

**AGENDA NOTE
FOR
THE 26TH MEETING OF THE STATE ADVISORY COMMITTEE**

Date	17.09.2019 (Tuesday)
Time	11:30 AM
Venue	Conference Room, Office of the Gujarat Electricity Regulatory Commission, 6 th Floor, GIFT ONE, Road 5-C, GIFT City, Gandhinagar 382355, Gujarat India. Followed by Lunch at ‘the GIC’ club, GIFT City, Gandhinagar

ITEM NO.	NOTES ON AGENDA
1.	Approval of the minutes of the 25 th Meeting of the State Advisory Committee held on 10 th July, 2018
2.	Action Taken Report on the minutes of the 25 th Meeting of the State Advisory Committee
3.	Important Activities carried out by the Commission during FY 2018-19
4.	Important Activities to be carried out by the Commission during FY 2019-20
5.	Standard of Performance of Distribution Utilities for the year 2018-19
6.	Issues of the Members of the Committee
7.	Any other Item with the permission of Chair

Agenda item No. 1: Approval of the minutes of the 25th Meeting of the State Advisory Committee.

GERC vide its letter no. GERC/TECH/6918/1561 dated 04.09.2018 circulated minutes of the 25th Meeting of the State Advisory Committee held on 10th July, 2018 at Conference Room, Office of the Commission, GIFT ONE, GIFT City, Gandhinagar. Since, no comments have been received from the members, Minutes of the 25th Meeting may be treated as approved.

Agenda item No. 2: Action Taken Report on the minutes of the 25th Meeting of the State Advisory Committee.

Action Taken Report on various discussion items are as under:

Agenda Item No. 2 Issue No. 1	Details of number of JGY Feeders transferred to Industrial Feeders <u>Resolution:</u> JGY Feeders are being used to provide power supply to Industrial Consumers. It was decided to seek details of JGY Feeders transferred into Industrial Feeders.
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Distribution Utilities are invited for the meeting. Officers of the State Owned Discoms are requested to apprise the committee members in this regard.

Agenda Item No. 2 Issue No. 2	Study on Load Balancing and Grid Integration w.r.t. surging RE Power: Steps to mitigate Challenges. <u>Resolution:</u> GETCO to carry out study of loading on transmission lines and planning to tackle the grid integration problem and submit a report in this regard.
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The office of the Commission has received a report from GETCO covering Gujarat Power Scenario, Highlights of RE sector, Challenges and key issues in RE integration and mitigation. Measures for Planning as well as Operational aspects taken by GETCO to deal with issues of high RE penetration. Technical Division of the Commission shall apprise the Committee during the meeting. The said report is annexed herewith as *Annexure I*.

Agenda Item No. 2 Issue No. 3	Different Practices of levying Property Tax/Rent leading to Discriminating Consumers. <u>Resolution:</u> There should not be any discrimination between consumers of four State Owned Discoms and Private
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	Licensees and matter will be taken up on priority basis with the concerned.
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E&PD, GoG is requested to apprise the committee members on the stated issue.

Agenda Item No. 2 Issue No. 4	Study on per kVA charges for HT connection <u>Resolution:</u> TPL to submit such report.
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TPL has submitted the details regarding proposal for Fixed Service Line Charges for HT connections for its Ahmedabad and Surat license area. The details are under deliberation and further action will be taken after necessary discussion with the officers of TPL.

Agenda Item No. 2 Issue No. 5	Withholding Electrification due to Neglected Stock Reserves of Transformers. <u>Resolution:</u> UGVCL to submit details.
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UGVCL is invited for the meeting. Officer(s) of UGVCL is requested to apprise the Committee members in this regard.

Agenda Item No. 2 Issue No. 6	Exploring Quick Payment Options for 'Demand Note' to make the electrification procedure faster. <u>Resolution:</u> Discoms and CEI should be invited for the deliberation to reach at amicable solutions
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Distribution Utilities and Chief Electrical Inspector (CEI) are invited for the meeting. Discoms shall be presenting their views on the issue during the meeting.

Agenda Item No. 2 Issue No. 7	Establishment of a Legal Cell for removal of difficulties in implementation and interpretation of provisions of various regulations and rules notified by the Commission. <u>Resolution:</u> Staff of the Commission to explore possibilities for establishment of such cell.
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Agenda Item No. 2 Issue No. 8	Study on Electrical Accidents: Its varied Nature, Causes and Remedial Measures <u>Resolution:</u> Staff of the Commission to study and submit a detailed report in this regard.
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Chief Electrical Inspector shall be presenting a detailed note on the subject matter during the meeting. The office of the commission is also scheduling a separate meeting with higher level officials of Distribution Utilities to discuss and deliberate on electrical accidents along with other electrical safety related matters.

Agenda Item No. 3: Important Activities carried out by the Commission during FY 2018-19.

During the year 2018-19, following important activities were carried out by the Commission;

- The Commission issued Tariff Orders on 24.04.2019 covering the Truing up of FY 2017-18 and Determination of Tariff for FY 2019-20. Highlights of Tariff Orders are as under;
 - GSECL has decommissioned Sikka 1 & 2 Units during FY 2017-18. Further, Torrent-Generation (AMGEN) has decommissioned 'C' Station effective from 1st April, 2018.
 - The Commission determined transmission charges of Rs. 4209.06 / MW/Day for FY 2019-20 against Rs.4583.18 /MW/Day projected by GETCO. The Commission approved transmission charges for short-term collective transactions at 36.46 Ps./kWh based on the proportionate energy input in transmission system.
 - The Commission approved SLDC charges of Rs. 3241.41 Lakh for FY 2019-20.
 - No increase in power tariff for the consumers of State owned Discoms and Torrent Power Limited (Ahmedabad-Gandhinagar and Surat area).
 - Number of slabs in Residential Tariff are reduced from 5 to 4 so as to simplify the present structure.
 - Energy Charges for Agriculture Consumers using electricity for Lift Irrigation purpose reduced by 30 Paise/unit.
 - Benefit of Optional Demand Based Tariff extended to small consumers up to 6 kW of contract demand.
 - During FY 2017-18 all the Distribution Companies in the State exceeded the target of distribution losses reduction set by the Commission and achieved

remarkable reduction in losses. The actual distribution losses against the target given by the Commission for FY 2017-18 is shown in the Table below;

DISCOMs	Target given by the Commission	Actual Achieved by DISCOMs
DGVCL	10.00%	6.28%
MGVCL	11.70%	10.63%
PGVCL	21.00%	18.84%
UGVCL	9.90%	8.31%
Torrent-Ahmedabad	7.00%	6.31%
Torrent-Surat	3.74%	3.59%

- During the year 2018-19, the Commission has notified the GERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019 on 19.01.2019.

The aforesaid Regulations provide that from the date of Notification i.e. 19.01.2019 the mechanism for computation of Deviation Charges shall be applicable up to 31st July, 2019 without any financial implications and from 01.08.2019 the commercial mechanism for deviation charges becomes effective in the State on the Wind and Solar generation.

- Further, the Commission has issued amendment draft in the GERC (CGRF and Ombudsman) Regulations, 2019 in order to update some of the provisions based on the implementation experience and in the consumer interest. Comments/suggestions were invited from Stakeholders and hearing on comments/suggestions was held on 20.07.2019 at the office of the Commission. Deliberations are underway and the GERC (CGRF and Ombudsman) Regulations, 2019 shall be notified soon.

Agenda Item No. 4: Important Activities to be carried out by the Commission during FY 2019-20.

Draft GERC (Multi-Year Tariff) Regulations, 2021

The Commission has been regulating tariffs since 1999. Multi-Year Tariff Regulations have been issued for the tariff periods 2008-11, 2011-15 and 2016-21 for determination of tariff of the generating stations within its jurisdiction and

for intra-state transmission and distribution of electricity. During such Tariff Periods, the hybrid approach, consisting of actual cost of service and pre-specified normative parameters have been followed to induce efficiency in financial and operational performance.

The control period of the current GERC (MYT) Regulations, 2016 shall be over on 31.03.2021. The utilities are required to file their MYT Petitions and tariff petitions for FY 2021-22 based on the new MYT Regulations. Therefore, the Commission proposes to initiate process for determining terms and conditions of regulations for the next Multi-Year Tariff (MYT) control period from 01.04.2021 to 31.03.2025.

