	2019-20	New sub- station
220 KV	400 KV Kalavad	89.20	14.39	23.7	WIP	2019-20	New Substation (220/66 KV system in Phase-1 and 400/220 KV in Phase-2)
220 KV	220 KV Mesanka Gariyadhar	9.58	0.01	2.29	Yet to Award	2020-21	New sub- station
220 KV	220 KV Barejdi	20.00	0	1.01	Yet to Award	2020-21	New sub- station
220 KV	220 KV Virpore	24.19	0	0	NIT done	2020-21	New sub- station
220 KV	220 KV Moti Gop	30.04	6.55	24.57	WIP	2018-19	New sub- station
220 KV	Up- gradation of 132 KV Wankaner to 220 KV (GIS)	75.44	10.64	14.77	WIP	2019-20	220/66 KV system at 220 KV Wankaner S/S
220 KV	220 KV Makansar	20.00	0	4.39	Yet to Award	2021-22	New sub- station
220 KV	220 KV Vondh	17.48	0.36	5.19	WIP	2019-20	220/132 KV system at existing 220 KV Vondh S/S
220 KV	220 KV Babara	11.88	0.41	1.33	WIP	2019-20	New sub- station
220 KV	220 KV Rupkheda (Zalod)	5.00	2.05	0.00	WID	2019-20	New sub- station
220 KV	220 KV Zalod	7.82	2.05	8.29	WIP	2019-20	220/132 KV system at 220 KV Zalod S/S



Voltage Class	Name of the Substation	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target	Works
220 KV	220 KV Chiloda	16.79	0	0	Yet to Award	2021-22	220/132 KV system at 220 KV Chiloda S/S
220 KV	220 KV Talaja	5.00	0.76	1.58	Yet to Award	2020-21	New sub- station
220 KV	220 KV Gondal-II	6.36	0	1.85	Yet to Award	2021-22	New sub- station
220 KV	220 KV Sarigam (Umagam)	10.00	0	0	Yet to Award	2020-21	New sub- station
220 KV	220 KV Maglana	5.00	0	9.41	Yet to Award	2021-22	New sub- station
220 KV	220 KV Bhat (up- gradation of 66 KV to 220 KV - GIS)	5.00	0	0	Yet to Award	2020-21	New sub- station
٦	Γotal	414.25	36.06	254.31			
132 KV	132 KV Pipli	10.58	0	0	Dropped	2018-19	New Sub- station
132 KV	132/66 KV system at 132 KV Sitagadh	8.74	0	0	Completed		132/66 KV system at existing 132/11 KV Sitagadh S/S
Total		19.32	0.00	0.00			
٦	Γotal	760.57	161.63	679.63			

Scheme-wise physical & financial progress (Rs. in Crore) of 132 KV & above transmission lines approved by the Commission for FY 2018-19 in MYT for FY 2016-17 to FY 2020-21 are as under:

Voltage class	Name of Transmission line	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target
765 KV	765 KV D/C Dhuvaran- Chharodi Line	26	0	0	Deferred	
	Total	26	0	0		
400 KV	400 KV D/C Vadavi - Halvad line	20.12	1.51	5.01	WIP	2019-20
400 KV	400 KV S/C Adani - Hadala line LILO at Halvad	7.43	4.65	10.08	WIP	2018-19
400 KV	400 KV D/C Varsana -	50.00	0.92	195.41	Re-invited on	2019-20

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Voltage class	Name of Transmission line	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target
	Halvad (Quad Moose)		,	,	Risk & Cost of EPC Contractor	
400 KV	400 KV D/C Kasor - Amreli line (Quad Moose)	10.00	9.77	371.59	W I P / Severe RoW problems	2019-20
400 KV	400 KV D/C Wanakbori TPS - Soja	20.00	0	77.42	W I P / Severe RoW problems	2018-19
400 KV	LILO of existing 400 KV S/C Wankabori - Soja line at 400 KV Dehgam (PG) sub- station (Twin Moose)	8.80	3.7	13.37	WIP	2018-19
400 KV	400 KV D/C Soja - Zerda line (Twin Moose)	50.00	26.07	218.66	W I P / Severe RoW problems	2018-19
400 KV	LILO of one circuit of 400 KV D/C Ukai - Kosamba line at 400 KV Vav sub-station	15.00	14.3	56.34	WIP	2018-19
400 KV	LILO of one circuit of 400 KV D/C Jhanor - Navsari line at 400 KV Vav sub-station	8.00	14.75	21.1	WIP	2018-19
400 KV	LILO of both circuits of 400 KV D/C Mundra – Zerda line at Charanka sub-station	10.00	3.39	4.76	WIP	2018-19
400 KV	400 KV D/C Bhachunda - Varsana line	42.00	82.35	97.98	WIP	2020-21
400 KV	400 KV D/C Adani - Zerda line-1	50.00	12.09	148.92	Tender to be invited on risk & cost of EPC Contractor.	2020-21
400 KV	400 KV D/C Shapar - Fedra line (Twin Moose)	60.00	0	0	WIP	2020-21
400 KV	400 KV D/C Hadala - Shapar line (Twin Moose)	39.00	8.78	30.01	WIP	2019-20
400 KV	LILO of one ckt of 400 KV D/C Kosamba - Chorania at 400 KV Fedra	8.50	4.05	28.02	WIP / Severe RoW problems	2019-20
400 KV	LILO of one ckt of 400 KV D/C Halvad - Vadavi line at 400 KV Chharodi S/S (ACSR Twin Moose)	10.00	0	0	NIT Done	2020-21
400 KV	400 KV D/C Bhogat - Kalavad line	60.75	0	0	WIP	2020-21
400 KV	LILO of both circuits of 400 KV D/C Essar - Hadala line at 400 KV Kalavad S/S	5.00	3.05	13.92	Completed	
400 KV	LILO of both circuits of proposed 400 KV D/C Kasor - Amreli line at Fedra S/S	10.00	0	0	Yet to Award	2021-22
400 KV	LIL O of one ckt of proposed 400 KV D/C Wanakbori - Soja line at Prantij s/s	17.00	14.04	53.11	WIP	2021-22
400 KV	400 KV D/C Sankhari – Prantij	10.00	0.5	17.25	Yet to Award	2021-22
400 KV	400 KV D/C Bhachunda - Bhuj Pool (PG) line	50.00	0	0	Yet to Award	2020-21



		A	Capital	Total Capital		
Voltage class	Name of Transmission line	Approved Capital Expenditure	Expenditure (01.04.18 to 31.08.18)	Expenditure (as on 31.08.2018)	Status	Target
400 KV	LILO of both circuit of 400 KV D/C Kakrapar - Vapi (PG) line at 400 KV Chikhli sub-station (Twin Moose)	5.00	0	0	Yet to Award	2021-22
400 KV	LILO of one circuit of planned 400 KV D/C Ukai - Kosamba line at new S/S near Chikhli	5.00	0	0	Yet to Award	2021-22
400 KV	400 KV D/C Dhuvaran- Fedra (Quad) line	56.00	0	0	Dropped	
	Total	627.6	203.92	1362.95		
220 KV	LILO of one circuit of 220 KV D/C Akrimota TPS – Nakhatrana line at Bhachunda sub-station	3.90	0.52	20.89	Completed	
220 KV	220 KV D/C Vadodara(PG) – Jambuva line	7.51	3.29	5.44	WIP	2019-20
220 KV	LILO of one circuit of 220 KV D/C Moti Paneli - Sardargadh line at 220 KV Shapur sub-station	10.00	0	0	Dropped	
220 KV	LILO of one ckt of 220 KV D/C Vyankatpura - Achhalia line at 220 KV Kawant	24.94	1.13	43.52	Completed	
220 KV	LILO of 132 KV S/C Chhota Udepur - Tilakwada line at 220 KV Kawant	5.56	0	0	WIP	2019-20
220 KV	220 KV D/C Kalavad - Kangasiali	9.07	0	0	WIP	2019-20
220 KV	220 KV D/C Chorania - Botad line	14.24	1.47	3.31	WIP	2019-20
220 KV	LILO of one ckt of 220 KV D/C Amreli - Dhasa at 220 KV Botad	10.00	0	0	Completed	
220 KV	LILO of one circuit of 220 KV D/C Ukai (Thermal) - Achhalia line at 220 KV Virpore	5.57	0	0	NIT Done	2019-20
220 KV	LILO of 220 KV S/C Ukai (Thermal) - Achhalia line - 3 at 220 KV Virpore	7.93	0	0	NIT Done	2019-20
220 KV	220 KV D/C Virpore - Chikhli line	5.00	0	0	Yet to Award	2021-22
220 KV	LILO of one ckt of 132 KV D/C Dhuvaran - Dhandhuka line at 132 KV Pipli sub- station	1.38	0	0	Dropped	
220 KV	LILO of 220 KV S/C Vapi (GETCO) – Bhilad line at Chikhli sub-station	15.00	0	0	Yet to Award	2020-21
220 KV	LILO of 220 KV D/C Tebhda - Rajkot (Nyara) line at 220 KV Moti Gop sub-station	9.45	10.99	16.44	WIP	2018-19



Voltage class	Name of Transmission line	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target
220 KV	220 KV D/C Bhogat (400 KV) - Moti Gop line	12.81	0.75	11.97	WIP	2019-20
220 KV	LILO of both circuit of 220 KV D/C Kawas - Navsari (PG) line at 220 KV Vesu sub-station (220 KV U/G cable)	86.25	0	0	Yet to Award	2021-22
220 KV	LILO of one circuit of 220 KV D/C Hadala - Sartanpar line at 220 KV Wankaner sub- station	0.92	0.04	5.55	WIP	2018-19
220 KV	LILO of 220 KV S/C Lalpar - Sartanpar line at 220 KV Wankaner sub-station on M/C tower by dismantling of existing 132 KV S/C Lalpar - Wankaner line	16.80	6.68	7.18	WIP	2019-20
220 KV	LILO of one circuit of 220 KV D/C Gandhinagar TPS - Chhatral line at 400 KV Vadavi sub-station	9.15	0	0	WIP	2018-19
220 KV	LILO of one circuit of 220 KV D/C Kasor - Gavasad line at 220 KV Gotri sub-station	28.78	0	0	WIP	2019-20
220 KV	LILO of one ckt of 220 KV D/C GPEC - Karamsad line at 220 KV Bil	1.00	0	0	Yet to Award	2021-22
220 KV	LILO of one ckt of 220 KV D/C Gavasad - Salejda line at 220 KV Bil	5.00	0	0	Yet to Award	2021-22
220 KV	LILO of 220 KV S/C Chorania - Sarla & Sarla - Gondal line (due to LILO of 220 KV S/C Chorania - Gondal line at Sarla S/s) at Shapar S/S	2.51	0	0	Survey Done, Yet to award	2019-20
220 KV	220 KV Bhogat - Bhatia line	1.83	4.19	8.78	WIP	2019-20
220 KV	220 KV Bhogat - Ranavav line	12.88	8.76	30.83	WIP	2019-20
220 KV	220 KV D/C Amreli - Babara line	9.15	0	0	Re-tendered	2019-20
220 KV	220 KV D/C Babara - Gondal-II line	20.00	0	0	Yet to Award	2021-22
220 KV	220 KV D/C Babara - Shapar line	4.64	0.01	0.07	WIP	2019-20
220 KV	LILO of 220 KV S/C Kadana - Godhra line at 220 KV Zalod	5.00	8.79	33.16	WIP	2019-20
220 KV	220 KV D/C Wanakbori TPS - Zalod line along with one circuit LILO at Savdasna Muvada	10.00	0	0	Yet to Award	2021-22
220 KV	220 KV D/C Babra - Gondal- II	5.00	0	0	Yet to Award	2021-22



Voltage class	Name of Transmission line	Approved Capital Expenditure	Capital Expenditure (01.04.18 to 31.08.18)	Total Capital Expenditure (as on 31.08.2018)	Status	Target
220 KV	220 KV D/C Tappar - Vondh line instead of 220 KV D/C Vondh - Radhanpur line	2.00	0	0	Dropped	
	Total 363.27 46.62 187.14					
132 KV	LILO of circuit of 132 KV D/C Mehsana - Patan line at 400 KV Sankhari sub-station	3.71	0	0	Survey Done, Yet to award	2019-20
132 KV	132 KV S/C Sankhari (400 KV) - Deesa line	10.00	0	0	Survey Done, Yet to award	2019-20
132 KV	LILO of both circuits of 132 KV D/C Jasdan Wind farm - Jasdan line at 220 KV Babara sub-station on M/C Tower line	13.00	0	0	Retendered	2019-20
132 KV	LILO of 132 KV S/C Limkheda - Dahod line at 220 KV Zalod	2.00	0	0	NIT Done	2019-20
132 KV	132 KV D/C Limkheda - Zoz line	7.23	0	0	Dropped	
Total		35.94	0	0		
Total		1053	251	1550		

Over and above, GETCO has considered capital expenditure of Rs. 475 Crore in 66 KV Voltage level in FY 2018-19 having 89 Nos. of 66 KV sub-stations (Capex of Rs. 4 Crore per sub-station) & 700 Ckt Km of 66 KV transmission lines (Capex of Rs. 0.17 Crore per Ckt Km of Line). Against the projections, GETCO has booked the capital expenditure of Rs. 129.97 Crore in sub-stations (Rs. 356 Crore - proposed for FY 2018-19) and Rs. 56.24 Crore in transmission lines (Rs. 119 Crore - proposed for FY 2017-18) as on August, 2018. As per the past trend & experience, the capital expenditure of 66 KV Voltage schemes will speed up at the end of financial year i.e. around February & March 2019. GETCO is optimistic about achieving the target set by the Commission and will keep strong watch on the deviation in approved capital expenditure & capitalization.