In view of the above, the suggestions/ideas/views are solicited from the esteemed Members of this Committee on Tariff Design, Components of Tariff, Norms, Mechanism for Incentive & Disincentive, Application for Tariff Determination & its processing and any other element related with the terms and conditions of Tariff Regulations. The Commission values your views and firmly believes that your participation will be of immense assistance in arriving at a just and fair conclusion on different issues related with the terms and conditions of Tariff Regulations.

Agenda Item No. 5: Standard of Performance of Distribution Utilities for FY 2018-19

The Commission has received Standard of Performance Reports for FY 2018-19 from DISCOMs, which are kept herewith as *Annexure II* for information of the members.

Agenda Item No. 6: Issues of the Members of the Committee.

Issues received from members for discussion are as under:-

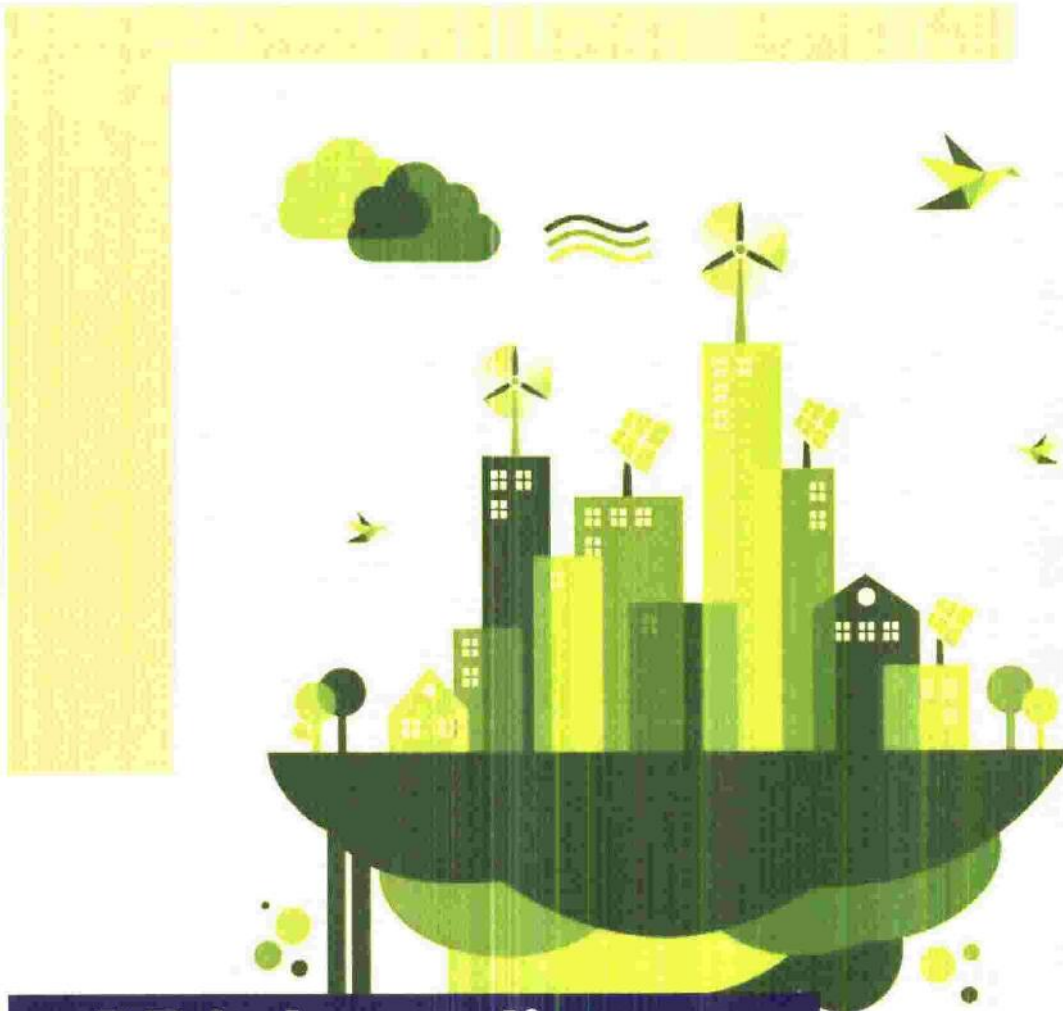
- Gandhinagar Shaher Vasahat Mahamandal, Gandhinagar (*Annexure III*)
- Gujarat Chamber of Commerce & Industry (*Annexure IV*)

Agenda Item No. 7: Any other Item with the Permission of Chair.

Sd/-
(Roopwant Singh, IAS)
Secretary
Gujarat Electricity Regulatory Commission
Gandhinagar

Annexure - I

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RE Integration- Looking Ahead

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1. GUJARAT POWER SCENARIO

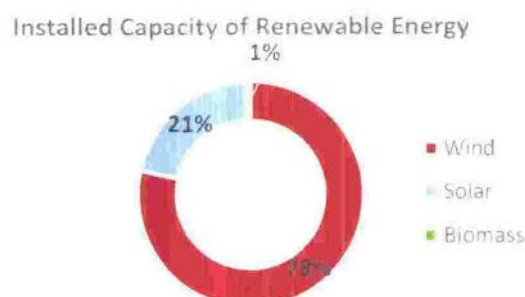
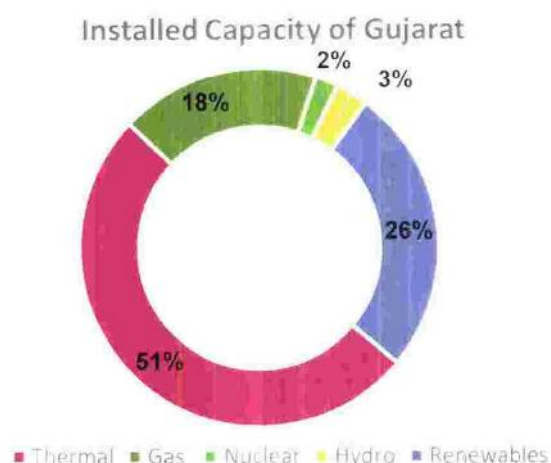
State of Gujarat is blessed with immense potential for power generation through rich RE sources with longest coastal line of 1600 Kms for wind generation, passing of Tropic of Cancer provides good levels of solar radiation, scope for development of off-shore Wind projects and tidal energy, biomass etc.

Integration of huge RE power in Gujarat grid requires well-structured network planning and co-ordination with various stakeholders.

Installed Capacity of Gujarat State:

At present, the total installed power generation capacity for Gujarat State is around 27287 MW (as on September-2018).

Sr. No.	Sector	Available Capacity as on 30.09.2018
1	State	6017
2	Private	7853
3	Central Sector	6198
Total (1)...		20068
4	Wind	5639
5	Solar	1519
6	Biomass	41
7	Mini Hydro	21
Total (2)...		7220
Grand Total...		27287



Gujarat Grid comprises of transmission network at 765KV, 400KV, 220KV, 132KV & 66KV level including that of Inter-State & Intra-State systems. As on 31.03.2018, GETCO has approximately 1869 Nos. of 66 KV to 400 KV substations operational in every nook and corner of Gujarat state along with 61056 CKms of transmission lines.

Out of total installed capacity of Gujarat State, 26% is attributed by Renewable Energy sources (20% from wind and 6% from solar).

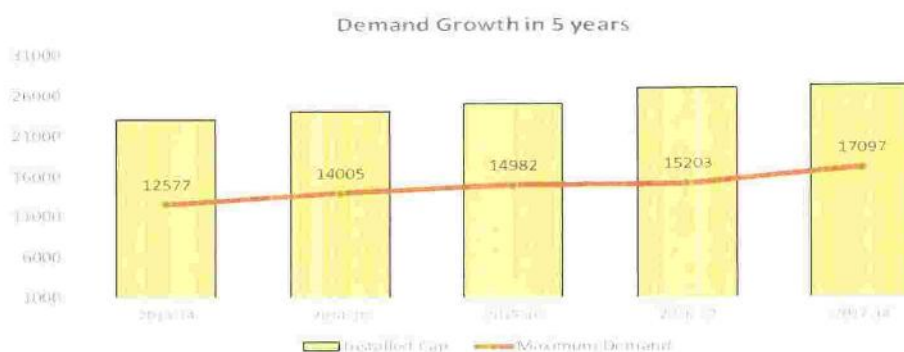
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Power System Highlights:

Sr No.	Particulars	2016-17	2017-18	2018-19 (Upto Sep'18)
1	Maximum Demand Catered in MW	15203	17097	18221
2	Total Energy Catered in a Year in MUs	104284	110739	61616
3	Maximum Energy Catered in a Day in MUs	334	373	403
4	Total Wind generation in Mus	7720	9636	7462
5	Total Solar generation in MUs	1738	2048	1027
6	Maximum Wind injection in a day in MW	3114	3763	4282
7	Maximum Solar injection in a day in MW	868	1072	1029
8	Maximum demand variation in a day in MW	4196	4876	4031

Demand Projection:

In last 5 years, demand has increased by 36%.

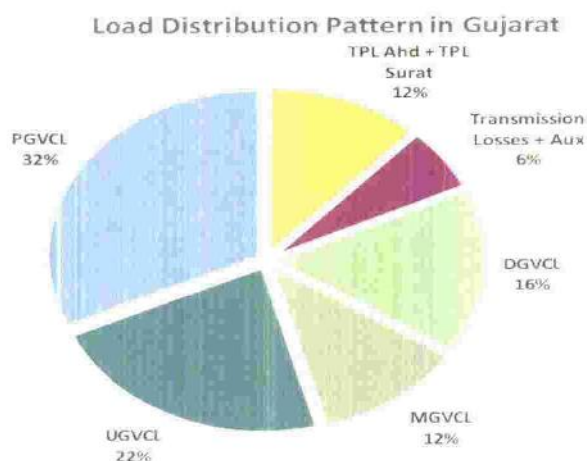


As per 19th Electric Power Survey report by CEA, New Delhi the peak demand for Gujarat state by 2023-24 is anticipated as 24079 MW. With respect to present peak demand, around 40% rise is anticipated in next 5 years (up to 2023-24) whereas 66% rise is anticipated in next 10 years (up to 2026-27).

(Source: 19th EPS Report)



For the year 2017-18, maximum energy catered in a day was 373 MUs. Typical load distribution pattern for peak demand period for four State DISCOMs and Torrent Ahmedabad & Surat is as under:



2. RE POTENTIAL IN GUJARAT

Gujarat is rich in renewable energy resources - 300+ days of sunshine, Rann of Kutch where the land is endless and the sun's heat relentless, good winds along its 1600 km long shoreline, scope for energy plantation in its vast wastelands, waste to energy options that harness bio, agro and industrial-waste. In this scenario, it is certainly in our economic self-interest to employ renewable energy technologies.

As per the annual report for the year 2017-18 of MNRE, the estimated wind potential of Gujarat is around 84000 MW (at 100 m) whereas solar potential is 35000 MW.

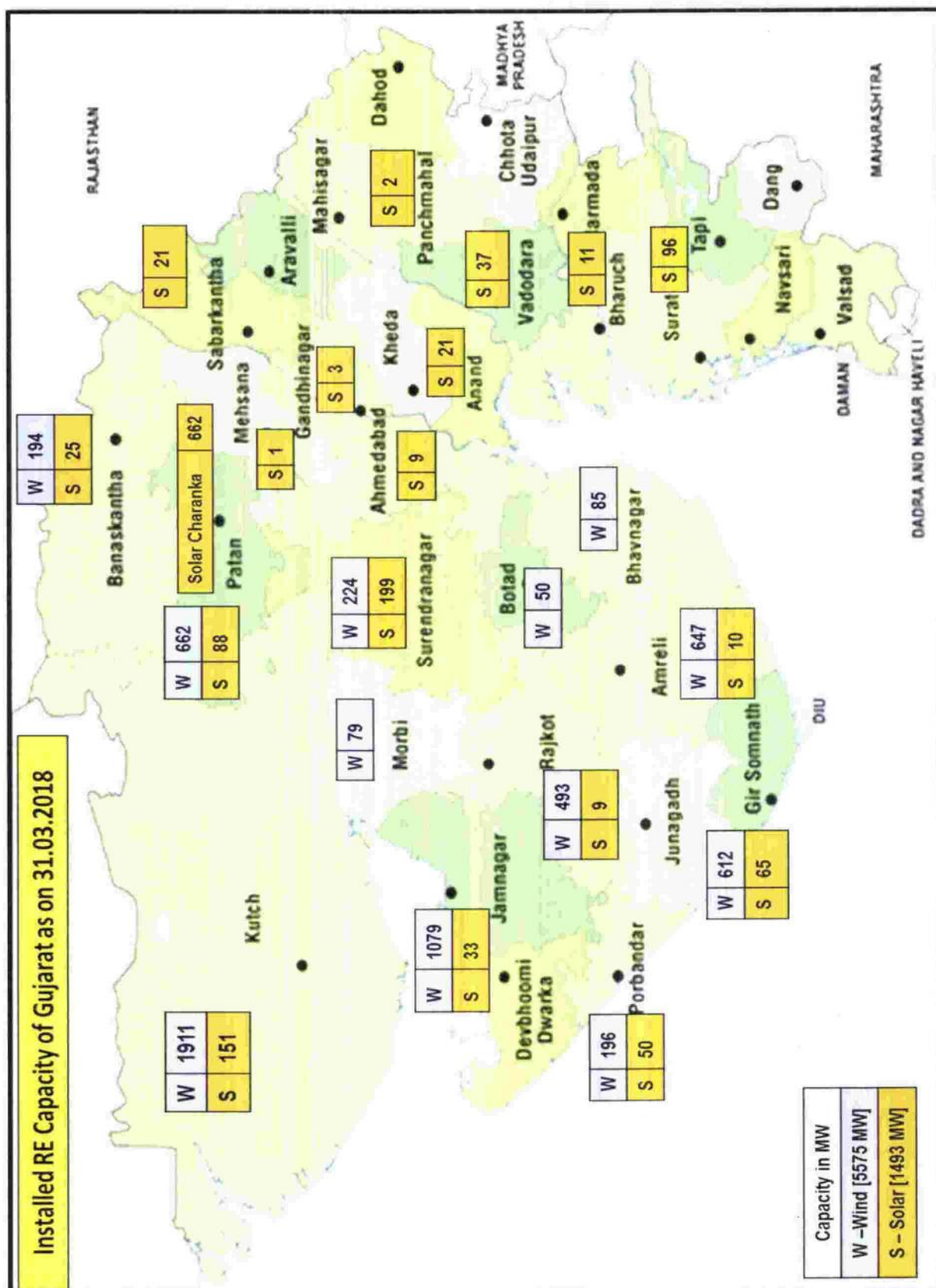
Gujarat contributes ~ 10% to India's renewable energy basket.

Gujarat's share of RE sources in Western Region is 34 %.

The installed capacity of Wind power as on October, 2018 is 5639 MW whereas for Solar Power is 1519 MW.

The geographical map showing district wise installed renewable capacity of Gujarat (as on 31st March, 2018) is as under-

Installed RE Capacity of Gujarat as on 31.03.2018



Capacity in MW	
W - Wind	[5575 MW]
S - Solar	[1493 MW]

3. RENEWABLE ENERGY INTEGRATION- CHALLENGES & KEY ISSUES OF GUJARAT GRID

Key issues for integration of large scale Renewable Energy in to Grid:

The characteristics of renewable energy is variable, intermittent and uncertain which directly affects the conventional power plants, grid technical parameters and system operation.

The variation of renewable generation needs to be minimized by operation of conventional plants leads inefficient / uneconomical operation, increased capital and maintenance costs, backing down of cheaper generation etc.

The adequate grid infrastructure and long transmission lines required to transmit the RE power to load centre causes constraints in the grid parameters in the form of voltage fluctuations. Further, frequent variation in the RE generation leads reactive power issue, loading on associated transmission elements etc.

Planning issues:

Addition of new RE plants every year, increase both transmission bottlenecks and the need for new developing new transmission lines for their connectivity.