Few transmission assets were spilled over from last years and considered in current FY 2018-19. Such spilled over assets, where capital expenditure has been incurred in FY 2018-19 are separately shown under spilled over Sub-stations & Transmission lines:

Spilled over Sub-stations



Sr. No.	Voltage	Name of Project	CAPEX as on 31.08.2018 (Rs. in Crore)
1	400	Asoj 400 KV S/S (Amount for 315 MVA ICT-3 & 500 MVA ICT-4 works)	0.11
2	400	400 KV Khijadiya S/S	2.70
3	400	400 KV Halvad (Mansar)	0.15
		Total (A)	2.96
1	220	220 KV Botad	0.33
2	220	220 KV Otha FB	0.72
3	220	220/66 KV Mokha S/S (P)	0.01
4	220	220 KV Amod (Upgradation 66 KV)	18.36
5	220	FB at Zanor for 220 KV Zagadia Hald. LILO Zanor line	1.47
6	220	220/66 KV Sartanpar S/S	0.03
7	220	220 KV Ghiyavad (WKR) S/S	0.02
8	220	220 KV Bhutiya - 3 bay work	0.02
9	220	220 KV Jamala bay	1.16
10	220	220/66 KV Karjan S/S	0.47
11	220	220 KV Gotri (Phase-I) Erection of various 132 KV Feeder bays at 132 KV Gotri S/S	6.18
12	220	220 KV Kawant	20.17
13	220	FB at Vyankatpura S/s (220 KV D/C Vadodara 765 KV PGCIL- Vyankatpura Line)	1.00
14	220	220 KV Khambalia (Kuvadiya) S/S	23.51
15	220	220 KV Timbadi S/S	9.53
16	220	220/66 KV Santej	0.61
17	220	220 KV Mogar	0.33
18	220	220 KV Khanpur Bay	0.08
19	220	220 KV Sarvada (Upgradation - 66 KV) S/S	0.39
20	220	220 KV Charadva	3.29
		Total (B)	87.69
1	132	132 KV Vaghasiya (prop. GIDC)	0.01
2	132	132 KV Mota Dahisarda	0.05
3	132	132 KV Wankaner S/S	10.65
4	132	132 KV Jasdan S/S	0.15
5	132	132 KV Zoz	0.04



Sr. No.	Voltage	Name of Project	CAPEX as on 31.08.2018 (Rs. in Crore)	
6	132	Vasedi 132 KV S/S (Erection of various 132 KV Transformer bays at 132 KV Vasedi S/S)	0.01	
7	132	132 KV Dhandhuka S/S Cap. Bank	0.07	
	Total (C)			
Total (A+B+C)			101.63	

Spilled over Transmission lines

Sr. No.	Voltage	Name of Project	CAPEX as on 31.08.2018 (Rs. in Crore)
1	400	OPGW 400 KV Mundra - Varsana Line	0.40
2	400	400 KV Kosamba	0.03
3	400	400 KV Kosamba - Chorania Line Bharuch Expenditure	1.44
4	400	400 KV Vadinar - Amreli Instead of (Hadala) Line - 2 (P) Jamnagar Exp.	0.27
5	400	400 LILO one Ckt 400 KV DC Kosamba Choraniya Line At 400 KV Sanand II	2.72
6	400	400 KV Mundra - Zerda Line Ckt 2 - Palanpur Expenditure	1.82
		Total (A)	6.70
1	220	220 KV Skd Sagapara Line	0.41
2	220	220 KV Dhasa Amreli Line	3.24
3	220	220 KV Tappar Morbi Line (OPGW)	1.19
4	220	220 KV Hadala Halvad Line (OPGW)	0.17
5	220	220 KV Gondal Chorania Line (OPGW)	0.68
6	220	220 KV Skd- Visavadar Line (OPGW)	0.87
7	220	220 KV Gondal- Haripar Line (OPGW)	0.54
8	220	220 KV Vallabhipur-Botad Line	0.05
9	220	220 KV Kasor- Vartej Line	0.15
10	220	LILO Of Tappar Nanikhakhar at 220 KV Kukma S/S	0.70
11	220	LILO of one Circuit of 220 KV D/C Kosamba - Mobha Line at Suva S/S (P)	0.00
12	220	220 KV LILO to Valenja Line (220 KV LILO S/C GSEG - Kim)	0.27
13	220	220 KV Zagadia Hald. LILO Zanor Line	0.02
14	220	220 KV Lalpar-S'par LILO to Wankaner (NECF Grant Project)	6.68
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Sr. No.	Voltage	Name of Project	CAPEX as on 31.08.2018 (Rs. in Crore)
15	220	220 KV Kawant	1.14
16	220	Kawant Bhekhadiya 220 KV Line	0.07
17	220	Gotri - Jambuva 220 KV Line	0.21
18	220	220 KV Godhra Wanakbori Line	3.11
19	220	220 KV Godhra - Chandrapura Line (OPGW)	0.12
20	220	220 KV Gawasad - Kosambaline (OPGW)	0.81
21	220	220 KV Asoj - Karamsad Line (OPGW)	0.27
22	220	Karjan-Gavasad 220 KV Line (OPGW)	0.18
23	220	220 KV Savadasana Muvada - 66 KV Malpur S/C Line	0.19
24	220	Termination of one D/C Line Of 220 KV 2 X D/C Achhalia - Jambuva Lines at Jarod (P)	0.92
25	220	Savdasna Muvada 220 KV LILO Line (Godhra-Kadana)	0.98
26	220	Godhra-Lunawada 220 KV Line (OPGW)	0.57
27	220	LILO of both Circuits Of 220 KV D/C Tebhda- Rajkot Line At Proposed 400 KV Kalavad Substation	1.84
28	220	220 KV D/C Visavadar - Timdi Line	0.30
29	220	220 KV Bechraji (Maruti)	0.12
30	220	220 KV Barejadi Pirana Line	2.62
31	220	220 KV Gavasad - Salejada instead of Waghodia Line (P) Nadiad Expenditure	3.27
32	220	220 KV LILO Barejadi (RNS KSD) Line	0.20
33	220	220/66 KV Popda (Bhestan) S/S (P)	0.45
34	220	220 KV Bardoli S/S (Mota)	1.40
35	220	220 KV Bhilad - Sarigam Line	3.88
36	220	220 KV Virpore - Chikhali Line	0.05
37	220	220 / 66 KV OPGY by replacing E. wire line	0.79
38	220	220 KV GSEG, Hazira - Mota Line (P)	0.31
39	220	220 KV Palanpur - Kansari DFCC Line	0.89
40	220	220 KV Veloda LILO Line (Palanpur Exp.)	0.12
41	220	220 KV Radhanpur - Sankhari (Veloda) Line	2.53
42	220	220 KV Karmasad Vartej & 220 KV Kasor Botad Line LILO at 400 KV Pachchham	1.71
43	220	220 KV Halvad (400 KV) – Chotila (Sadla) Line (P)	0.25



Sr. No.	Voltage	Name of Project	CAPEX as on 31.08.2018 (Rs. in Crore)		
44	220	220 KV Choraniya - Salejda Line	4.62		
45	220	220 KV Halvad - Mobi LILO at 400 KV Halwad S/S	0.16		
	Total (B)				
1	132	132 KV Mota Dahisarda Line	0.33		
2	132	Kawant 132 KV LILO Line	0.38		
3	132	132 KV Tilakwada-Chhotaudepur Line (OPGW)	0.29		
4	132	Tilakwada - Achhalia 132 KV Line (OPGW)	0.25		
5	132	Godhra - Vasedi 132 KV Line (OPGW)	0.41		
6	132	132 KV D/C LILO to Shapur from 132 KV Junagadh- Talala Line	0.39		
7	132	132 KV Gondal-Haripur Line LILO at Visavadar	0.79		
8	132	132 KV Ode Manjusar Line	0.38		
9	132	132 KV LILO Mehmdavad Line	0.50		
	Total (C)				
	Grand Total of Line (A+B+C)				

Further, it is to state that GETCO is not leaving any stone unturned in executing planned capital expenditure. GETCO experienced in past that it has slow progress in EHV transmission lines as compared to sub-stations. The major reasons of such slow progress resulted in to deviation/ variance from approved capital expenditure & capitalization are as under:

- Constraint of Right of Way (RoW) for transmission lines.
- Lack of suitable land for the sub-station.
- Lengthy process for statutory approvals.
- Lack of approved contractors to carryout work, etc.

Such issues were also brought to the notice of the Commission in past.

GETCO has considered above mentioned constraints and has proactively taken several steps to ensure that the abovementioned constraints will least affect GETCO in overall functioning specially in execution of transmission assets.



- Inventory management,
- Advance application for statutory clearance,
- Regular project review meetings at all levels,
- Regular monitoring of capital expenditure booking, etc.
- Start of transmission line work in advance to avoid idling of sub-station.

GETCO is taking all possible steps to control the deviation in capital expenditure & capitalization across voltage class/ scheme.

Commission's Comment:

GETCO should continue its efforts and improve upon wherever possible.

Directive 3: Submission of copies of MoUs signed with DISCOMs /copies of Management approval for 66 kV sub-stations.

Considering significant amount of Capex for 66 KV voltage-class proposed for the MYT Control Period of FY 2016-17 to FY 2020-21, GETCO was directed to submit copies of MOUs signed with DISCOMs/ copies of Management approval for 66 KV sub-stations.

Commission's comments:

Compliance of GETCO is noted. It is observed that GETCO erects new 66 KV substations as per DISCOM's requirement. However, since, every year huge chunk of capital expenditure is being incurred on creation of new 66 kV sub-stations, it is now time to look at the reasonableness of the proposals received from DISCOMs. GETCO is directed to prepare a report for all the 66 KV sub-stations commissioned since FY 2016-17 till date comprising the details of MW capacity of sub-stations and maximum loading in the year after commissioning of sub-station and submit the same to the Commission latest by 30th September, 2018.

GETCO Compliance/Action taken/initiated:



At present, GETCO is operating 1697 Nos. of 66 KV sub-stations (as on 31st March 2018) across the State. GETCO have total 207 Nos. of 66 KV substations commercialized since FY 2016-17 till July 2018 at an average of 85 Nos. of 66 KV sub-stations commercialized every year.

As earlier submitted during directive compliance, GETCO only develop new 66 KV network as per the requirement of DISCOMs after assessing increase in load growth in surrounding areas by DISCOMs. Considering DISCOMs' requirement, GETCO has created and commercialized 207 Nos. of 66 KV sub-stations across the State since FY 2016-17. Out of total 207 Nos. of 66 KV sub-stations commercialized, 69 Nos. of sub-stations have more than 20 % load against their total MVA capacity (39 Nos. of 66 KV sub-stations were commercialized in FY 2016-17, 28 Nos. of 66 KV sub-stations were commercialized in FY 2017-18 and rest were commercialized in FY 2018-19 till July 2018). As DISCOMs have already assessed the load growth while proposing 66 KV sub-stations to GETCO, the load in all the sub-stations will increase gradually as the industrial growth of the area will pick up in coming future. List of MVA capacity & maximum loading of 66 KV sub-stations commercialized since FY 2016-17 till July 2018 is attached as Annexure D.

Commission's Comments:

GETCO should ensure that new sub-stations are created only after critical assessment of load and expected future growth.

Directive 4: Calculation of Depreciation

Considering Regulation 39 of the GERC (MYT) Regulations, 2016 about charging deprecation on assets transferred under the Transfer Scheme as per the rates specified in the GERC (MYT) Regulations, 2016 for a period of 12 years from the date of Transfer Scheme and thereafter and spread the depreciation over the balance useful life of the assets and completion of period of 12 years on 31.03.2017, GETCO was directed to consider the depreciation for FY 2017-18 in accordance with the GERC (MYT) Regulations, 2016.

Commission's comments:



Compliance of GETCO is noted. The Commission shall consider depreciation in accordance with Regulation 39 of the GERC (MYT) Regulations, 2016 while truing up of FY 2017-18.

GETCO Compliance/Action taken/initiated:

As directed by the Commission, GETCO has considered depreciation in accordance with Regulation 39 of the GERC (MYT) Regulations, 2016 in truing up of FY 2017-18.

6.4 Compliance of Directives issued vide Tariff Orders dated 31st March, 2016 and 31st March, 2015

Directive 2 and 3 of Tariff Order dated 31.03.2015 & 31.03.2016: GETCO to plan their network to avoid transmission constraints and to submit quarterly report on voltage-wise peak loading.

GETCO, in the Tariff Order dated 31st March, 2015 and 31st March, 2016 was directed to submit report on reasons for the transmission constraints and area wise planning on transmission constraint elements. Further, in the Tariff Order dated 31st March, 2017, compliance on submission of report on transmission planning to avoid transmission constraints was noted and it was directed to carry out transmission planning in accordance with the CEA Transmission Planning Criteria to minimize transmission constraints and to keep the Commission informed about transmission planning being carried out to avoid such transmission constraints by 30th September, 2017. Further, based on an objection received from a stakeholder about a few transmission elements operating beyond loading capacity, it was directed to keep the Commission informed on a quarterly basis about average as well as peak loading of various 220 KV, 132 KV and 66 KV sub-stations in the Gujarat system.

Commission's Comments:

Compliance of the directive is noted. While appreciating the efforts being made by GETCO in eliminating such transmission constraints and GETCO's ability to cater maximum demand up to 15966 MW during FY 2017-18 (as on September, 2017), it is apt to mention that the Commission has again received objection from Federation of Gujarat Industries about a few transmission elements still operating in overload conditions and thus causing damage to the transmission grid. The objection and the



response of the Petitioner on the same are detailed in Chapter 3 of this order, and GETCO in the response has furnished that transmission elements in the Southern region which are operating up to its full capacity due to inoperative local generation because of high fuel cost.

GETCO has also submitted the planned work to resolve the issue of overloading of transmission line with targeted month of completion. In this regard GETCO is directed to complete the work as per the target and keep the Commission informed about the progress made in these works on quarterly basis.

GETCO Compliance/Action taken/initiated:

GETCO is submitting progress report of transmission line projects implemented to resolve the issue of overloading of transmission line. Progress report along with revised target and % work done is submitted as Annexure E.

Commission's Comments:

GETCO should ensure early completion of such projects to resolve the issue of overloading of transmission lines. GETCO should also identify other such transmission lines where overloading is observed frequently and take appropriate measures to address the issue of overloading.

6.5 New Directive:

To achieve the National target for Renewable Energy reaching up to 175 GW by the year 2022, the Commission has set RPO targets for obligatory entities up to FY 2021-22. In order to meet such targets, there would be substantial addition of solar and wind power plants at various locations in the State by the year 2022. GETCO is therefore required to make its transmission system adequate enough for evacuation of power from such generating stations. Accordingly, GETCO is directed to make necessary plans for evacuation network including sub-stations at all potential sites in consultation with DISCOMs, GEDA and the State Government and submit a report in this regard to the Commission within 3 months.



COMMISSION'S ORDER

The Commission approves the components of transmission charges and the Transmission tariff for GETCO for FY 2019-20, as shown in the Tables below:

(Rs. Crore)

Sr. No.	Particulars	2019-20
1	Operation & Maintenance Expenses	1709.77
2	Depreciation	1242.10
3	Interest & Finance Charges	610.40
4	Interest on Working Capital	85.28
5	Return on Equity	928.19
6	Contingency Reserve	0.00
7	Total Fixed Costs	4,575.73
8	Add: Provision for Tax	64.62
9	Less: Expenses Capitalized	194.13
10	Total Transmission Charges	4,446.22
11	Less: Non-Tariff Income	331.37
12	Aggregate Revenue Requirement	4,114.85
13	Add: Incentive for achieving target availability	0.00
14	Less: Revenue (Gap)/Surplus for FY 2017-18	74.29
15	Total Revenue Requirement	4,040.56

Transmission Tariff

Sr. No.	Particulars	Unit	2019-20
1	Transmission Tariff	Rs./MW/Day	4,209.06
2	Transmission Tariff for STOA	Ps./kWh	36.46

This Order shall come into force with effect from 1st May, 2019.

Sd/-	Sd/-	Sd/-		
P. J. THAKKAR	K. M. SHRINGARPURE	ANAND KUMAR		
Member	Member	Chairman		

Date: 24.04.2019 Gandhinagar



Annexure A: Report on Transmission Planning

2nd Quarter (FY 2018-19) report on loading of Substations

During 2nd Quarter (July to September) of the FY 2018-19, GETCO catered 29,724 MUs energy with maximum demand of 18,221 MW. Table mentioned below are showing energy catered & maximum demand catered by GETCO system in 2nd Quarter of FY 2018-19 against same guarter of FY 2017-18:

Sr. No.	Manth	Energy Catered (MUs)			
	Month	2017-18	2018-19		
1	July	7427	9139		
2	August	8291	9971		
3	September	9168	10614		
Total		24884	29724		

Monthly Maximum Unrestricted Demand & Maximum Demand Catered

The Maximum unrestricted demand catered and maximum demand catered by the GETCO system in 2nd Quarter of FY 2018-19 is as under:

Month	Maximum Unrestricted Demand Catered (MW)		Maximum Demand Catered (MW)		
	2017-18	2018-19	2017-18	2018-19	
July	12282	15105	12273	15084	
August	15087	16717	15108	16705	
September	15955	18221	15966	18221	

GETCO had catered maximum demand to the tune of **18221 MW** on dated **21.09.2018**.