It is pertinent to note that most of wind power is located in Kutch / Saurashtra area whereas solar power is located North Gujarat, Saurashtra and Kutch area. Further, RE development is being taken place in the remote areas wherein local consumption is very less and located far away from the major load centres.

Therefore, considering local consumption and adequacy / saturation of existing & already planned network, there is a strong need to plan new transmission infrastructure up to load centres for any further RE integration with Intra-State network.

Moreover, gestation period for RE projects is around two years, whereas creation of transmission network will take more than 5 years for commissioning. Therefore, transmission schemes for RE integration may be identified based on RE potential areas.

Connectivity issues:

- Most of the wind generators being induction generators require Reactive Power from external source / Grid
- Dynamically Varying Reactive Power Support
- LVRT / HVRT Compliances
- Power Quality Parameters viz. Harmonics / Flickers / DC Power Injection
- Frequency Response & Capability to operate within 47.5-52 Hz frequency variations
- Facility to control Active Power

Operational issues:

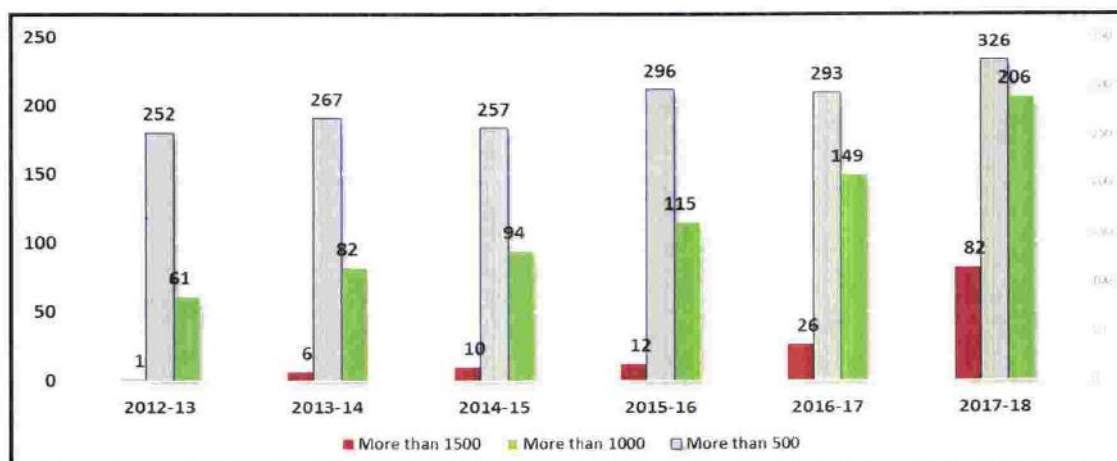
Variable RE is often perceived as incompatible with base load needs and a secure electricity grid because of its inherent uncertainty in availability.

Renewable energy depends on

- Season: Winter, Summer, Monsoon
- Weather parameter. i.e. wind speed & direction, temperature, wind pressure, irradiation
- Terrain & obstruct
- Specification & design of generators
- Availability of Wind mills & solar panel
- Dust in movable part of wind mills & surface of solar panel

Demand & RE Generation Variations:

The graph below shows the number of days where the variation of maximum and minimum wind generation is more than 500, 1000 & 1500 MW throughout the year.



On other hand demand variation depends on:

- Season: Winter , Summer , Monsoon
- Seasonal Lighting load effect (Sunrise / Sunset timing)
- Festival effect
- Sunday / Holiday effect
- Office timing & Recess/Lunch time
- Industrial Staggering effect (District / area wise)
- Any special effect like. Bandh / Agitation / Strike / Election / Local issues

The table below highlights the numbers of days when variation between maximum and minimum demand was more than 1500, 2000, 2500, 3000 and 3500 MW.

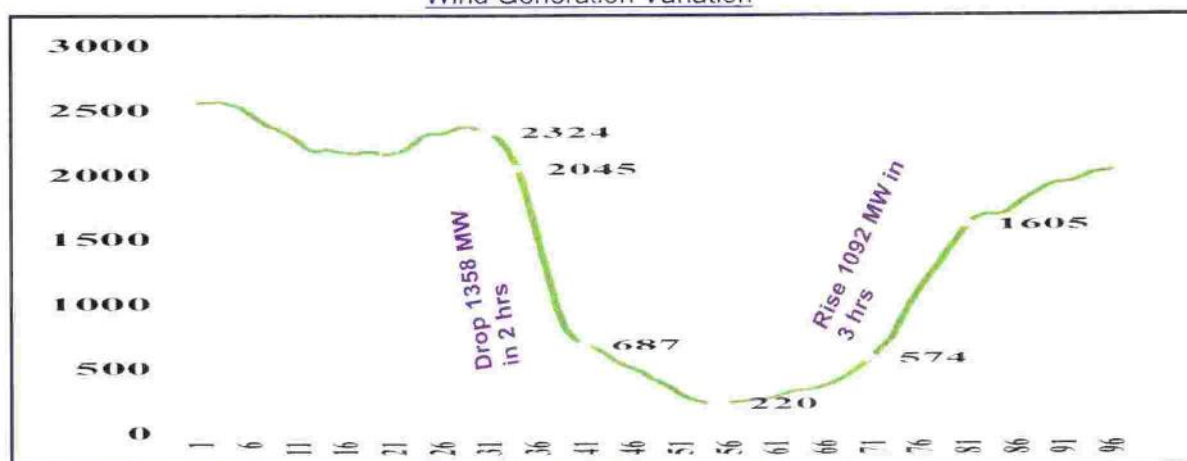
Year	No of days when variation between Maximum and Minimum demand				
	>1500 MW	>2000 MW	>2500 MW	>3000 MW	>3500 MW
2012-13	259	104	22	0	0
2013-14	260	114	34	6	0
2014-15	304	137	58	20	4
2015-16	336	213	94	28	2
2016-17	332	252	139	54	13
2017-18	350	302	198	119	54

Impact on Conventional Plants

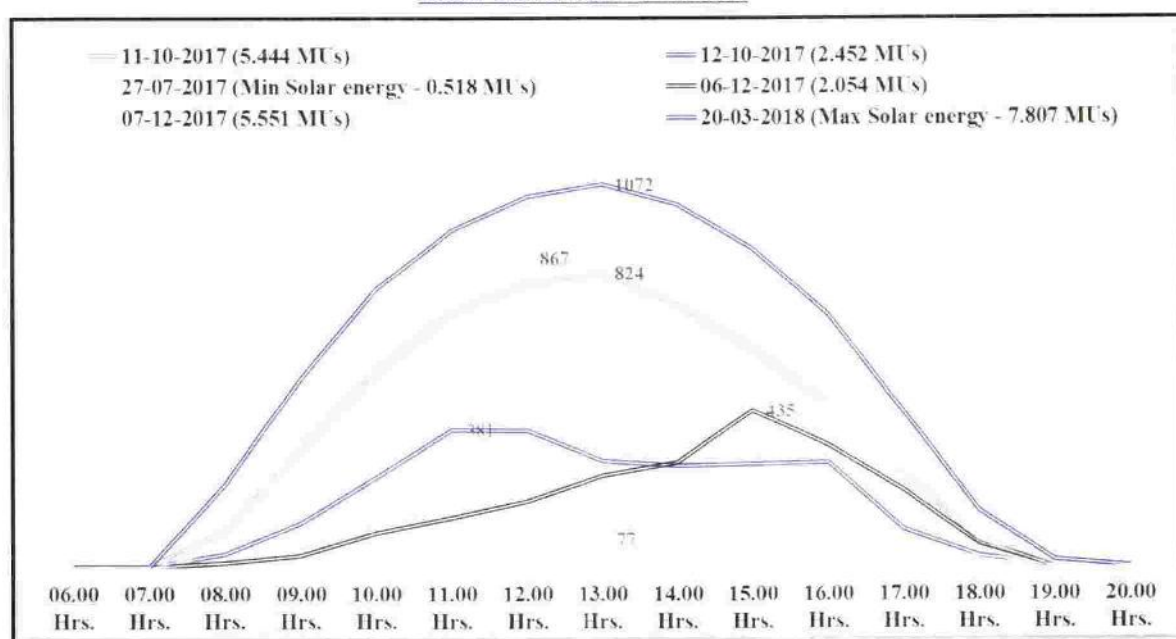
Thermal capacity is the backbone of balancing RE ("MUST RUN" status) as it is available in large quantities and further Gas is costlier and hydro is negligible amount.

- Ramp up / down issues
 - Low flexibility of thermal power plant to pick up / back down
 - Old Machine: Not flexible for fast pick up / back down
- Frequent Pick up and Back-down of Conventional Generation
 - Inefficient / Uneconomical operation
 - Increased capital and maintenance costs
- Tech / Coal Minimum issues
 - Limited ability to back-down the generation as per machine design
 - Oil Support after certain minimum level

Wind Generation Variation



Solar Generation Variation

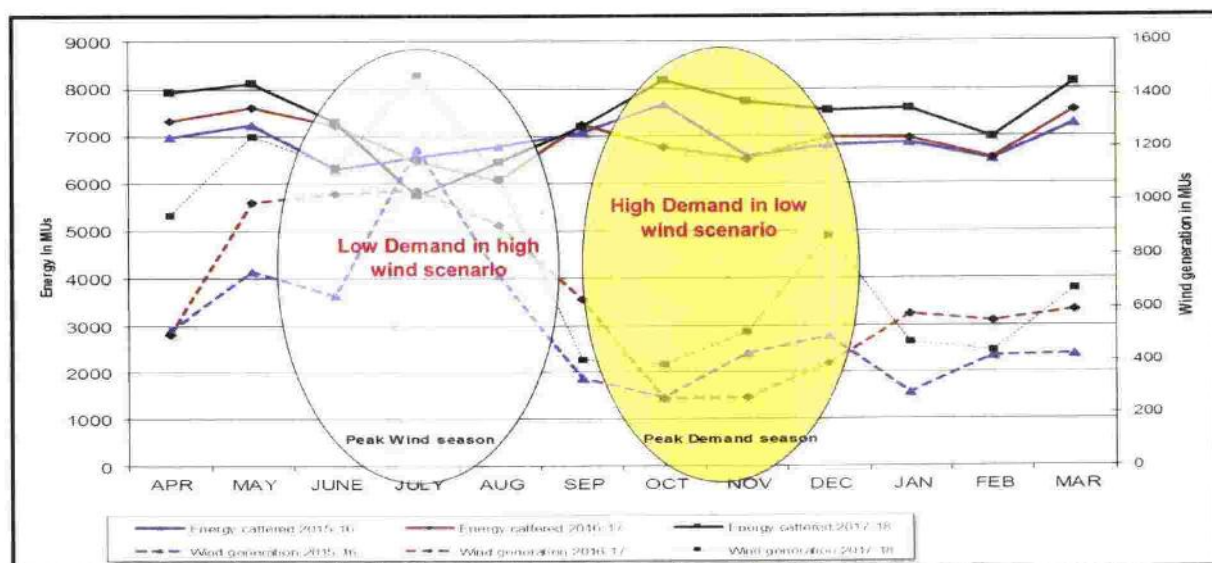


Seasonal Availability:

From the past profile of renewable energy generation, it has been observed that wind generation increases in other than peak demand period. Further maximum wind generation available in monsoon season.

Similarly, solar output is from 7:00 to 19:00 with peak ranging from 12:00 to 15:00.

India is blessed with three seasons due to its geographic location, seasonal changes affects renewable energy generation. Analysis of past data, indicates that maximum wind generation takes place during May to September whereas agricultural demand drops during this period. On other hand, state witness maximum demand during winter season i.e January to March when low wind generation is observed.



Bottleneck issues for Transmission network of Gujarat Grid:

Government of India has set an ambitious target of achieving 175 GW of energy from renewable sources by 2022. Out of which, 100 GW through solar power, 60 GW from wind power, 10 GW from biomass power and 5 GW from small hydro power.

Detailed break-up of above RE capacity along with tentative share of Gujarat State for RE integration is as under:

Category	Anticipated Capacity		Existing Capacity Gujarat
	All India	Gujarat	
Wind	60000	8800	5575
Solar	99533	8020	1493
SHP	5000	25	21
Biomass	10000	288	41
Total	174533	17133	7130

As per above, more than 7000 MW RE capacity is already integrated with Gujarat system and hence additional 10000 MW RE capacity growth is anticipated within Gujarat by year 2022. Also, as per recent RE bid by GUVNL i.e. 1500 MW (1000 MW solar + 500 MW wind) bid is already finalized.

Accordingly, nearly 9000-10000 MW RE capacity will be integrated with Gujarat system by 2020. GETCO have observed following RE evacuation constraint areas along with the associated transmission elements-

Kutch Region:

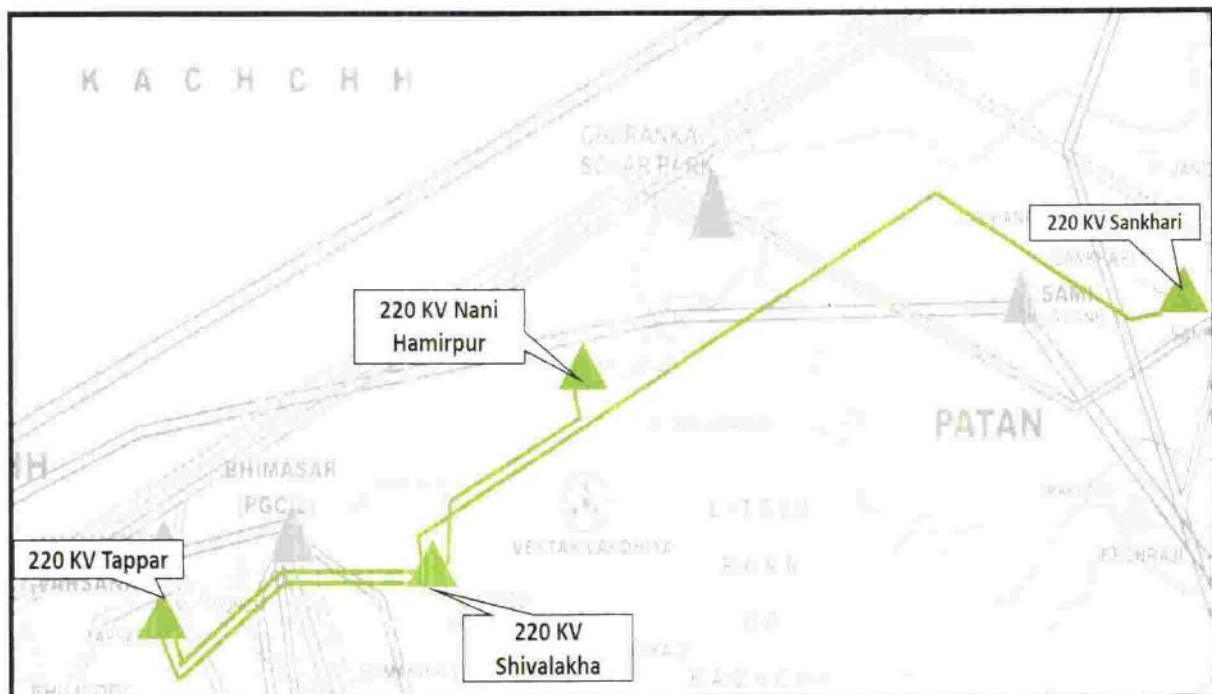
Maximum RE potential and land availability is in Kutch region of Gujarat. More than 2000 MW RE capacity is already integrated in Intra-State network within Kutch region along with around 9500 MW conventional generation including ISTS network.

Also, around 5000 MW RE capacity is granted ISTS connectivity in Kutch region.

Looking to the network congestion, RE integration with State grid is restricted in Kutch area since last 3 years.