Maximum unrestricted in 2nd Quarter of FY 2018-19 was **18221 MW** during the month September-2018 which was **14.20**% more than the previous year's unrestricted demand in the month of September - 2017 **(15955 MW)**.

GETCO had Catered maximum demand of **18221 MW** during the month of September - 2018, which was **14.12**% more than the previous year's catered demand in the month of September- 2017 **(15966 MW)**.



Monthly Energy Consumption & Maximum Energy Catered in a day Mus

Month	Monthly Energy Catered in MUs		Maximum Energy Catered in a Day in MUs		
	2017-18	2018-19	2017-18	2018-19	
July	7427	9139	268	329	
August	8291	9971	330	365	
September	9168	10614	351	403	

Total energy catered in FY 2018-19 (cumulative of 2nd quarter) is **29724 MUs**, which was 19.45% more than the previous year's energy catered during 2nd Quarter of FY 2017-18 **(24884 MUs)**.

GETCO had Catered **10614 MUs** energy during the month September - 2018, which was 15.77% more than the previous year's energy catered during the month of September - 2017 **(9168 MUs)**.

GETCO had catered Maximum energy in a day of September - 2018 to the tune of **403 MUs**, which was 14.81% more than previous year's Maximum energy in a day of September - 2017 **(351 MUs)**.

As per commissioning directives, averages & peak loading of various substations in 2nd quarter of FY 2018-19 is as below:

Average & Peak Loading of various substations in 2nd Quarter of FY 2018-19

Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
1	Bharuch	400 KV Kosamba	400	400/220	1445	843	824
2	Bharuch	400 KV Kosamba	400	220/66	200	124	114
3	Bharuch	220 KV Kim	220	220/66	400	249	237
4	Bharuch	66 KV Karanj	66	66/11	75	41	40
5	Bharuch	66 KV Pipodara	66	66/11	80	42	41
6	Bharuch	66 KV Velanja	66	66/22	45	27	26
7	Bharuch	66 KV Kosamba	66	66/22	35	22	19
8	Bharuch	66 KV Mota Borasara	66	66/11	80	46	44
9	Bharuch	66 KV Areth	66	66/11	20	14	10
10	Bharuch	66 KV Sivan	66	66/11	60	36	34
11	Bharuch	66 KV Palod II	66	66/11	30	15	14



12 13 14 15 16 17 18 19 20 21 22 23	Bharuch Bharuch Bharuch Bharuch Bharuch Jambuva Jambuva Jambuva Jambuva	66 KV Dahej 66 KV ANK "A" S/S 66 KV ANK "B" S/S 66 KV Hansot 220 KV Achhalia 66 KV Bhalod 400 KV Asoj S/S 400 KV Asoj S/S	66 66 66 220 66 400	66/11 66/22 66/22 66/22 132/66 66/11	35 80 60 20 40	18 42 31 12	17 41 30
14 15 16 17 18 19 20 21 22 23	Bharuch Bharuch Bharuch Jambuva Jambuva Jambuva	66 KV ANK "B" S/S 66 KV Hansot 220 KV Achhalia 66 KV Bhalod 400 KV Asoj S/S	66 66 220 66	66/22 66/22 132/66	60	31	30
15 16 17 18 19 20 21 22 23	Bharuch Bharuch Jambuva Jambuva Jambuva	66 KV Hansot 220 KV Achhalia 66 KV Bhalod 400 KV Asoj S/S	66 220 66	66/22 132/66	20		
16 17 18 19 20 21 22 23	Bharuch Bharuch Jambuva Jambuva Jambuva	220 KV Achhalia 66 KV Bhalod 400 KV Asoj S/S	220 66	132/66		12	10
17 18 19 20 21 22 23	Bharuch Jambuva Jambuva Jambuva	66 KV Bhalod 400 KV Asoj S/S	66		40		1
18 19 20 21 22 23	Jambuva Jambuva Jambuva	400 KV Asoj S/S		66/11		21	7
19 20 21 22 23	Jambuva Jambuva	,	400		15	9	6
20 21 22 23	Jambuva	400 KV Asoj S/S		400/220	1815	1087	1016
21 22 23			220	220/132	500	351	341
22 23	Jambuva	220 KV Vyankatpura S/S	220	220/66	200	117	96
23		220 KV Godhra	220	220/132	300	170	155
	Jambuva	220 KV Godhra	220	220/66	200	105	100
	Jambuva	220 KV Chandrapura	220	220/66	250	157	152
24	Jambuva	132 KV Dahod	132	66/11	30	17	16
25	Jambuva	66 KV Vejalpur	66	66/11	20	14	7
26	Jambuva	66 KV Halol GIDC-A	66	66/11	45	26	26
27	Jambuva	66 KV Sarasava (Purva)	66	66/11	20	11	10
28	Jambuva	66 KV Kawant	66	66/11	30	17	11
29	Jambuva	66 KV Amadla	66	66/11	15	11	5
30	Jambuva	66 KV vadoth	66	66/11	10	6	4
31	Jambuva	Gavasad	220	220/66	200	106	100
32	Jambuva	Gotri	132	132/66	240	170	140
33	Jambuva	Karjan	132	132/66	100	57	41
34	Jambuva	Kashipura	66	66/11	40	25	24
35	Jambuva	Savli	66	66/11	20	10	9
36	Jambuva	Nandesari	66	66/11	45	33	32
37	Jambuva	Tundav	66	66/11	30	16	16
38	Jambuva	Alindra	66	66/11	30	16	15
39	Jambuva	220 KV Jambuva	220	132/66	200	105	90
40		220 KV/ Washadia	220				
41	Jambuva	220 KV Waghodia	220	66/11	60	36	35

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		Name of Sub-Station	Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
42	Jambuva	Makarpura	66	66/11	60	30	25
43	Jambuva	Indrapuri	66	66/11	60	31	28
44	Jambuva	Motibaug	66	66/11	40	22	19
45	Jambuva	Gajarawadi	66	66/11	45	31	23
46	Jambuva	Sama	66	66/11	35	18	16
47	Jambuva	Waghodiya Road	66	66/11	35	18	17
48	Jambuva	Makarpura-B	66	66/11	50	25	24
49	Jamnagar	220 KV Ranavav	220	220/132	300	194	163
50	Jamnagar	220 KV Ranavav	132	132/66	250	130	107
51	Jamnagar	66 KV Ramgadh	66	66/11	20	17	13
52	Jamnagar	132 KV Bhomiyavadar	132	132/66	100	60	49
53	Jamnagar	66 KV Gunda	66	66/11	20	12	8
54	Jamnagar	66 KV Advana	66	66/11	20	13	8
55	Jamnagar	66 KV Khageshri	66	66/11	20	12	9
56	Jamnagar	66 KV Vansjaliya	66	66/11	30	17	13
57	Jamnagar	132 KV Khambhalia	132	132/66	150	77	58
58	Jamnagar	132 KV Bhatia	132	132/66	150	95	77
59	Jamnagar	66 KV Varvala	66	66/11	25	14	10
60	Jamnagar	66 KV Kalyanpur	66	66/11	30	19	14
61	Jamnagar	66 KV Vadatara	66	66/11	30	21	14
62	Jamnagar	66 KV Kanchapur	66	66/11	20	12	9
63	Jamnagar	66 KV Goinj	66	66/11	20	12	9
64	Jamnagar	220 KV Jamnagar	220	220/132	300	194	140
65	Jamnagar	220 KV Jamnagar		220/66	260	219	179
66	Jamnagar	66 KV Lalpur	66	66/11	40	26	17
67	Jamnagar	66 KV Kalavad	66	66/11	45	25	23
68	Jamnagar	66 KV Kharedi	66	66/11	30	18	13
69	Jamnagar	66 KV Mota Bhadukiya	66	66/11	20	11	9
70	Jamnagar	66 KV Navagam	66	66/11	20	10	8
71	Jamnagar	66 KV Modpar	66	66/11	20	10	9



73 J 74 J 75 J 76 J 77 J 78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar	66 KV Pipartoda 66 KV Morvadi 132 KV. Naghedi 132 KV. Naghedi 66 KV. C S.S. 66 KV TPS Sikka s/s 66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66 66 66 66 66 66 66 66	66/11 66/11 132/66 132/11 66/11 132/66 66/11 66/11 66/12 66/13 66/11 66/11 66/11 220/66	20 20 200 38 45 100 25 20 20 40 20 40 60 50	13 14 155 23 27 65 21 14 10 23 16 20 38 37	10 11 139 20 26 49 16 11 7 19 11 17 35 37
74 J 75 J 76 J 77 J 78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar	132 KV. Naghedi 132 KV. Naghedi 66 KV. C S.S. 66 KV TPS Sikka s/s 66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66 66 66 66	132/66 132/11 66/11 132/66 66/11 66/11 66/12 66/13 66/11 66/11	200 38 45 100 25 20 20 40 20 40 60	155 23 27 65 21 14 10 23 16 20 38	139 20 26 49 16 11 7 19 11 17 35
75 J 76 J 77 J 78 J 78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar	132 KV. Naghedi 66 KV. C S.S. 66 KV TPS Sikka s/s 66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66 66 66	132/11 66/11 132/66 66/11 66/11 66/12 66/13 66/11 66/11	38 45 100 25 20 20 40 20 40 60	23 27 65 21 14 10 23 16 20 38	20 26 49 16 11 7 19 11 17 35
76 J 77 J 78 J 78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M	Jamnagar	66 KV. C S.S. 66 KV TPS Sikka s/s 66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66 66	66/11 132/66 66/11 66/11 66/12 66/13 66/11 66/11	45 100 25 20 20 40 20 40 60	27 65 21 14 10 23 16 20 38	26 49 16 11 7 19 11 17 35
77 J 78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar	66 KV TPS Sikka s/s 66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66 66	132/66 66/11 66/11 66/12 66/13 66/11 66/11	100 25 20 20 40 20 40 60	65 21 14 10 23 16 20 38	49 16 11 7 19 11 17 35
78 J 79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar	66 KV Jamvanthali 66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66 66	66/11 66/11 66/12 66/13 66/11 66/11	25 20 20 40 20 40 60	21 14 10 23 16 20 38	16 11 7 19 11 17 35
79 J 80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 90 M 91 M	Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar	66 KV Banugar 66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III	66 66 66 66 66	66/11 66/12 66/13 66/11 66/11	20 20 40 20 40 60	14 10 23 16 20 38	11 7 19 11 17 35
80 J 81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M	Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar	66 KV Aliyabada 66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III Chhatral	66 66 66 66 66	66/11 66/12 66/13 66/11 66/11	20 40 20 40 60	10 23 16 20 38	7 19 11 17 35
81 J 82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar Jamnagar Jamnagar Jamnagar Jamnagar Mehsana	66 KV Hapa 66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III Chhatral	66 66 66 66	66/12 66/13 66/11 66/11	40 20 40 60	23 16 20 38	19 11 17 35
82 J 83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M	Jamnagar Jamnagar Jamnagar Jamnagar Mehsana	66 KV Morkanda 66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III Chhatral	66 66 66	66/13 66/11 66/11	20 40 60	16 20 38	11 17 35
83 J 84 J 85 J 86 M 87 M 88 M 89 M 90 M	Jamnagar Jamnagar Jamnagar Mehsana	66 KV Sat-Rasta 66 KV Jam 'B' 66 KV G.I.D.C. PH-III Chhatral	66 66 66	66/11 66/11 66/11	40 60	20 38	17 35
84 J 85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar Jamnagar Mehsana	66 KV Jam 'B' 66 KV G.I.D.C. PH-III Chhatral	66 66	66/11 66/11	60	38	35
85 J 86 M 87 M 88 M 89 M 90 M 91 M	Jamnagar Mehsana	66 KV G.I.D.C. PH-III Chhatral	66	66/11			
86 M 87 M 88 M 89 M 90 M 91 M	Mehsana	Chhatral			50	37	37
87 M 88 M 89 M 90 M 91 M			220	220/66			
88 M 89 M 90 M 91 M	Mehsana	K-I-I/NC)		220/00	400	264	252
89 M 90 M 91 M		Kalol(NG)	66	66/11	45	25	23
90 M 91 M 92 M	Mehsana	Kadi	66	66/11	45	29	26
91 N	Mehsana	Katosan Road	66	66/11	35	19	15
92 N	Mehsana	Chhatral GIDC	66	66/11	75	41	38
	Mehsana	Laxmipura	66	66/11	40	22	20
93 N	Mehsana	Sadra	66	66/11	20	11	10
	Mehsana	Dhanot	66	66/11	35	20	18
94 N	Mehsana	220 KV Kheralu	220	220/66	420	211	169
95 N	Mehsana	132 KV Sidhpur	132	132/66	190	113	102
96 N	Mehsana	66 KV Gidasan	66	66/11	30	16	14
97 N	Mehsana	66 KV Kakoshi	66	66/11	35	23	18
98 N	Mehsana	66 KV Kahoda	66	66/11	35	19	16
99 N		66 KV Khali	66	66/11	20	16	11
100 N	Mehsana		66	66/11	35	20	18
101 N	Mehsana Mehsana	66 KV Kheralu	Ī				

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Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
102	Mehsana	66 KV Kalyana	66	66/11	20	12	8
103	Mehsana	66 KV Gorad	66	66/11	20	10	7
104	Mehsana	66 KV Navasudasna	66	66/11	20	11	8
105	Mehsana	220 KV Mehsana	220	220/132	400	246	232
106	Mehsana	220 KV Mehsana	220	220/66	100	93	74
107	Mehsana	220 KV Mehsana	66	66/11	55	29	26
108	Mehsana	220 KV Mitha	220	220/66	250	188	152
109	Mehsana	66 KV Dhinoj	66	66/11	25	14	10
110	Mehsana	66 KV Bhandu	66	66/11	20	11	8
111	Mehsana	66 KV Palavasana	66	66/11	40	26	23
112	Mehsana	66 KV Nagalpur	66	66/11	40	22	20
113	Mehsana	220 KV Sankhari	220	220/66 KV	200	144	110
114	Mehsana	66 KV Balisana	66	66/11 KV	30	24	17
115	Mehsana	66 KV Manund	66	66/11 KV	20	11	9
116	Mehsana	66 KV Kimbuva	66	66/11 KV	25	15	12
117	Mehsana	66 KV Kansa	66	66/11 KV	40	21	17
118	Mehsana	66 KV Anawada	66	66/11 KV	35	19	16
119	Mehsana	66 KV Dunawada	66	66/11 KV	30	16	14
120	Mehsana	66 KV Aganwada	66	66/11 KV	35	23	19
121	Mehsana	66 KV Chanasma	66	66/11 KV	35	21	15
122	Mehsana	66 KV Adiya	66	66/11 KV	30	17	13
123	Mehsana	66 KV Rajpur	66	66/11 KV	20	11	10
124	Mehsana	Vadavi	220	220/66	300	234	228
125	Nadiad	Kapadvanj	220	220/66	200	139	114
126	Nadiad	Jinger	66	66/11	25	14	13
127	Nadiad	Salejada	220	220/66	300	222	205
128	Nadiad	Bhat	220	220/66	460	266	264
129	Nadiad	Vatva (Narol)	132	132/66	240	144	136
130	Nadiad	Navagam	66	66/11	30	20	20
131	Nadiad	Kerala	66	66/11	65	44	43



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
132	Nadiad	Koth	66	66/11	35	23	21
133	Nadiad	Changodar	66	66/11	80	47	46
134	Nadiad	Bavla	66	66/11	40	24	21
135	Nadiad	Dholka	66	66/11	30	16	16
136	Nadiad	Juvalrupvati	66	66/11	30	18	17
137	Nadiad	Dholka GIDC	66	66/11	30	20	18
138	Nadiad	Jetalpur	66	66/11	30	25	23
139	Nadiad	Moraiya	66	66/11	60	33	33
140	Nadiad	Simej	66	66/11	30	23	22
141	Nadiad	Zamp	66	66/11	20	14	11
142	Nadiad	Bhat(Sanand)	66	66/11	45	27	22
143	Nadiad	Ingoli Road	66	66/11	30	16	16
144	Nadiad	Rajoda	66	66/11	30	17	16
145	Nadiad	Ranasan	220	220/132	600	406	371
146	Nadiad	Khanpur (Dehgam)	220	220/66	300	209	170
147	Nadiad	Chiloda	132	132/11	38	27	25
148	Nadiad	Dehgam	66	66/22-66/11	25	15	13
149	Nadiad	Rakhial	66	66/11	40	27	22
150	Nadiad	Chhala	66	66/11	35	21	17
151	Nadiad	Naroda	66	66/11	75	40	39
152	Nadiad	Vehlal	66	66/11	60	32	29
153	Nadiad	Kanbha	66	66/11	45	25	23
154	Nadiad	Bahial	66	66/11	30	19	17
155	Nadiad	Halisa	66	66/11	40	21	17
156	Nadiad	Kadjodara	66	66/11	35	19	14
157	Nadiad	Bhadaj	66	66/11	45	26	24
158	Nadiad	Kuha	66	66/11	25	17	15
159	Nadiad	Dabhoda	66	66/11	20	14	10
160	Nadiad	Solankipura	66	66/11	30	16	13
161	Nadiad	Kathwada	66	66/11	45	26	25



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
162	Nadiad	Karamsad	220	220/132	300	201	175
163	Nadiad	Karamsad	220	220/66	160	86	86
164	Nadiad	Karamsad	220	220/66	100	57	54
165	Nadiad	Karamsad	220	220/66	50	28	27
166	Nadiad	Karamsad	132	132/66	150	79	60
167	Nadiad	V. V. Nagar	66	66/11	50	26	25
168	Nadiad	V. U. Nagar	66	66/11	45	23	23
169	Nadiad	Anand	66	66/11	60	34	30
170	Nadiad	Anklav	66	66/11	35	21	16
171	Nadiad	Nar	66	66/11	20	12	10
172	Nadiad	Ras	66	66/11	30	22	19
173	Nadiad	Virsad	66	66/11	25	14	12
174	Nadiad	Cambay	66	66/11	45	25	21
175	Nadiad	Kasor	400	400/220	945	639	566
176	Palanpur	Gadh	66	66/11	45	23	23
177	Palanpur	Vadgam	66	66/11	35	28	27
178	Palanpur	Danta	66	66/11	25	13	13
179	Palanpur	Iqbalgadh	66	66/11	20	14	13
180	Palanpur	Jalotra	66	66/11	30	17	15
181	Palanpur	Malan	66	66/11	20	19	18
182	Palanpur	Hebatpur (Chitrasani)	66	66/11	20	14	13
183	Palanpur	Lalawada	66	66/11	20	10	10
184	Palanpur	Basu	66	66/11	30	17	17
185	Palanpur	Jegol	66	66/11	20	15	15
186	Palanpur	Jangral	220	220/66	320	190	137
187	Palanpur	Deesa	132	66/11	40	32	27
188	Palanpur	Jangral	66	66/11	30	22	18
189	Palanpur	Samau	66	66/11	40	35	30
190	Palanpur	Motakapra	66	66/11	40	34	33
191	Palanpur	Lorwada	66	66/11	35	29	27



No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
192	Palanpur	Baiwada(Malgadh)	66	66/11	35	27	25
193	Palanpur	Shamsherpura	66	66/11	45	32	28
194	Palanpur	Shergadh	66	66/11	45	34	28
195	Palanpur	Bhildi	66	66/11	40	28	28
196	Palanpur	Vithodar	66	66/11	20	16	14
197	Palanpur	Manekpur	66	66/11	45	26	23
198	Palanpur	Ranpur	66	66/11	30	19	17
199	Palanpur	Devsari	66	66/11	25	18	17
200	Palanpur	Samdhi	66	66/11	25	19	16
201	Palanpur	Bhatsan	66	66/11	20	18	16
202	Palanpur	Dama	66	66/11	20	17	16
203	Palanpur	Balodhar	66	66/11	20	16	15
204	Palanpur	Agthala	66	66/11	35	29	27
205	Palanpur	Pechhadal	66	66/11	20	12	11
206	Palanpur	Agathala	220	220/66	300	241	223
207	Palanpur	Rasana	66	66/11	20	15	12
208	Palanpur	Kant	66	66/11	15	12	11
209	Palanpur	Raner	66	66/11	15	11	10
210	Palanpur	220 KV Deodar	220	220/66	300	220	206
211	Palanpur	Charanka	220	220/66	800	406	403
212	Palanpur	Deodar	66	66/11	40	22	20
213	Palanpur	Khoda	66	66/11	40	28	26
214	Palanpur	Raiya	66	66/11	35	20	19
215	Palanpur	Padardi	66	66/11	30	22	20
216	Palanpur	Chamanpura	66	66/11	20	12	11
217	Palanpur	Shihori	66	66/11	50	32	28
218	Palanpur	Kamboi[F]	66	66/11	40	28	24
219	Palanpur	Arniwada	66	66/11	30	18	18
220	Palanpur	Thara	66	66/11	40	32	28
221	Palanpur	Dungrasan	66	66/11	25	25	20



		Name of Sub-Station	Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
222	Palanpur	Un	66	66/11	25	18	15
223	Palanpur	Khimana	66	66/11	20	16	16
224	Palanpur	Vakha S/S	66	66/11	30	17	12
225	Palanpur	Thavar	220	220/66	250	235	209
226	Palanpur	Thavar	66	66/11	25	20	18
227	Palanpur	Zerda	66	66/11	50	25	21
228	Palanpur	Khimat	66	66/11	45	26	24
229	Palanpur	Nanameda (Ravia)	66	66/11	30	26	24
230	Palanpur	Panthwada	66	66/11	35	29	24
231	Palanpur	Ramun	66	66/11	25	21	18
232	Palanpur	Vaktapura	66	66/11	20	14	12
233	Palanpur	Asodar	66	66/11	30	27	25
234	Palanpur	Dhanera	66	66/11	35	25	24
235	Palanpur	Jadia	66	66/11	35	28	23
236	Palanpur	Rah	66	66/11	45	35	32
237	Palanpur	Kotda(Dhunsol)	66	66/11	40	32	27
238	Palanpur	Lawara	66	66/11	30	28	25
239	Palanpur	Jadiyali	66	66/11	25	24	23
240	Palanpur	Dharnodhar	66	66/11	25	20	15
241	Palanpur	Duva	66	66/11	25	18	15
242	Palanpur	Malotra	66	66/11	20	10	9
243	Palanpur	Sherpura	66	66/11	20	11	10
244	Palanpur	Chekra	66	66/11	20	17	14
245	Palanpur	Luvana	66	66/11	20	12	11
246	Palanpur	Tharad	220	220/66	360	275	240
247	Palanpur	Kotda(F)	66	66/11	40	29	26
248	Palanpur	Vadiya	66	66/11	30	25	24
249	Palanpur	Vatam	66	66/11	20	17	15
250	Palanpur	Tharad	66	66/11	30	23	21
251	Palanpur	Bhabhar	66	66/11	30	21	18



252 253 254 255 256 257 258 259 260 261 262 263 264	Palanpur Palanpur Palanpur Palanpur Palanpur Palanpur Palanpur Palanpur	Mithi Paldi Lakhani Piluda Kuvana Mera	66 66 66 66	66/11 66/11 66/11	45 50 30	26 32 21	24 28
254 255 256 257 258 259 260 261 262 263 264	Palanpur Palanpur Palanpur Palanpur Palanpur	Piluda Kuvana Mera	66	66/11			28
255 256 257 258 259 260 261 262 263 264	Palanpur Palanpur Palanpur Palanpur	Kuvana Mera			30	21	
256 257 258 259 260 261 262 263 264	Palanpur Palanpur Palanpur	Mera	66	_		۲۱	18
257 258 259 260 261 262 263 264	Palanpur Palanpur			66/11	30	23	22
258 259 260 261 262 263 264	Palanpur		66	66/11	30	20	18
259 260 261 262 263 264		Makhanu	66	66/11	30	21	19
260 261 262 263 264	Palanpur	Didarda	66	66/11	20	13	12
261 262 263 264	•	Pathamada	66	66/11	20	17	16
262 263 264	Palanpur	Kesargam	66	66/11	20	13	11
263 264	Palanpur	Balodhan	66	66/11	20	11	9
264	Palanpur	Del	66	66/11	20	12	11
	Palanpur	Kotarwada	66	66/11	10	9	8
265 0	Palanpur	Rantila	66	66/11	20	12	10
265 S	Surendranagar	400 KV Chorania	400	400/220	1500	788	676
266 S	Surendranagar	400 KV Mansar	400	400/220	630	436	400
267 S	Surendranagar	220 KV Charadava	220	220/66	200	178	155
268 S	Surendranagar	220 KV Limbdi	220	220/132	350	337	255
269 S	Surendranagar	220 KV Dudhrej	220	220/11	50	27	20
270 S	Surendranagar	220 KV Sadla	220	220/66	200	132	101
271 S	Surendranagar	132 KV Sitagadh	132	132/11	38	25	21
272 S	Surendranagar	66 KV Surendranagar	66	66/11	40	30	28
273 S	Surendranagar	66 KV Khodu	66	66/11	45	31	28
274 S	Surendranagar	66 KV Sadla	66	66/11	45	32	23
275 S	Surendranagar	66 KV Muli	66	66/11	25	15	13
276 S	Surendranagar	66 KV Sudamda	66	66/11	25	20	14
277 S	Surendranagar	66 KV Dholia	66	66/11	30	23	17
278 S	Surendranagar	66 KV Kuntalpur	66	66/11	30	17	15
279 S	-	66 KV Umarda	66	66/11	20	14	13
280 S	Surendranagar	JOIN Jillarda	1	00/11	20	14	
281 S	Surendranagar Surendranagar	66 KV Lakhanka	66	66/11	25	14	13



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
282	Surendranagar	66 KV Vadhadhara	66	66/11	25	19	17
283	Surendranagar	66 KV Dhandhalpur	66	66/11	20	14	10
284	Surendranagar	220 KV Viramgam	220	220/66	200	180	175
285	Surendranagar	66 KV Chharodi	66kv	66/11	40	23	21
286	Surendranagar	66 KV Bol	66kv	66/11	30	21	20
287	Surendranagar	220 KV Dhrangadhra	220	220/66	420	304	279
288	Surendranagar	220 KV Halvad	220	220/66	320	184	171
289	Surendranagar	66 KV Chupni	66	66/11	55	32	27
290	Surendranagar	66 KV Charadava	66	66/11	65	60	46
291	Surendranagar	66 KV Ishwarnagar	66	66/11	20	14	12
292	Surendranagar	66 KV Sara	66	66/11	55	34	30
293	Surendranagar	66 KV Bhalgamda	66	66/11	60	36	32
294	Surendranagar	66 KV Tarnetar	66	66/11	40	25	20
295	Surendranagar	66 KV Virpar	66	66/11	25	25	23
296	Surendranagar	66 KV Than-II	66	66/11	25	13	12
297	Surendranagar	66 KV Sundribhavani	66	66/11	20	11	10
298	Surendranagar	66 KV Ratanpar	66	66/11	30	20	19
299	Surendranagar	66 KV Ghanshyamgadh	66	66/11	30	23	21
300	Surendranagar	66 KV Malaniyaad	66	66/11	30	21	18
301	Surendranagar	66 KV Ranakpar	66	66/11	45	28	27
302	Surendranagar	66 KV Chandragadh	66	66/11	20	18	17
303	Surendranagar	66 KV Dhavana	66	66/11	25	22	19
304	Surendranagar	66 KV Ranmalpur	66	66/11	25	18	15
305	Surendranagar	66 KV Chuli	66	66/11	55	28	25
306	Surendranagar	66 KV Narichana	66	66/11	40	30	29
307	Surendranagar	66 KV Raigadh	66	66/11	35	20	17
308	Surendranagar	66 KV Kankavati	66	66/11	40	28	24
309	Surendranagar	66 KV Baisabgadh	66	66/11	20	12	11
310	Surendranagar	66 KV Narali	66	66/11	25	15	13
311	Surendranagar	66 KV Kondh	66	66/11	55	43	38



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
312	Surendranagar	66 KV Dhrangadhra	66	66/11	50	33	31
313	Surendranagar	66 KV Vavdi	66	66/11	53	27	23
314	Surendranagar	66 KV Bavli	66	66/11	30	16	14
315	Junagadh	Moti Paneli	220	220/66	250	142	103
316	Junagadh	Bhayavadar	132	132/66	60	48	35
317	Junagadh	Kharachiya	66	66/11	40	22	15
318	Junagadh	Jetpur A	66	66/11	50	26	24
319	Junagadh	Mandalikpur	66	66/11	20	14	8
320	Junagadh	Kolki	66	66/11	20	14	9
321	Junagadh	Moti-Paneli	66	66/11	20	11	8
322	Junagadh	Mandasan	66	66/11	20	13	8
323	Junagadh	Visavadar	220	220/66	200	148	92
324	Junagadh	Junagadh (GIDC)	66	66/11	45	31	28
325	Junagadh	Vadia	66	66/11	30	15	10
326	Junagadh	Choki	66	66/11	30	17	10
327	Junagadh	Devkigalol	66	66/11	25	15	10
328	Junagadh	Motakotda	66	66/11	40	24	12
329	Junagadh	Majewadi	66	66/11	20	14	9
330	Junagadh	Bhalgam	66	66/11	25	20	11
331	Junagadh	Navihaliyad	66	66/11	20	13	7
332	Junagadh	Vekariya	66	66/11	20	12	7
333	Junagadh	Keshod	220	220/66	300	212	129
334	Junagadh	Shapur	220	220/66	200	132	86
335	Junagadh	Keshod	66	66/11	40	26	17
336	Junagadh	Mangrol	66	66/11	40	24	18
337	Junagadh	Shil	66	66/11	20	13	9
338	Junagadh	Khirasara	66	66/11	20	17	13
339	Junagadh	Koylana	66	66/11	30	15	8
340	Junagadh	Ajab	66	66/11	40	25	14
341	Junagadh	Malia	66	66/11	40	24	13