RE evacuation from Kutch to North Gujarat is through few corridors, making following 220 KV elements to critically loaded during peak wind generation and off-peak demand condition:

- 220 KV D/C Tappar - Shivalakha line
- 220 KV S/C Shivalakha - Nani Hamripur - Deodar line
- 220 KV S/C Shivalakha - Sankhari line
- 220/400 KV, 2X315 MVA ICT's at APL Mundra

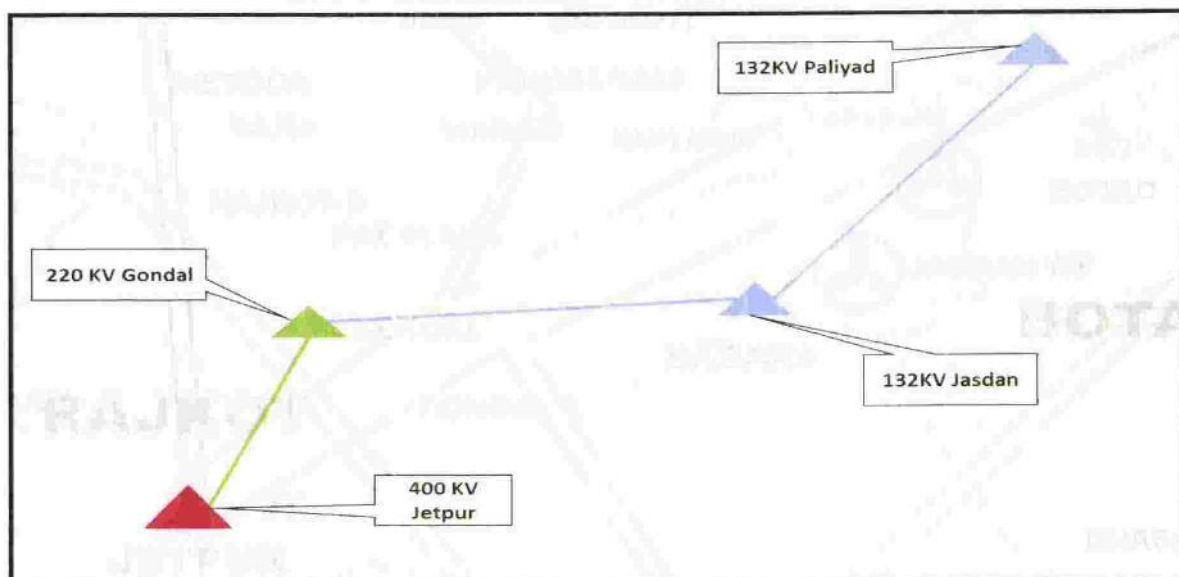
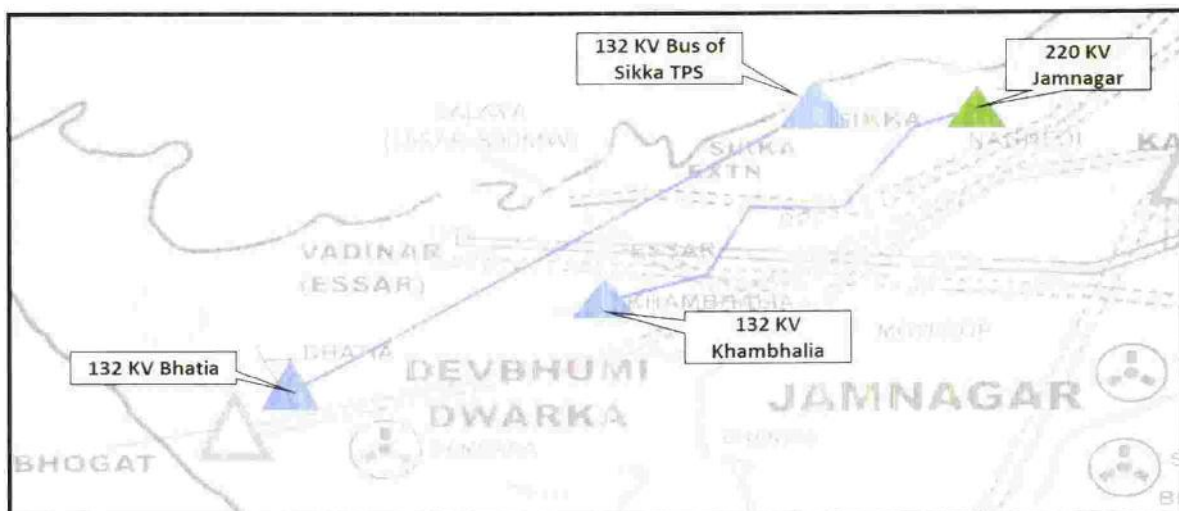


Devbhumi-Dwarka, Jamnagar & Junagadh Region:

Around 1225 MW of renewable capacity is already installed in Jamnagar & Dev-Bhumi Dwarka region of Gujarat. Whereas around 820 MW of RE capacity is also granted for future integration. Further, looking to the wind potential in the area, additional wind power capacity is anticipated.

Entire region is having agriculture demand resulting into very less local consumption during other than agriculture season. During peak wind season, it helps to cater the local demand. But during low demand and high RE injections, following elements get critically loaded:

- 132KV S/C Bhatia - Sikka line
- 132KV S/C Khambhalia - Jamnagar line

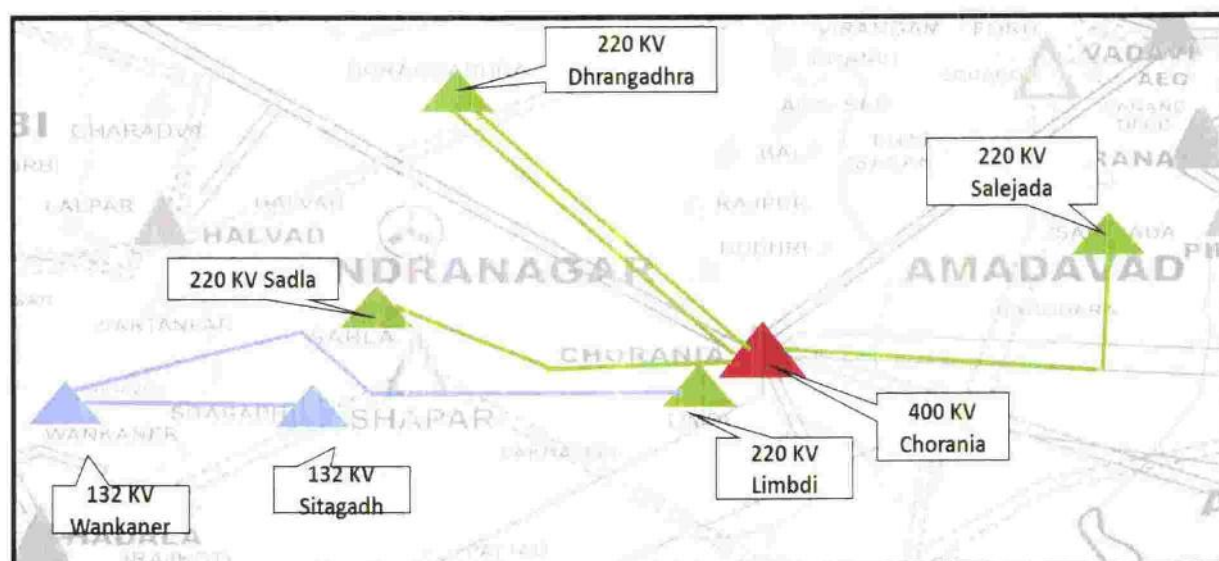


Rajkot, Morbi & Surendranagar Region:

More than 1000 MW RE capacity is already integrated in Rajkot, Morbi & Surendranagar area. Further, around 900 MW RE capacity is already granted connectivity in the area. Looking to the RE potential, further RE capacity addition is anticipated in the area. Also, most of the existing substations in the area are having space constraints for future RE connectivity.

Following elements get critically loaded during the year-

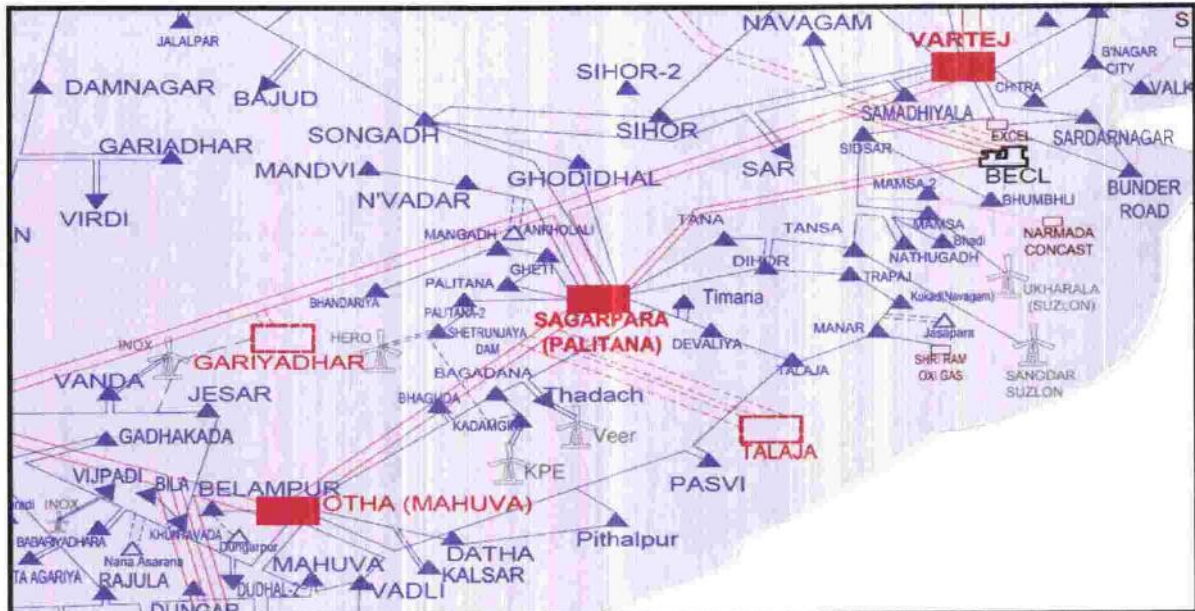
- 220 KV S/C Jetpur - Gondal line
- 220 KV S/C Chorania - Salejada line
- 220 KV S/C Sadla - Chorania line
- 220 KV D/C Dhrangadhra - Chorania line
- 132 KV Wankaner - Limdi line
- 132 KV Wankaner - Sitagadh - Vakhatpur - Limdi line
- 132 KV Gondal - Jasdan line
- 132 KV Jasdan - Paliyad line



Bhavnagar & Botad region:

Around 800 MW RE capacity is already integrated in Amreli, Bhavnagar & Botad area. Also, around 500 MW RE connectivity is already granted in the area. Entire region is having agriculture demand resulting into very less local consumption during other than agriculture season.

Also, 66 KV lines associated with 220 KV Sagapara and 220 KV Otha substations and 66 KV lines connected with wind farms in surrounding area of Talaja and Vartej have been loaded to its rated capacity.



1000 MW Solar park at Dholera:

Government of Gujarat has come out with a massive solar park development surrounding Dholera area. Out of total 5000 MW solar power capacity surrounding Dholera, 1000 MW solar power capacity will be developed in 1st phase planned to be integrated with Intra-State grid.

At present, power from Saurashtra region is being fed to Dhuvran bus and 220 KV and 132 lines from Dhuvran towards Central Gujarat are getting loaded. Existing transmission network at Dhuvran is not sufficient to handle future RE capacity proposed at Dholera SIR.

4. MITIGATION MEASURES FOR RE INTEGRATION

For seamless evacuation of already planned 10000 MW RE capacity along with additional RE capacity of more than 5000 MW across the state, following Intra-State transmission system strengthening schemes primarily comprising of substations at 220kV and 400kV level & associated transmission lines including other strengthening schemes have been planned.

Planning Aspects

Kutch Area

For smooth evacuation of existing power as well as to tap RE power in future, 400 KV Shivilakha along with 400 KV line corridor up to 400 KV Prantij (load centre in North Gujarat at outer periphery of Ahmedabad) is proposed. Similarly, 400 KV Bhachunda with 400 KV and 220 KV lines connecting 400 KV Varsana is proposed.

Schemes planned for Kutch region is as under-

Sr No.	Transmission Element	Scheme
Substation		
1	400/220/66 KV Bhachunda GIS substation	GEC-I
2	400/220/66 KV Shivilakha GIS substation	GEC-II
Transmission Lines		
1	LILO of both circuits of 220 KV D/C Jamanvada - Varsana line at 220 KV Bhachunda (AL-59)	GEC-I
2	LILO of one circuit of 220 KV D/C Akrimota - Nakhatrana line at 220 KV Bhachunda (AL-59)	
3	400 kV D/C Bhachunda - Varsana line	
4	400 KV D/C Bhachunda - Shivilakha line (Twin AL-59)	GEC-II
5	400 KV D/C Shivilakha - Veloda (Sankhari) line (Twin AL-59)	
6	400 KV D/C Veloda (Sankhari) - Prantij line (Twin AL-59)	
7	LILO of one circuit of 400 KV D/C Soja - Zerda line at Veloda (Sankhari) substation	
8	220 KV D/C Tappar - Radhanpur line (AL-59)	
9	LILO of both circuit of 220 KV D/C Tappar - Shivilakha line at Shivilakha (400 KV) substation (M/C tower AL-59)	Regular
10	400 KV D/C Varsana - Halvad line	

Devbhumi-Dwarka, Jamnagar & Junagadh Region:

For smooth integration of future RE power 400 KV Kalavad, 400 KV Keshod & 400 KV Bhogat along with 400 KV & 220 KV line corridor up to 400 KV Chharodi (load centre in North Gujarat at outer periphery of Ahmedabad) is proposed. At 220 KV level, 220 KV Moti Gop & 220 KV Khambhalia along with 220 KV lines to 400 KV Bhogat as well as 400 KV Kalavad is proposed.

Sr No.	Transmission Element	Scheme
Substation		
1	400/220/66 KV Bhogat GIS substation	GEC-I
2	220/66 KV MotiGop GIS substation	
3	220/66 KV Kalavad GIS substation	
4	400/220 KV Kalavad GIS substation	GEC-II
5	400/220/66 KV Keshod GIS substation	
6	220 KV Khambhalia substation	
Transmission Lines		
1	400 KV D/C Bhogat - Kalavad line (Quad)	GEC-I
2	220 KV D/C Bhatia - Bhogat line (AL-59)	
3	220 KV D/C Bhogat - Ranavav line (AL-59)	
4	220 KV D/C Bhogat - Moti Gop line (AL-59)	
5	LILO of both circuits of 220 KV D/C Tebhda - Nyara line at Moti Gop substation (M/C line : AL-59)	
6	400 KV D/C Kalvad - Keshod line (Twin AL-59)	GEC-II
7	400 KV D/C Keshod - Shapar line (Twin AL-59)	
8	400 KV D/C Shapar - Chharodi line (Twin AL-59)	
9	LILO of both circuit of 220 KV D/C Visavadar - Timbdi at 400 KV Keshod substation	
10	220 KV D/C (400KV) Keshod - Keshod line	
11	LILO of both circuit of 220 KV D/C Bhatia - Kalavad line at Khambhalia substation (M/C tower AL-59)	
12	220 KV D/C Bhatia - Kalavad line	Regular

Rajkot, Morbi & Surendranagar Region:

For smooth evacuation of existing as well as future RE power 220 KV Ghiyavad, Nichi Mandal (Vankda) / Shapar, Kamlapur, Gomta & Dhama along with 220 KV line corridors up to 400 KV Chharodi, 220 KV Bechraji, 220 KV Bagodara & Mogar (load centres surrounding Ahmedabad & Vadodara) is proposed under GEC-II. Similarly, Upgradation of already existing 132 KV Wankaner to 220 KV level (GIS technology) with line connectivity to 400 KV Hadala and 220 KV Sartanpar is proposed under GEC-I.

All these substations will also facilitate to cater future load growth in the respective area along with strengthening of sub-transmission network.