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
342	Junagadh	Chorvad	66	66/11	40	22	18
343	Junagadh	Chuldi	66	66/11	30	26	13
344	Junagadh	Budhecha	66	66/11	20	13	9
345	Junagadh	Bhatsimroli	66	66/11	25	16	9
346	Junagadh	Agatrai	66	66/11	20	16	12
347	Junagadh	Sutrapada	66	66/11	25	15	12
348	Junagadh	Moraj	66	66/11	30	21	13
349	Junagadh	Adri	66	66/11	20	11	9
350	Junagadh	Amrapur	66	66/11	35	25	11
351	Junagadh	Ishara	66	66/11	20	11	8
352	Junagadh	Raningpara	66	66/11	25	15	8
353	Junagadh	Timbdi	220	220/132	200	121	84
354	Junagadh	Kansari	220	220/66	200	115	94
355	Junagadh	Talala	132	132/66	140	125	79
356	Junagadh	Talala	66	66/11	40	33	21
357	Junagadh	Kodinar	66	66/11	45	24	18
358	Junagadh	Una	66	66/11	40	21	15
359	Junagadh	Girgadhada	66	66/11	20	15	9
360	Junagadh	Keshriya	66	66/11	20	15	11
361	Junagadh	Bhetali	66	66/11	25	24	14
362	Junagadh	Jashadhar	66	66/11	20	11	6
363	Junagadh	Singsar[Lodhva]	66	66/11	20	12	8
364	Junagadh	Ghusiya	66	66/11	20	12	7
365	Junagadh	Ghatwad	66	66/11	25	14	10
366	Junagadh	Devli	66	66/11	20	12	9
367	Junagadh	Alidar	66	66/11	20	11	8
368	Junagadh	Sardargadh	220	220/66	250	147	89
369	Junagadh	Shapur	66	66/11	25	15	9
370	Junagadh	Kanza	66	66/11	20	11	7
371	Junagadh	Mendarda	66	66/11	45	26	11



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
372	Junagadh	Nani Khodiyar	66	66/11	20	11	5
373	Junagadh	Patanvav	66	66/11	30	17	9
374	Junagadh	Sardargadh	66	66/11	25	20	9
375	Junagadh	Moti Marad	66	66/11	25	19	11
376	Junagadh	Bantiya	66	66/11	25	18	8
377	Junagadh	Navagam	66	66/11	20	10	5
378	Junagadh	Bhader	66	66/11	20	13	7
379	Junagadh	Araniyala	66	66/11	20	13	6
380	Amreli	400 KV Amreli	400	400/220	1445	817	623
381	Amreli	400 KV Amreli	400	220/66	200	103	78
382	Amreli	Amreli-A	66	66/11	35	21	18
383	Amreli	Ankadiya	66	66/11	20	19	16
384	Amreli	Chital	66	66/11	30	23	13
385	Amreli	Gawadaka	66	66/11	20	11	8
386	Amreli	Kotada Pitha	66	66/11	25	13	7
387	Amreli	Lathi	66	66/11	40	21	12
388	Amreli	Liliya	66	66/11	25	15	9
389	Amreli	M' Pipariya	66	66/11	20	16	12
390	Amreli	Dhasa	220	220/66	260	149	103
391	Amreli	Dhasa	66	66/11	30	18	14
392	Amreli	Barwala	132	132/11	38	19	14
393	Amreli	Lakheni	66	66/11	25	13	8
394	Amreli	Lathidad	66	66/11	30	15	12
395	Amreli	Ratanpar	66	66/11	25	13	9
396	Amreli	Dharwala	66	66/11	20	12	9
397	Amreli	Malapara	66	66/11	20	14	9
398	Amreli	220 KV Otha	220	220/66	200	164	104
399	Amreli	66 KV Khuntawada	66	66/11	30	18	12
400	Amreli	66KV Mahuva	66	66/11	45	27	24
401	Amreli	66 KV Dunger	66	66/11	20	13	7



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
402	Amreli	66 KV Bagdana	66	66/11	30	26	17
403	Amreli	66 KV Pithalpur	66	66/11	20	10	8
404	Amreli	66 KV Thadach	66	66/11	30	15	10
405	Amreli	66 KV Pasvi	66	66/11	20	11	6
406	Amreli	66 KV Trapaj	66	66/11	20	11	9
407	Amreli	66 KV Belampar	66	66/11	20	10	8
408	Amreli	220 KV Savarkundla	220	220/66	360	206	148
409	Amreli	66 KV Bhader	66	66/11	25	19	12
410	Amreli	66 KV Kubda	66	66/11	20	11	6
411	Amreli	66 KV Vanda	66	66/11	20	12	9
412	Amreli	66 KV Jesar	66	66/11	20	15	13
413	Amreli	66 KV Vijapadi	66	66/11	30	22	14
414	Amreli	66 KV Gadhakada	66	66/11	20	10	7
415	Amreli	66 KV Mota-Barman	66	66/11	20	13	8
416	Amreli	66 KV Mota Samadhiyala	66	66/11	20	14	10
417	Amreli	66 KV Devala	66	66/11	20	12	7
418	Amreli	66 KV Rajula	66	66/11	25	13	9
419	Amreli	66 KV Jafrabad	66	66/11	20	11	8
420	Amreli	66 KV Ambardi	66	66/11	20	15	10
421	Amreli	220 KV Vartej	220	220/66	360	227	222
422	Amreli	220 KV Sagapara	220	220/66	300	153	124
423	Amreli	Vallabhipur	220	220/66	200	145	123
424	Amreli	Bhavnagar City	66	66/11	50	31	29
425	Amreli	Shihor	66	66/11	45	24	24
426	Amreli	Tansa	66	66/11	25	18	15
427	Amreli	Ghanghali	66	66/11	65	38	35
428	Amreli	Ghogha(Bhumbhali)	66	66/11	20	12	10
429	Amreli	Sar	66	66/11	20	12	10
430	Amreli	Mangadh	66	66/11	20	14	8
431	Amreli	Ghanghali-3	66	66/11	60	46	41



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
432	Himatnagar	Agiyol (Himatnagar)	220	220/132	250	155	94
433	Himatnagar	Agiyol (Himatnagar)	220	220/66	250	199	153
434	Himatnagar	Nikoda	66	66/11	20	13	11
435	Himatnagar	Gambhoi	66	66/11	20	12	7
436	Himatnagar	Ranasan(Sk)	66	66/11	30	15	8
437	Himatnagar	Medhasan	66	66/11	20	11	7
438	Himatnagar	Prantij	66	66/11	45	25	23
439	Himatnagar	Tajpur	66	66/11	30	26	22
440	Himatnagar	Dhansura	220	220/66	250	125	108
441	Himatnagar	Talod	132	132/66	100	80	67
442	Himatnagar	Malpur	66	66/11	25	14	11
443	Himatnagar	Meghraj	66	66/11	20	13	10
444	Himatnagar	Rozad	66	66/11	20	15	12
445	Himatnagar	Gabat	66	66/11	20	11	7
446	Himatnagar	Dalanimuvadi	66	66/11	20	17	14
447	Himatnagar	Shinawad	66	66/11	20	11	8
448	Himatnagar	Harsol	66	66/11	20	17	16
449	Himatnagar	Bhutiya (Mathasur)	220	220/66	200	152	114
450	Himatnagar	ldar	132	66/11	30	16	13
451	Himatnagar	Vadali	66	66/11	30	18	14
452	Himatnagar	Badoli	66	66/11	35	18	13
453	Himatnagar	Khedbrahma	66	66/11	30	19	14
454	Himatnagar	Jadar	66	66/11	20	14	10
455	Himatnagar	Lai-Ranasan	66	66/11	30	16	12
456	Himatnagar	Chorivad	66	66/11	30	18	14
457	Himatnagar	Panol	66	66/11	20	12	9
458	Himatnagar	Golwada	66	66/11	10	6	4
459	Himatnagar	Jamla	220	220/66	250	183	153
460	Himatnagar	Langnaj	66	66/11	35	21	18
461	Himatnagar	Naradipur	66	66/11	35	21	14



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
462	Himatnagar	Randheja	66	66/11	35	19	14
463	Himatnagar	Mansa	66	66/11	55	33	27
464	Himatnagar	Lodra	66	66/11	35	19	16
465	Himatnagar	Manekpur (Grambharti)	66	66/11	30	15	12
466	Himatnagar	Soja	66	66/11	30	17	13
467	Himatnagar	Vijapur	220	220/66	200	120	103
468	Himatnagar	Jantral	66	66/11	20	13	10
469	Himatnagar	Vihar(Kukarwada)	66	66/11	25	17	15
470	Himatnagar	Sundarpur	66	66/11	30	17	13
471	Himatnagar	Ladol	66	66/11	20	15	13
472	Himatnagar	Ranasan (GIDC)	66	66/11	25	17	15
473	Himatnagar	Charada	66	66/11	20	12	9
474	Anjar	Anjar	220	220/66	300	225	219
475	Anjar	Tappar	220	220/66	360	191	165
476	Anjar	FTZ	66	66/11	75	46	40
477	Anjar	Khedoi	66	66/11	40	25	21
478	Anjar	Dudhai	66	66/11	45	29	23
479	Anjar	Gandhidham `B'	66	66/11	45	31	26
480	Anjar	Ratnal	66	66/11	45	35	31
481	Anjar	Mithirohar	66	66/11	30	20	14
482	Anjar	Dhaneti	66	66/11	45	31	29
483	Anjar	Tharawada	66	66/11	20	16	15
484	Anjar	Kidana	66	66/11	40	27	23
485	Anjar	Kanaiyabe	66	66/11	45	30	28
486	Anjar	Vidi	66	66/11	30	16	14
487	Anjar	Varsamedi	66	66/11	30	17	16
488	Anjar	Nanikhakhar	220	220/66	300	202	191
489	Anjar	Kukma	220	220/66	200	181	162
490	Anjar	Dahinsara	66	66/11	30	16	15
491	Anjar	Kotda [Chakar]	66	66/11	35	18	17



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
492	Anjar	Madhapar	66	66/11	35	24	21
493	Anjar	Bhuj `B'	66	66/11	35	22	20
494	Anjar	Mankuva	66	66/11	25	16	15
495	Anjar	Baladiya	66	66/11	20	15	13
496	Anjar	Koday	66	66/11	25	21	20
497	Anjar	Sukhpar	66	66/11	20	11	10
498	Anjar	Chapredi	66	66/11	30	18	17
499	Anjar	Paddhar	66	66/11	30	18	13
500	Anjar	220 KV Nakhatrana	220	220/66	200	175	153
501	Anjar	Vithon	66	66/11	40	22	18
502	Anjar	Nana Nakhatrana	66	66/11	30	18	10
503	Anjar	Nakhatrana	66	66/11	50	30	24
504	Anjar	Kotda [J]	66	66/11	35	22	21
505	Anjar	Netra	66	66/11	30	25	21
506	Anjar	Gadhsisa	66	66/11	30	16	11
507	Anjar	Nanimau	66	66/11	25	14	13
508	Anjar	Kothara	66	66/11	35	23	19
509	Anjar	Naliya	66	66/11	30	16	16
510	Anjar	Parajau (Wanku)	66	66/11	25	16	15
511	Anjar	Shivlakha	220	220/66	300	213	211
512	Anjar	Samakhiyali	132	132/66	120	89	80
513	Anjar	Samakhiyali	132	132/66	20	14	10
514	Anjar	Bhachau	66	66/11	25	18	16
515	Anjar	Bhimasar	66	66/11	35	18	14
516	Anjar	Chobari	66	66/11	40	20	17
517	Anjar	Adhoi	66	66/11	45	26	22
518	Anjar	Pragpar	66	66/11	30	17	15
519	Anjar	Shikra	66	66/11	30	17	16
520	Navsari	Vav (Valthan)	220	220/66	550	370	358
521	Navsari	Mota (Bardoli)	220	220/66	360	189	143



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
522	Navsari	Kamrej	66	66/11	30	21	18
523	Navsari	Laskana	66	66/11	120	65	64
524	Navsari	Jolwa	66	66/11	70	37	35
525	Navsari	Jamkhadi	66	66/11	10	8	5
526	Navsari	66 KV Tatithaiya	66	66/11	50	29	29
527	Navsari	66 KV Kadadara(New)	66	66/11	65	42	41
528	Navsari	Тарі	66	66/22	80	51	48
529	Navsari	Sarthana	66	66/22	45	28	28
530	Navsari	Kosad	66	66/11	60	38	37
531	Navsari	Utran	66	66/11	25	13	12
532	Navsari	66 KV Navsari	66	66/11	45	24	23
533	Navsari	66 KV Maroli	66	66/11	20	10	8
534	Navsari	66 KV GETP	66	66/11	45	29	28
535	Navsari	66 KV Erthan	66	66/11	20	10	9
536	Navsari	66 KV Bilimora	66	66/11	25	18	15
537	Navsari	220 KV Popada S/S		220/66	200	128	121
538	Navsari	Bhilad	220	220/66	300	192	186
539	Navsari	Atul	220	220/66	160	110	90
540	Navsari	Vapi GIDC	66	66/11	80	46	44
541	Navsari	Atakpardi Valsad	66	66/11	40	21	19
542	Navsari	Vapi GIDC III	66	66/11	80	41	41
543	Navsari	Sarigam	66	66/11	70	49	47
544	Navsari	Dharampur	66	66/11	30	17	14
545	Navsari	Damanganga	66	66/11	35	22	19
546	Navsari	Khadki S/S	66	66/11	20	13	12
547	Navsari	Sanjan	66	66/11	20	16	16
548	Navsari	Bhilad	66	66/11	20	16	14
549	Navasari	Talangpor	220	220/66	460	350	331
550	Navasari	Bhestan	132	132/66	300	186	144
551	Navasari	Bhestan	66	66/22	120	67	66



		Name of Sub-Station	Class (KV)	Ratio in KV	capacity in MVA	Load (MVA)	Average Load (MVA)
552	Navasari	66 KV Udhna	66	66/22	80	56	55
553	Navasari	66 KV Vesu	66	66/22	75	44	32
554	Navasari	66 KV Godadara	66	66/22	100	57	55
555	Navasari	66 KV Govalak	66	66/22	70	37	36
556	Navasari	66 KV Pandesara A	66	66/22	85	55	53
557	Navasari	66 KV Pandesara B	66	66/22	95	49	47
558	Navasari	66 KV Puna	66	66/22	60	32	28
559	Navasari	66 KV Variav	66	66/11	45	27	26
560	Navasari	66 KV Sachin-A	66	66/11	75	53	50
561	Navasari	66 KV Pal	66	66/11	50	34	32
562	Navasari	66 KV Pala	66	66/11	45	23	19
563	Navasari	66 KV Sachin-C	66	66/11	60	31	30
564	Navasari	66 KV Eklera	66	66/11	20	10	9
565	Navasari	66 KV SUSM	66	66/11	45	29	27
566	Navasari	66 KV Bhatha	66	66/11	45	23	18
567	Navasari	66 KV Vadod	66	66/11	55	42	41
568	Gondal	400 KV Jetpur	400	400/220	1445	995	751
569	Gondal	400 KV Jetpur	400	220/66	300	251	169
570	Gondal	400 KV Hadala	400	400/220	945	788	424
571	Gondal	220 KV Gondal	220	220/132	400	280	230
572	Gondal	220 KV Gondal	220	132/66	200	183	140
573	Gondal	132 KV Jasdan	132	132/66	150	114	103
574	Gondal	132 KV Jasdan	132	66/11	35	22	17
575	Gondal	66 KV Sardhar	66	66/11	35	24	19
576	Gondal	66 KV Motadadva	66	66/11	35	21	16
577	Gondal	66 KV Ramod	66	66/11	30	15	11
578	Gondal	66 KV Bhadla	66	66/11	20	13	8
579	Gondal	66 KV K' S/S	66	66/11	40	24	22
580	Gondal	66 KV Kotada	66	66/11	25	17	13
581	Gondal	66 KV Hadamtala	66	66/11	35	26	25



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
582	Gondal	66 KV Jamwadi	66	66/11	30	16	15
583	Gondal	66 KV Road Pipaliya	66	66/11	30	20	19
584	Gondal	66 KV UMARALI	66	66/11	20	14	10
585	Gondal	66 KV Vasavad	66	66/11	30	20	10
586	Gondal	66 KV Moviya	66	66/11	30	22	15
587	Gondal	66 KV Derdi	66	66/11	40	28	16
588	Gondal	66 KV Mota Devaliya	66	66/11	30	20	11
589	Gondal	66 KV Shreenathgadh	66	66/11	20	11	8
590	Gondal	66 KV Sultanpur	66	66/11	20	19	11
591	Gondal	220 KV Nyara	132	220/132	250	181	165
592	Gondal	220 KV Nyara	66	220/66	320	211	191
593	Gondal	66 KV Kangasiyali	66	220/66	300	222	213
594	Gondal	132 KV Vikram	66	132/66	200	164	146
595	Gondal	132 KV Padawala	66	132/66	50	40	31
596	Gondal	66 KV Dudhsagar	11	66/11	60	35	34
597	Gondal	66 KV Kothariya	11	66/11	45	24	24
598	Gondal	66 KV Navagam	11	66/11	45	24	23
599	Gondal	66 KV GIDC	11	66/11	75	49	49
600	Gondal	66 KV Nilkanth	11	66/11	40	20	19
601	Gondal	66 KV Laxminagar	11	66/11	60	42	38
602	Gondal	66 KV University	11	66/11	45	30	25
603	Gondal	66 KV Nikawa	11	66/11	20	13	10
604	Gondal	66 KV Metoda	11	66/11	45	27	26
605	Gondal	66 KV Rotary	11	66/11	45	30	27
606	Gondal	66 KV Central	11	66/11	40	29	28
607	Gondal	66 KV Veraval	11	66/11	45	28	27
608	Gondal	66 KV Shapar	11	66/11	55	34	32
609	Gondal	66 KV Siddheshwar	11	66/11	50	45	43
610	Gondal	66 KV Vavdi	11	66/11	45	26	26
611	Gondal	66 KV Sarvoday	11	66/11	30	17	16



	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
612	Gondal	66 KV Punitnagar	11	66/11	60	42	41
613	Gondal	66 KV Popatpara	11	66/11	25	15	14
614	Gondal	66 KV Kuwadwa	11	66/11	25	21	18
615	Gondal	220 KV Sartanpar	220	220/66	320	220	210
616	Gondal	132 KV Wankaner	132	132/66	200	178	135
617	Gondal	66 KV Jadeshwar	66	66/11	30	21	18
618	Gondal	66 KV Chotila	66	66/11	30	25	21
619	Gondal	66 KV Bamanbore	66	66/11	30	16	15
620	Gondal	66 KV Dhuva	66	66/11	60	34	32
621	Gondal	66 KV Mahika	66	66/11	25	14	10
622	Gondal	66 KV Limbada	66	66/11	20	11	9
623	Gondal	66 KV Sindhavadar	66	66/11	20	11	8
624	Gondal	66 KV Thikariyali	66	66/11	20	13	11
625	Gondal	66 KV Sartanpar	66	66/11	50	39	35
626	Gondal	66 KV Lakaddhar	66	66/11	65	41	40
627	Gondal	66 KV Matel	66	66/11	30	24	21
628	Gondal	220 KV Morbi	220	220/66	300	291	271
629	Gondal	220 KV Lalpar	220	220/66	260	156	129
630	Gondal	220 KV Lalpar	220	220/132	100	51	17
631	Gondal	220 KV Lalpar	220	66/11	60	45	41
632	Gondal	66 KV Khareda	66	66/11	20	13	11
633	Gondal	66 KV Lakhdhirpur	66	66/11	60	31	29
634	Gondal	66 KV Jetpar	66	66/11	45	36	35
635	Gondal	66 KV Bela	66	66/11	80	68	57
636	Gondal	66 KV Rangpar	66	66/11	80	44	43
637	Gondal	66 KV Mahendranagar	66	66/11	50	33	29
638	Gondal	66 KV Bharatnagar	66	66/11	30	19	16
639	Gondal	66 KV Unchimandal	66	66/11	80	52	47
640	Gondal	66 KV Dungarpur	66	66/11	45	26	23
641	Gondal	66 KV Morbi-C- Lilapar	66	66/11	40	27	26



Sr. No.	Name of Circle	Name of Sub-Station	Voltage Class (KV)	Ratio in KV	Installed capacity in MVA	Maximum Load (MVA)	Average Load (MVA)
642	Gondal	66 KV Rafadeshwar	66	66/11	40	25	24
643	Gondal	66 KV Ravapar	66	66/11	20	10	8
644	Gondal	66 KV Trajpar	66	66/11	30	16	10
645	Gondal	132 KV Tankara	132	66/11	30	18	15
646	Gondal	132 KV Tankara	132	132/66	150	78	63
647	Gondal	132 KV Dhrol	132	132/66	150	77	67
648	Gondal	66 KV Padhadhari	11	66/11	30	19	17
649	Gondal	66 KV Keshiya	66	66/11	20	10	8
650	Gondal	66 KV Khengarka	66	66/11	20	11	8
651	Gondal	66 KV Lajai	66	66/11	20	15	13
652	Gondal	66 KV Morbi - B	66	66/11	40	25	23



Annexure B: Important EHV Transmission Element Loading: Peak & Average loading

	Quarter: July-2018 to Sept	ember-2018		
Sr. No.	Name of Transmission Element	Designed Capacity (DC)	Maximum Peak Loading (MW or MVA)	Average Loading (MW or MVA)
(A)	Central & South Gujarat Area			
	Pooling Sub-station – Asoj			
1	400/220 KV, 3X500 MVA, 1X315 MVA ICTs at 400 KV Asoj	1815 MVA	1087.00	1016.33
2	220/132 KV, 2X100 + 2X150 MVA ICTs 400 KV Asoj	500 MVA	351.00	341.33
3	220 KV D/C Asoj – Chandrapura	360 MW	352.00	275.33
4	132 KV D/C Asoj - Fertilizernagar line	140 MW	136.00	115.33
5	220 KV S/C Wanakbori - Godhra line	350 MW	202.00	187.33
6	220 KV D/C Asoj - Mogar line	360 MW	238.00	197.33
	Pooling Sub-station - Jambuva	000 1 11 / 1	440.00	107.57
1	220/132 KV, 3X100 MVA ICTs at 220 KV Jambuva	300 MVA	142.20	127.57
2	220 KV D/C Asoj - Jambuva line	360 MW	412.00	407.00
3	220 KV S/C Jambuva - Zagadia line	180 MW	100.00	95.15
4	220 KV S/C Jambuva - Haldarwa line	180 MW	100.31	86.02
5	220KV D/C Karamsad - Jambuva line	360 MW	110.09	100.90
6	132 KV S/C Jambuva - Karjan	70 MW	80.98	60.35
	Pooling Sub-station - Gavasad			
1	220/66 KV, 2X50+100 MVA ICTs at 220 KV Gavasad	200 MVA	106.00	100.33
2	220 KV S/C Gavasad - Kosamba	180 MW	78.00	73.00
3	220 KV S/C Gavasad - Suva line	180 MW	194.00	137.67
4	220 KV D/C Kasor - Gavasad	360 MW	263.00	239.67
	Pooling Substation - Kasor			
1	400/220 KV, 3X315 MVA at 400 KV Kasor	945 MVA	639.00	565.67
2	400 KV S/C Kasor - GPEC line	615 MW	473.00	428.00



	Quarter: July-2018 to Septe	mber-2018		
Sr. No.	Name of Transmission Element	Designed Capacity (DC)	Maximum Peak Loading (MW or MVA)	Average Loading (MW or MVA)
3	220 KV D/C Kasor - Karamsad line	360 MW	243.00	229.00
4	132 KV S/C Karamsad - Nadiad line	70 MW	106.00	99.00
	Pooling Sub-station being fed by Ukai / Kosamba/Kawas / Jhanor			
1	400/220 KV, 3X315 MVA+1X500 ICTs at 400 KV Kosamba	1445 MVA	843.00	823.67
2	220/66 KV, 2X160 MVA, 2X100 MVA, Vapi Sub-station	520 MVA	236.00	221.67
3	220/66 KV, 1X50MVA + 5X100 MVA, Vav Sub-station	550 MVA	370.10	358.06
4	220/66 KV, 1X50 + 2X100 MVA, Ambheta (Chikhli) Substation	250 MVA	116.00	101.67
5	220/66 KV, 2X100 + 1X160 MVA, Mota Sub-station	360 MVA	189.40	143.37
6	400 KV S/C Chorania - Kasor line	615 MW	436.00	276.00
7	220 KV S/C Kosamba - Vav line	180 MW	208.00	201.67
8	220 KV S/C Kosamba - Kim line No. – 1	180 MW	215.00	209.33
9	220 KV S/C Kosamba - Kim line No. – 2	180 MW	200.00	198.00
10	220 KV D/C Ukai TPS - Mota line	360 MW	415.00	391.00
11	220 KV D/C Mota - Chikhli line	360 MW	231.00	193.00
12	220 KV S/C Chikhli - Vapi line	180 MW	128.00	101.33
13	220 KV D/C Kakrapar - Vapi line	360 MW	199.00	158.67
14	220 KV D/C Jhanor TPS - Haldarwa line	360 MW	428.00	403.00
15	220 KV D/C GPEC (CLPIL) TPS - Haldarwa line	360 MW	410.00	280.67
	Pooling Sub-station – Kim			
1	220 KV S/C Kim - GSEG (PS)	180 MW	87.00	50.33
2	220 KV S/C Kim - Mora	180 MW	90.00	49.33
(B)	West Gujarat Area (Saurastra)			
	Pooling Sub-station - Chorania			
1	400/220 KV, 3X500 MVA ICTs at 400 KV Chorania	1500 MVA	789.00	647.67
2	400 KV S/C Asoj - Chorania - 1	615 MW	331.00	277.33
3	400 KV S/C Asoj - Chorania - 2	615 MW	273.00	260.33
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	Quarter: July-2018 to September-2018							
Sr. No.	Name of Transmission Element	Designed Capacity (DC)	Maximum Peak Loading (MW or MVA)	Average Loading (MW or MVA)				
4	220 KV S/C Chorania - Viramgam	180 MW	106.00	93.67				
5	220 KV S/C Chorania - Salejada line	180 MW	193.00	173.67				
	Pooling Sub-station - Hadala							
1	400/220 KV, 3X315 MVA ICTs at 400 KV Hadala	945 MVA	788.00	676.67				
2	400 KV S/C Hadala - Chorania line	615 MW	440.00	406.00				
3	220 KV (three ckt) Hadala - Nyara line	540 MW	401.00	326.67				
4	132 KV S/C Nyara - Vikram line	70 MW	85.00	74.33				
5	132 KV S/C Nyara - Vajadi line	70 MW	89.00	85.67				
6	220 KV Hadala - Kangashiyali line	180 MW	176.00	150.00				
	Pooling Sub-station - Morbi							
1	220/66 KV, 3X100 MVA ICT at 220 KV Morbi	300 MVA	291.00	271.33				
2	220/66 KV, 1X160 MVA, 1X100 MVA ICT at 220 KV Lalpar	260 MVA	156.00	129.00				
3	220 KV S/C Bhimasar - Morbi line	180 MW	137.00	119.67				
4	220 KV S/C Morbi - Lalpar line	180 MW	168.00	119.67				
	Pooling Sub-station - Jetpur							
1	400/220 KV, 1X500 + 3X315 MVA ICTs at 400 KV Jetpur	1445 MVA	995.00	750.67				
2	220 KV S/C Jetpur - Gondal line	180 MW	233.00	226.00				
3	220 KV S/C Jetpur - Shapur line	180 MW	214.00	173.67				
4	220 KV S/C Jetpur - Ranavav line	180 MW	142.00	115.67				
5	132 KV S/C Gondal - Jasdan line	70 MW	117.00	110.00				
	Pooling Sub-station - Amreli							
1	400/220 KV, 3X315 + 1X500 MVA ICTs at 400 KV Amreli	1445 MVA	817.37	623.14				
2	220 KV D/C Amreli - Savarkundla line	360 MW	428.00	396.67				
(C)	West Gujarat Area (Kutch)							
	Pooling Sub-station - Varsana							



	Quarter: July-2018 to September-2018							
Sr. No.	Name of Transmission Element	Designed Capacity (DC)	Maximum Peak Loading (MW or MVA)	Average Loading (MW or MVA)				
1	400/220 KV, 3X315 MVA 400 KV Varsana	945 MVA	482.00	437.60				
2	400 KV S/C Varsana - Hadala line	615 MW	523.00	513.67				
	Pooling Sub-station - Tappar							
1	220/66 KV, 2X100 MVA at 220 KV Tappar	200 MVA	191.41	165.35				
2	220 KV D/C Tappar - Shivlakha line	360 MW	196.00	184.67				
	Pooling Sub-station - Shivlakha							
1	220/66 KV, 3X100 MVA at 220 KV Shivlakha	300 MVA	213.00	211.33				
2	220 KV S/C Shivlakha - Sankhari line	180 MW	168.00	154.33				
3	220 KV S/C Shivlakha - Nani Hamirpur (PS) line	180 MW	157.00	147.67				
(D)	North Gujarat Area							
	Pooling Sub-station : Vadavi							
1	400/220 KV, 4X315 MVA at 400 KV Vadavi	1260 MVA	605.00	531.00				
2	220 KV S/C Vadavi - Chhatral line	180 MW	212.00	206.67				
3	220 KV D/C Charanka - Jangral line	180 MW	112.00	96.00				



Annexure C: Transmission lines running overload condition for more than 2 times in a calendar month

Transmission lines running overload condition for more than 2 times in a calendar month								
	Quarter : July-2018 to September-2018							
Sr. No.	Name of EHV Transmission line / ICT	Voltage Class	Remarks					
1	132 KV Botad-Paliyad line	132 KV						
2	132 KV Paliyad-Jasdan line	132 KV						
3	220 KV Savarkundla-Amreli-1 line	220 KV						
4	220 KV Savarkundla-Amreli-2 line	220 KV						
5	220 KV S/C Kosamba -Vav Line	220 KV						
6	220 KV S/C Kosamba - Kim line No 1	220 KV						
7	220 KV S/C Kosamba - Kim line No 2	220 KV						
8	220 KV D/C Jhanor TPS - Haldarwa line	220 KV	Evacuation Transmission Line					
9	220 KV D/C GPEC (CLPIL) TPS - Haldarwa line	220 KV						
10	220 KV S/C Asoj - Jambuva line No.1	220 KV						
11	220 KV S/C Asoj - Jambuva line No.2	220 KV						
12	132 KV Jamnagar - Khambhalia line	132 KV						
13	132 KV Bhatia Sikka line	132 KV						
14	220 KV KASOR-DHUVARAN LINE	220 KV						
15	220 KV Mota-Ukai line No.1	220 KV	Evacuation Transmission Line					
16	220 KV Mota-Ukai line No.2	220 KV	Evacuation Transmission Line					
17	220 KV Halvad-Mansar line No.1	220 KV						
18	220 KV Halvad-Mansar line No.2	220 KV						
19	132 KV Gondal – Jasdan	132 KV						
20	220 KV Jetpur-Shapur line	220 KV						



Annexure D: MVA Capacity & Maximum Loading of 66 KV Substations commercialized since FY 2016-17 till July 2018

	MVA Capacity 8	& Maximum Loading of 66	Substations co	ommercialized	since FY 201	16-17 till July 2018
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018
1	FY 2016-17	66 KV Kherali (Ratanpar)	S'nagar	06-04-2016	30	9.20
2	FY 2016-17	66 KV Laskana -2	Navsari	15-04-2016	60	35.28
3	FY 2016-17	66 KV Bhekhadiya (Bhaka)	Jambuva	24-04-2016	30	12.32
4	FY 2016-17	66 KV Khambha (Devgam)	Gondal	28-04-2016	30	8.35
5	FY 2016-17	66 KV Malarpura (Chaklasi Party)	Nadiad	02-05-2016	30	15.58
6	FY 2016-17	66 KV Samor (Kosmadi)	Bharuch	06-05-2016	30	5.80
7	FY 2016-17	66 KV Hasalpur	Mehsana	11-05-2016	30	4.40
8	FY 2016-17	66 KV Rupwada	Navsari	13-05-2016	30	3.31
9	FY 2016-17	66 KV Mota Mava	Gondal	24-05-2016	40	6.02
10	FY 2016-17	66 KV Meghpar (Morana)	Jamnagar	24-05-2016	30	4.63
11	FY 2016-17	66 KV Samatpore (Sambheti) (Dahej) (GIDC)	Bharuch	15-07-2016	30	3.20
12	FY 2016-17	66 KV Parabada (Tajpuri)	Himatnagar	21-07-2016	30	4.50
13	FY 2016-17	66 KV Balava	Jamnagar	22-07-2016	30	4.64
14	FY 2016-17	66 KV Limbodara	Himatnagar	25-07-2016	30	6.80
15	FY 2016-17	66 KV Vasantpur (Panchiyari)	Jamnagar	25-07-2016	30	5.05
16	FY 2016-17	66 KV Harshadpur(Konza)	Jamnagar	27-07-2016	30	3.41
17	FY 2016-17	66 KV Bhingrad	Amreli	30-07-2016	30	13.40
18	FY 2016-17	66 KV Limpura (Utavdi)	Bharuch	30-07-2016	30	5.50
19	FY 2016-17	66 KV Ghunada	Jamnagar	30-07-2016	30	3.78
20	FY 2016-17	66 KV Vadod	Navsari	31-07-2016	55	42.07
21	FY 2016-17	66 KV Nava Ujala (Kajuri Pipaliya)	Amreli	01-08-2016	30	6.20
22	FY 2016-17	66 KV Thol	Mehsana	01-08-2016	30	10.97



	MVA Capacity & Maximum Loading of 66 Substations commercialized since FY 2016-17 till July 2018							
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018		
23	FY 2016-17	66 KV Chiroda	Junagadh	01-08-2016	30	10.14		
24	FY 2016-17	66 KV Akhdol	Nadiad	01-08-2016	30	4.92		
25	FY 2016-17	66 KV Kankot (Kherva)	Gondal	02-08-2016	30	8.30		
26	FY 2016-17	66 KV Naranpar	Jamnagar	02-08-2016	30	3.42		
27	FY 2016-17	66 KV Wathwadi	Nadiad	02-08-2016	30	4.26		
28	FY 2016-17	66 KV Anara	Nadiad	03-08-2016	30	5.01		
29	FY 2016-17	66 KV Bhuvad (Shinay/ Mathda)	Anjar	04-08-2016	30	6.20		
30	FY 2016-17	66 KV Sachin-D	Navsari	04-08-2016	40	20.88		
31	FY 2016-17	66 KV Hathasani	Gondal	05-08-2016	30	2.28		
32	FY 2016-17	66 KV Vadad	Nadiad	06-08-2016	30	5.23		
33	FY 2016-17	66 KV Tataniya	Amreli	06-08-2016	30	3.37		
34	FY 2016-17	66 KV Kotada (Bavishi)	Jamnagar	08-08-2016	30	6.22		
35	FY 2016-17	66 KV Rumla (Amadhra)	Navsari	08-08-2016	30	5.05		
36	FY 2016-17	66 KV Vajelav (Jesavada)	Jambuva	09-08-2016	30	2.97		
37	FY 2016-17	66 KV Dwarka	Jamnagar	09-08-2016	30	7.17		
38	FY 2016-17	66 KV Bhimpor (Kanjod)	Navsari	10-08-2016	30	7.88		
39	FY 2016-17	66 KV Kapadvan (Meghpur)	Navsari	11-08-2016	30	4.50		
40	FY 2016-17	66 KV Limda Muvadi (Moti Sarsan)	Jambuva	11-08-2016	30	6.85		
41	FY 2016-17	66 KV Sadodar	Jamnagar	11-08-2016	30	4.42		
42	FY 2016-17	66 KV Ratang (Magharadi)	Junagadh	12-08-2016	30	16.23		
43	FY 2016-17	66 KV Pisawada	Nadiad	12-08-2016	30	2.63		
44	FY 2016-17	66 KV Nagra	S'nagar	12-08-2016	30	8.80		
45	FY 2016-17	66 KV Amarsar	Gondal	13-08-2016	30	11.40		
46	FY 2016-17	66 KV Valakhedi (Gothib)Vaneda	Jambuva	13-08-2016	30	4.10		
47	FY 2016-17	66 KV Vasva (Thuleta)	Nadiad	19-08-2016	30	9.00		



	MVA Capacity & Maximum Loading of 66 Substations commercialized since FY 2016-17 till July 2018							
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018		
48	FY 2016-17	66 KV Soldi	S'Nagar	22-08-2016	30	13.26		
49	FY 2016-17	66 KV Chival (Dhagadmal)	Navsari	23-08-2016	30	3.56		
50	FY 2016-17	66 KV Vav	Navsari	24-08-2016	30	4.20		
51	FY 2016-17	66 KV Juvangadh	Jamnagar	29-08-2016	30	8.84		
52	FY 2016-17	66 KV Vyara-2	Navsari	01-09-2016	30	4.90		
53	FY 2016-17	66 KV Ghanshyampur	S'nagar	02-09-2016	30	17.90		
54	FY 2016-17	66 KV Rojasar	S'nagar	03-09-2016	30	5.40		
55	FY 2016-17	66 KV Navaniya	Jamnagar	06-09-2016	30	4.44		
56	FY 2016-17	66 KV Khodapipar / Fatepur(Chanol)	Gondal	07-09-2016	30	5.80		
57	FY 2016-17	66 KV Rampura (Lalpur)	Palanpur	09-09-2016	30	4.33		
58	FY 2016-17	66 KV Rabarika	Gondal	13-09-2016	30	8.01		
59	FY 2016-17	66 KV Bhutadi	Junagadh	14-09-2016	30	5.01		
60	FY 2016-17	66 KV Sanosara	Gondal	14-09-2016	30	8.66		
61	FY 2016-17	66 KV Lakha Baval (Kansumara)	Jamnagar	22-09-2016	30	6.90		
62	FY 2016-17	66 KV Kankchiyala	Junagadh	26-09-2016	30	3.48		
63	FY 2016-17	66 KV Hudali	Amreli	28-09-2016	30	6.69		
64	FY 2016-17	66 KV Rupvati	Amreli	30-09-2016	30	7.30		
65	FY 2016-17	66 KV Jetalsar	Gondal	30-09-2016	30	7.66		
66	FY 2016-17	66 KV Vartol (Bahediya)	Himatnagar	01-10-2016	30	1.71		
67	FY 2016-17	66 KV Mesar	Mehsana	05-10-2016	30	3.25		
68	FY 2016-17	66 KV Saraya (Savadi)	Gondal	07-10-2016	30	5.80		
69	FY 2016-17	66 KV Sandhan	Anjar	16-10-2016	30	7.66		
70	FY 2016-17	66 KV Bhimasar (Tappar)	Anjar	16-10-2016	30	3.40		
71	FY 2016-17	66 KV Panchasar (Ratidevdi)	Gondal	07-11-2016	30	4.57		
72	FY 2016-17	66 KV Rampara	S'nagar	08-11-2016	30	20.91		



Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018
73	FY 2016-17	66 KV Gundasari	Junagadh	25-11-2016	30	4.77
74	FY 2016-17	66 KV Dharusan (Melusan)	Palanpur	01-12-2016	30	4.48
75	FY 2016-17	66 KV Sanathali	Gondal	20-12-2016	30	5.04
76	FY 2016-17	66 KV Nani Vahiyal	Navsari	06-01-2017	30	1.33
77	FY 2016-17	66 KV Jarakhiya (Haripura)	Amreli	09-01-2017	30	8.40
78	FY 2016-17	66 KV Ori	Bharuch	11-01-2017	30	4.62
79	FY 2016-17	66 KV Kasor	Nadiad	16-01-2017	30	5.44
80	FY 2016-17	66 KV Kadadar(Zak)	Nadiad	30-01-2017	30	9.11
81	FY 2016-17	66 KV Rampar (Beti)	Gondal	01-02-2017	30	5.99
82	FY 2016-17	66 KV Chhatral-II	Mehsana	07-02-2017	30	9.59
83	FY 2016-17	66 KV Suva	Bharuch	17-02-2017	30	1.73
84	FY 2016-17	66 KV Kant	Palanpur	01-03-2017	30	12.30
85	FY 2016-17	66 KV Navagam	Anjar	08-03-2017	30	6.60
86	FY 2016-17	66 KV Mayurnagar	S'nagar	15-03-2017	30	6.56
87	FY 2017-18	66 KV Ujediya	Himatnagar	05-04-2017	30	11.70
88	FY 2017-18	66 KV Dhrafa	Jamnagar	12-04-2017	30	5.18
89	FY 2017-18	66 KV Chetarsuba	Nadiad	14-04-2017	30	1.65
90	FY 2017-18	66 KV Gothava	Mehsana	15-04-2017	30	5.71
91	FY 2017-18	66 KV Satapar	Jamnagar	19-04-2017	30	7.06
92	FY 2017-18	66 KV Moti Ghasari (Kevadra)	Junagadh	01-05-2017	30	8.60
93	FY 2017-18	66 KV Mora (Vaneda)	Jambuva	07-05-2017	30	2.70
94	FY 2017-18	66 KV Bal (Mozda)	Bharuch	12-05-2017	30	1.41
95	FY 2017-18	66 KV Virol (Khareda)	Junagadh	12-05-2017	30	9.28
96	FY 2017-18	66 KV Tarkhanda (Panchdevla)	Jambuva	13-05-2017	30	2.51
97	FY 2017-18	66 KV Bhatib	Palanpur	15-05-2017	30	11.18



	MVA Capacity & Maximum Loading of 66 Substations commercialized since FY 2016-17 till July 2018							
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018		
98	FY 2017-18	66 KV Bhuj C	Anjar	16-05-2017	35	6.84		
99	FY 2017-18	66 KV Ranjitnagar (Nathkuva)	Jambuva	19-05-2017	30	3.30		
100	FY 2017-18	66 KV Ratanpur (kaproli)	Jambuva	24-05-2017	30	2.42		
101	FY 2017-18	66 KV Jasdan (Gokhalana)	Gondal	25-05-2017	30	4.24		
102	FY 2017-18	66 KV Sureli	Nadiad	27-05-2017	30	5.10		
103	FY 2017-18	66 KV Raygadh	Himatnagar	27-05-2017	30	6.21		
104	FY 2017-18	66 KV Bhatpur	Jambuva	27-05-2017	30	5.77		
105	FY 2017-18	66 KV Sarigam GIDC	Navsari	27-05-2017	30	8.55		
106	FY 2017-18	66 KV Akhod	Bharuch	30-05-2017	30	0.58		
107	FY 2017-18	66 KV Lakaddhar-2 (Sartanpar 2)	Gondal	01-06-2017	40	12.04		
108	FY 2017-18	66 KV Mota Varachha	Navsari	02-06-2017	40	10.86		
109	FY 2017-18	66 KV Bhogvad (Bhadod)	Bharuch	03-06-2017	30	3.19		
110	FY 2017-18	66 KV Tankara (Hadmatiya)	Gondal	03-06-2017	30	6.76		
111	FY 2017-18	66 KV Radu (Pathapur)	Nadiad	03-06-2017	30	2.00		
112	FY 2017-18	66 KV Dagala	Anjar	05-06-2017	30	11.80		
113	FY 2017-18	66 KV Manjal (Munjal)	Anjar	06-06-2017	30	7.40		
114	FY 2017-18	66 KV Astol	Navsari	08-06-2017	30	1.47		
115	FY 2017-18	66 KV Vavdi (Hariyala)	Nadiad	09-06-2017	30	4.14		
116	FY 2017-18	66 KV Sanala	Junagadh	12-06-2017	30	2.57		
117	FY 2017-18	66 KV Sutharpada	Navsari	12-06-2017	25	0.77		
118	FY 2017-18	66 KV Rozva(Sangol)	Nadiad	12-06-2017	30	4.44		
119	FY 2017-18	66 KV Galkuva	Navsari	13-06-2017	30	3.70		
120	FY 2017-18	66 KV Samarvada	Palanpur	13-06-2017	30	10.39		
121	FY 2017-18	66 KV Rayadi (Vadala)	Junagadh	14-06-2017	30	5.48		
122	FY 2017-18	66 KV Timana (Habukvad)	Amreli	15-06-2017	30	5.28		



	MVA Capacity 8	k Maximum Loading of 66	Substations co	ommercialized	since FY 201	16-17 till July 2018
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018
123	FY 2017-18	66 KV Mokhana (Bharatpur)	Jamnagar	20-06-2017	30	6.00
124	FY 2017-18	66 KV Sukhpara	Palanpur	21-06-2017	30	7.58
125	FY 2017-18	66 KV Malangdev	Navsari	22-06-2017	15	0.90
126	FY 2017-18	66 KV Surya Rampara	Gondal	23-06-2017	30	6.98
127	FY 2017-18	66 KV Rana Khirsara	Jamnagar	23-06-2017	30	8.55
128	FY 2017-18	66 KV Endla	Mehsana	27-06-2017	30	5.00
129	FY 2017-18	66 KV Bantwa	Junagadh	29-06-2017	30	9.36
130	FY 2017-18	66 KV Nagadka	S'nagar	29-06-2017	30	4.66
131	FY 2017-18	66 KV Rajpara	Jamnagar	30-06-2017	30	2.80
132	FY 2017-18	66 KV Charkha	Amreli	03-07-2017	30	11.00
133	FY 2017-18	66 KV Kothi	Gondal	03-07-2017	30	5.61
134	FY 2017-18	66 KV Paneli	Gondal	06-07-2017	30	3.77
135	FY 2017-18	66 KV Suvai (Ramvav)	Anjar	07-07-2017	30	3.40
136	FY 2017-18	66 KV Meu	Mehsana	07-07-2017	30	4.03
137	FY 2017-18	66 KV Petiya (Gundiya)Rajpara (Mokhadi)	Bharuch	08-07-2017	30	3.44
138	FY 2017-18	66 KV Asal	Himatnagar	10-07-2017	30	4.80
139	FY 2017-18	66 KV Mandal	Navsari	10-07-2017	30	2.00
140	FY 2017-18	66 KV Kumkuva (Dosavada)	Navsari	11-07-2017	30	4.80
141	FY 2017-18	66 KV Hamapar	Jamnagar	12-07-2017	30	3.11
142	FY 2017-18	66 KV Jalida (Kothi)	Gondal	13-07-2017	30	4.62
143	FY 2017-18	66 KV Kukarwada	Bharuch	19-07-2017	30	3.60
144	FY 2017-18	66 KV Ishwariya (Rupavati)	Junagadh	26-07-2017	30	7.00
145	FY 2017-18	66 KV Chandkhatal (Govindpara)	Junagadh	29-07-2017	30	13.02
146	FY 2017-18	66 KV Khirai (Maliya Miyana)	Gondal	01-08-2017	30	2.23



	MVA Capacity 8	& Maximum Loading of 66	Substations co	ommercialized	I since FY 201	6-17 till July 2018
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018
147	FY 2017-18	66 KV Thalota	Mehsana	09-08-2017	30	2.21
148	FY 2017-18	66 KV Vaghach (Gadhboriyad)	Jambuva	10-08-2017	30	4.17
149	FY 2017-18	66 KV Chhasiya	Amreli	10-08-2017	30	6.29
150	FY 2017-18	66 KV Godthal (Dhamdhuma)	Navsari	14-08-2017	30	1.47
151	FY 2017-18	66 KV Vaghpar (Gala)	Gondal	18-08-2017	40	13.08
152	FY 2017-18	66 KV Dholasan (Baliasan)	Mehsana	22-08-2017	30	5.25
153	FY 2017-18	66 KV Sargasan	Nadiad	29-08-2017	40	10.82
154	FY 2017-18	66 KV Nava Ugala	Junagadh	31-08-2017	30	3.31
155	FY 2017-18	66 KV Raner	Palanpur	06-09-2017	30	10.00
156	FY 2017-18	66 KV Jetada (Pepral)	Palanpur	07-09-2017	30	8.10
157	FY 2017-18	66 KV Chandpur	Jambuva	16-09-2017	30	1.60
158	FY 2017-18	66 KV Helodar	Himatnagar	19-09-2017	30	4.80
159	FY 2017-18	66 KV Khad Khambaliya (Khatiya)	Jamnagar	26-09-2017	30	2.96
160	FY 2017-18	66 KV Sanesh	Amreli	12-10-2017	30	2.22
161	FY 2017-18	66 KV Chalva	Palanpur	15-11-2017	30	7.80
162	FY 2017-18	66 KV Kesardi	Nadiad	22-12-2017	30	2.90
163	FY 2017-18	66 KV Nesh	Nadiad	03-01-2018	30	5.02
164	FY 2017-18	66 KV Kothariya(Solvant)	Gondal	01-02-2018	45	12.40
165	FY 2017-18	66 KV Chanaka	Junagadh	02-02-2018	30	2.44
166	FY 2017-18	66 KV Malvan	Jambuva	01-03-2018	30	1.10
167	FY 2017-18	66 KV Bor (Kantu)	Jambuva	08-03-2018	30	1.26
168	FY 2017-18	66 KV Bhadi	Amreli	09-03-2018	30	2.22
169	FY 2017-18	66 KV Jalapur	Amreli	10-03-2018	30	2.01
170	FY 2017-18	66 KV Padardi	Jambuva	19-03-2018	30	0.19
171	FY 2017-18	66 KV Kotada roha	Anjar	28-03-2018	30	5.50



	MVA Capacity & Maximum Loading of 66 Substations commercialized since FY 2016-17 till July 2018							
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018		
172	FY 2018-19	66 KV Adajan	Navsari	07-04-2018	40	6.93		
173	FY 2018-19	66 KV Ramnagar	Jamnagar	13-04-2018	30	3.81		
174	FY 2018-19	66 KV Jodavant	Jambuva	13-04-2018	30	0.57		
175	FY 2018-19	66 KV Nagka	Jamnagar	18-04-2018	30	1.20		
176	FY 2018-19	66 KV Dungra GIDC	Navsari	01-05-2018	40	0.11		
177	FY 2018-19	66 KV Soikuva	Bharuch	05-05-2018	30	0.78		
178	FY 2018-19	66 KV Kasal (Tadkeshwar)	Bharuch	05-05-2018	30	4.60		
179	FY 2018-19	66 KV Liya	S'nagar	10-05-2018	30	4.80		
180	FY 2018-19	66 KV Devisar	Anjar	19-05-2018	30	1.53		
181	FY 2018-19	66 KV Chotli Virdi (Chotli Dhar)	Junagadh	19-05-2018	30	3.00		
182	FY 2018-19	66 KV Kharoi (Ambaliyara)	Anjar	20-05-2018	30	3.60		
183	FY 2018-19	66 KV Dabhan (Nadiad)	Nadiad	22-05-2018	30	4.66		
184	FY 2018-19	66 KV Bagathala	Gondal	25-05-2018	15	1.52		
185	FY 2018-19	66 KV Vijaynagar (Hadala)	Gondal	25-05-2018	30	2.39		
186	FY 2018-19	66 KV Nagdhara	Amreli	26-05-2018	30	3.04		
187	FY 2018-19	66 KV Kundla (Hathasani)	Amreli	26-05-2018	30	3.72		
188	FY 2018-19	66 KV Bitada (Movi)	Bharuch	29-05-2018	30	0.62		
189	FY 2018-19	66 KV Karjisan	Mehsana	01-06-2018	30	4.40		
190	FY 2018-19	66 KV Aranej	Junagadh	04-06-2018	30	0.72		
191	FY 2018-19	66 KV Bhensanda (Piyava)	Jamnagar	05-06-2018	30	1.94		
192	FY 2018-19	66 KV DC-5	Anjar	05-06-2018	40	7.80		
193	FY 2018-19	66 KV Dumas	Navsari	05-06-2018	40	5.56		
194	FY 2018-19	66 KV Moti Vavdi	Junagadh	07-06-2018	30	4.36		
195	FY 2018-19	66 KV Karanjkhed	Navsari	08-06-2018	25	0.90		
196	FY 2018-19	66 KV Khokhaddad (Lothada)	Gondal	09-06-2018	30	3.12		



	MVA Capacity & Maximum Loading of 66 Substations commercialized since FY 2016-17 till July 2018								
Sr. No.	Commercialised	Name of S/S	Name of Circle	CoD	MVA Capacity of SS	Maximum Loading (in MVA) till August 2018			
197	FY 2018-19	66 KV Atkot	Gondal	11-06-2018	30	0.74			
198	FY 2018-19	66 KV Chandor	Navsari	14-06-2018	40	0.16			
199	FY 2018-19	66 KV Kavadiya	S'nagar	20-06-2018	30	8.90			
200	FY 2018-19	66 KV Nandesari	Jambuva	30-06-2018	30	1.67			
201	FY 2018-19	66 KV Prashnvada (Morasa)	Junagadh	30-06-2018	30	0.61			
202	FY 2018-19	66 KV Pandava (Parbia)	Nadiad	02-07-2018	30	0.25			
203	FY 2018-19	66 KV Dhamatvan	Nadiad	05-07-2018	30	3.98			
204	FY 2018-19	66 KV Kalyangadh	Nadiad	07-07-2018	40	1.11			
205	FY 2018-19	66 KV Bhetali (Mehru)	Himatnagar	09-07-2018	30	0.97			
206	FY 2018-19	66 KV Mitha	Mehsana	18-07-2018	30	0.50			
207	FY 2018-19	66 KV Gothan	Bharuch	23-07-2018	40	16.50			



Annexure E : Area wise Transmission Constraints

Area wise transmission constraints along with corresponding planned network are tabulated here under:

A) South & Central Gujarat area:

Sr. No.	Name of Transmission Element		
	220 KV S/C Asoj – Jambuva line	1. 220 KV D/C Vadodara (PG) – Jambuva line	June-19 (WIP – 28%)
1		2. 220 KV D/C Vadodara (PG) – Vyankatpura line	Commissioned
		 Reconfiguration of LILO arrangement to Waghodia i.e. LILO of one circuit of 220 KV D/C Achhalia – Vyankatpura (under construction) line at Waghodia instead of existing LILO of 220 KV Asoj – Jambuva line at Waghodia 	Commissioned
		Conductor Strengthening	March-20
2	220 KV S/C Wanakbori – Godhra line	Replacement of ACSR Zebra conductor with GAP conductor (high ampacity conductor)	Commissioned
3	132 KV S/C Karamsad – Nadiad	LILO of one circuit of 132 KV D/C Dhuvaran – Vatwa line at Mahemdabad.	Commissioned
	line	2. Conductor Strengthening	March 19
	220 KV S/C Kosamba – Vav line	Up-gradation of 220 KV Vav to 400 KV level	Jun-19 (WIP-65%)
4		2. LILO of one circuit of 400 KV D/C Ukai – Kosamba to Vav	Mar - 19 (WIP-89%)
		LILO of one circuit of 400 KV D/C Jhanor – Navsai (PG) line at Vav	Mar-19 (WIP-62%)
		4. 220 KV D/C Navsari (PG) – Popada line (ISTS line)	To be done under ISTS
5	220 KV D/C Ukai TPS - Mota line	220 KV D/C GSEG – Mota line: Inter connection of Utran - Kosamba charged under stop-gap arrangement (Kosamba - Mota & Utran - Mota) on 16.06.2018 as per system requirement.	Mar-20 (WIP-53%)
		2. 220/66 KV Songadh / Virpore substation	June-20 NIT done, Price bid under acceptance
	220 KV S/C Chikhli - Vapi line	3. LILO of 220 KV Ukai – Achhalia line No.2&3 at Songadh	March-20 Order Placed
6		4. 220 KV D/C Songadh – Chikhli line	March-21
		5. LILO of 220 KV S/C Vapi – Bhilad line at Chikhli	March-21



Sr. No.	Name of Transmission Element	Planned Network	Target
7	220 KV D/C Jhanor TPS - Haldarwa line	LILO of 220 KV S/C Zagadia – Haldarwa line at Jhanor TPS	March-19
8	220 KV D/C GPEC (CLPIL) TPS - Haldarwa line		(Line work completed, Feeder Bay under progress)

B) Saurashtra area:

Sr. No.	Name of Transmission Element	Planned Network	Target
1	400 KV S/C Chorania - Kasor line	1. 400 KV D/C Amreli – Kasor line	Dec-19 (WIP, Severe RoW Issue - 75%)
2	220 KV S/C Hadala – Kangasiyali	 220 KV D/C Kalavad – Kangasiyali line 220/66 KV Metoda substation 	Dec-19 (Contractual notice issued to EPC Agency for risk purchase – 78%)
3	220 KV S/C Jetpur – Gondal line	220/66 KV Gondal-II substation	March-21
4	132 KV S/C Nyara - Vikram line	4. 220/132 KV Padavala substation	June-22 June-21
5	132 KV S/C Nyara - Vajadi line		(132 KV Commissioned)
6	132 KV S/C Gondal - Jasdan line	220 KV Babara substation along with 220 KV and 132 KV lines	Mar-20 (Work awarded)
7	220 KV S/C Jetpur - Shapur line	LILO of 220 KV S/C Jetpur – Sardargadh line at Shapur 400/220 KV Keshod substation along with associated lines	Dec-19 (NIT done) (Land for substation is under acquisition)
8	220 KV S/C Chorania - Salejada line	220 KV D/C Chorania – Salejada line	June-19 (WIP – 49%)
9	132 KV S/C Bhatia – Sikka line	1. 132 KV S/C Bhatia – Bhomiavadar line	Mar-19
	ille	220 KV D/C Bhatia – Khambhalia – Kalavad line	Mar-20 (Contractual notice issued to EPC Agency for Risk Purchase – 35%)
10	132 KV S/C Khambhalia – Jamnagar line	3. 220 KV D/C Kalavad – Kangasiyali line	Dec-19 (Contractual notice issued to EPC Agency for risk purchase – 78%)
		4. 220/66 KV Khambhalia substation	Sep-20
		 Interconnection of 132 KV Bhatia – Khambhalia and 132 KV Sikka – Bhomiavadar line 	(Estimate under approval) June-19



C) Kutch area:

Sr. No.	Name of Transmission Element	Planned Network	Target
1	220 KV D/C Tappar - Shivlakha line	1. LILO of 220 KV S/C Tappar – Hadala line at	Commissioned
2	220 KV S/C Shivlakha - Sankhari line	Vondh 2. 220 KV D/C Vondh – Radhanpur line – Project changed to 220 kV D/C Tappar – Radhanpur	Dec-20
3	220 KV S/C Shivlakha – Nani Hamirpar (PS) line	line	

D) North Gujarat area:

Sr. No.	Name of Transmission Element	Planned Network	Target
1	220 KV S/C Vadavi - Chhatral line	LILO of one circuit of 220 KV D/C Gandhinagar – Chhatral line at Vadavi	Dec-18 (WIP-70%)
2	220 KV S/C Chorania - Viramgam	400/220 KV Sanand (Chharodi) substation with associated lines	Commissioned on 07.09.2018

E) Voltage Profile / Reactive Power Compensation:

Sr. No.	Name of Transmission Element	Operating voltage	Planned Network	Target
1	Low voltage profile at 220 KV level for various substations in Amreli, Junagadh & Navsari transmission circle	200-205 KV	66 KV, 380 MVAR (1 x 10 MVAR / 2 x 10 MVAR shunt capacitor bank at 38 Nos. of locations)	Mar-19 (Capacitor at 30 loc. are charged)
2	Poor power factor at 11 KV level		11 KV, 647.5 MVAR capacitor banks (22.5 MVAR in DGVCL, 57.5 MVAR in MGVCL, 72.5 MVAR in UGVCL & 495 MVAR in PGVCL area)	Mar-19 (WIP- 80%)
3	Over voltage at various 220 KV substations in Junagadh, Kutch, Jamnagar, Amreli North Gujarat area during monsoon period	235-240 KV	220 KV, 1 x 25 MVAR switchable bus reactor at 18 Nos. of 220 KV substations	17 loc. will be completed by Mar-
4	Large voltage variations surrounding 220 KV Timbdi, Dhokadava, Keshod & Visavadar substations	190-240 KV	±110 MVAR STATCOM at 220 KV Timbdi substation	Mar-19 (WIP – 65%)