Sr No.	Transmission Element	Scheme
Substation		
1	Up-gradation of 132 KV Wankaner substation to 220 KV level (Dist: Rajkot)	GEC-I
2	220 KV Giyavad substation (Dist. Morbi)	GEC-II
3	220 KV Nichimandal (Vankda) / Shapar substation (Dist. Morbi)	
4	220 KV Gomta substation (Dist. Rajkot)	
5	220 KV Kamlapur substation (Dist. Surendranagar)	
6	220 KV Dhama substation (Dist. Surendranagar)	
Transmission Lines		
1	220 KV D/C Chorania - Salejada line (AL-59)	GEC-I
2	LILO of one Circuit of 220 KV D/C Hadala - Sartanpar at 220 KV Wankaner (AL-59)	
3	LILO on 220 KV S/C Lalpar - Sartanpar line at 220 KV Wankaner (M/C tower by replacement of existing 132KV towers) (AL-59)	
4	220 KV D/C Mansar (Halvad) - Dhama line (AL-59)	GEC-II
5	220 KV D/C Dhama - Bechraji line (AL-59)	
6	220 KV D/C Dhama - Chharodi line (AL-59)	
7	LILO of 220 KV S/C Bala (SSNNL) - Dhanki (SSNNL) at 220 KV Sarla (GETCO) substation (AL-59)	
8	LILO of both circuits of 220 KV D/C Bhimasar - Charadava line at 220 KV Nichimandal (Vankda) substation (M/C tower AL-59)	
9	220 KV D/C Nichimandal - Shapar (400 KV S/S) line (AL-59)	
10	LILO of both circuits of 220 KV D/C Shapar - Babara line at 220 KV Kamlapur substation (AL-59)	
11	220 KV D/C Kamlapur - Bagodara line (AL-59)	
12	220 KV D/C Moti Gop - Gomta line (AL-59)	
13	220 KV D/C Gomta - Kamlapur line (AL-59)	
14	220 KV D/C Ghiyavad - Shapar (400 KV s/s) line (AL-59)	
15	LILO of one circuit of 220 KV D/C Hadala - Sartanpur line at 220 KV Ghiyavad substation (AL-59)	

Bhavnagar & Botad region:

For smooth evacuation of existing as well as future RE power, 220 KV line corridor from Botad area towards Amreli as well as Surendranagar is proposed through 220 KV Babara. Also, 220 KV Talaja substation along with 220 KV line corridors up to 400 KV Pachchham (Fedra) is proposed under GEC-II.

220 KV Talaja substation will also facilitate to cater future load growth in associated area along with strengthening of sub-transmission network.

Sr No.	Transmission Element	Scheme
Substation		
1	220 KV Babara substation (Dist: Amreli)	GEC-I
2	220 KV Talaja substation (Dist. Bhavnagar)	GEC-II
Transmission Lines		
1	220 kV D/C Amreli - Babara line (AL-59)	GEC-I
2	220 kV D/C Shapar - Babara line (AL-59)	
3	LILO of both circuits of 132 KV D/C Sitac WF - Jasdan line at Babara	
4	LILO of both circuit of 220 KV D/C Otha - Sagapara line at Talaja substation (M/C tower AL-59)	GEC-II
5	220 KV D/C Talaja - Maglana line (AL-59)	
6	220 KV D/C Maglana - Pachchham line (AL-59)	

1000 MW Solar park at Dholera:

Hence following schemes have been proposed for smooth evacuation of RE power from Dholera SIR-

Transmission Lines

- 220 KV D/C Bagodara - Mogar line (AL-59)
- LILO of both circuits of 220 KV D/C Jambuva - Karamsad line at Dhuvaran CCPP (by using existing LILO portions and through 220 KV D/C Pachham - Kasor line)
- LILO of 400 KV S/C Chorania - Asoj line at 400 KV Pachham (Fedra) substation

Apart from these schemes, following transmission lines have been proposed under GEC-I:

- 400 KV Hadala - Shapar line (Twin AL-59)
- 400 KV D/C Shapar - Pachham (Fedra) line (Twin AL-59)
- 220 KV D/C Chorania - Salejada line (AL-59)
- 220 KV D/C Radhanpur - Sankhari line (AL-59)
- LILO of one circuit of 220 KV D/C Gandhinagar TPS - Chattral line at Vadavi (AL-59)

Implementation of above schemes will help to facilitate transfer of RE power from RE rich areas i.e. Saurashtra & Kutch regions to the load centres i.e. in North & Central Gujarat.

To address the issues of grid integration of large scale renewable generation capacity, a planned approach is essential so as to ensure power system safety, security and stability remains intact in all operating conditions. Other than above planned transmission schemes, deployment of following key elements namely providing Capacitor banks, implementation of LVRT, RE forecasting tools, balancing mechanism etc will help in reducing operational issues

Operational Aspects

Voltage profile:

During light AG load condition and high RE generation, high voltage observed at Vartej, Sagapara, Otha, Dhokadava, Timdi, Ranavav, Motipaneli and Keshod S/S. There is indeed a need of providing 25 MVAR reactors to curb over voltage during light Ag load condition.

Forecasting & scheduling of RE:

Earlier RRF Regulation was suspended vide Hon'ble CERC Order dated 07.01.2014 with a remark that -"..... While the forecasting and scheduling of RE generation shall continue as per the provisions of the Grid Code.....". As per regulation Hon'ble CERC, the cut-off date was 03rd May 2010 for RE developer pooling station commissioning and Windfarm of 10 MW & above whereas Solar Plant of 5 MW & above was considered for forecasting and scheduling criteria.

Recently, Hon'ble GERC has been issued draft regulation on "Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources" for Intra State which is under process.

At present, aggregate 3914MW (70%) windfarm and all solar plants of about 1471MW (97%) (Except few of below 5MW) are providing forecast. All eligible RE plants being schedule through online web based application as per day ahead forecast and intraday revision thereof.

Balancing mechanism:

The Thermal capacity is backbone for the Gujarat State as it is 51% of the total installed capacity whereas Gas 18%, Hydro 3%, Nuclear 2% and Renewables are about 26% comprise of 20% wind energy and 6% of solar energy.

The renewable energy and nuclear generation is having "Must run" Status, which cannot be backed down in normal course of operation. The coal generation is not effective due to limited ability to back-down the generation as per machine design and low flexibility to pick up / back down with respect to variation of RE generation. The gas plant may ramp up / down quickly. But; to keep costly gas base generation on bar to handle RE variation leads merit order violation. Further, hydro generation can be utilise as a balancing. However, hydro is having negligible amount and mainly available in monsoon and further mostly run as per irrigation program.

Gujarat State is having pump mode hydro power plant at SSP about (200 X 6) 1200MW and at Kanada Plant about (60 X 4) 240MW. However, it is not working condition as on today due to some of technical and commercial issues. Hence, there is no balancing mechanism exist in the system to manage wide and uncertain variation of renewable generation.

Variation handling:

The in-house wind generation forecasting and load forecasting has been developed and availed online web based service of Forecasting Service Provider (FSP) for wind generation forecasting.

On base of load, RE forecasting and availability of conventional plants, the surplus / deficit in blocks is derived. The day ahead forecasting data of renewable generation are being utilise to plan the Reserve Shut-down (RSD) of conventional generator or / and to carry machine on bar. Further, intra-day forecasting of is being utilized to pick up and back down of conventional generation. Accordingly, the planning of gas-based generation, mainly in peak, schedule of hydro generation, revise schedule for central sector generation etc. can be decided for system operation and action being taken.

The real time renewables generation data and technical data of associated networks is being capturing and monitoring at SLDC. The real time technical parameter helps to maintain and control loading and voltage of associated transmission network within stipulated limit.

SLDC readiness / plan for future RE capacity:

As per Analysis of the existing systems and processes in place, Detailed Project Report (DPR) of GIZ has led to the following recommendations regarding Renewable Energy Management Centre (REMC) establishment in the state:

Dedicated Forecasting, Scheduling, SCADA and Communications teams required at the SLDC

REMC should be part of the SLDC as a specialist group for renewables generation management.

The role of the executive's preliminary would be data acquisition system, energy management system, coordination with SLDC, technology management, telemetry, real time supervision.

In view of above, work of REMC is under progress for Gujarat SLDC. However, SLDC has already developed RE Forecasting Tool RE Scheduling Tool. The forecasting is being carried out as State as a whole by in-house methodology and web application of FSP. However, the scheduling of renewable power is being scheduled through software application according to the forecast received from renewable plants. The real time data of renewable pooling stations / solar plants are being captured and monitored through SCADA. At present, reserve / balance power of conventional generation is being identified through scheduling software and it is also monitored through SCADA system in real time

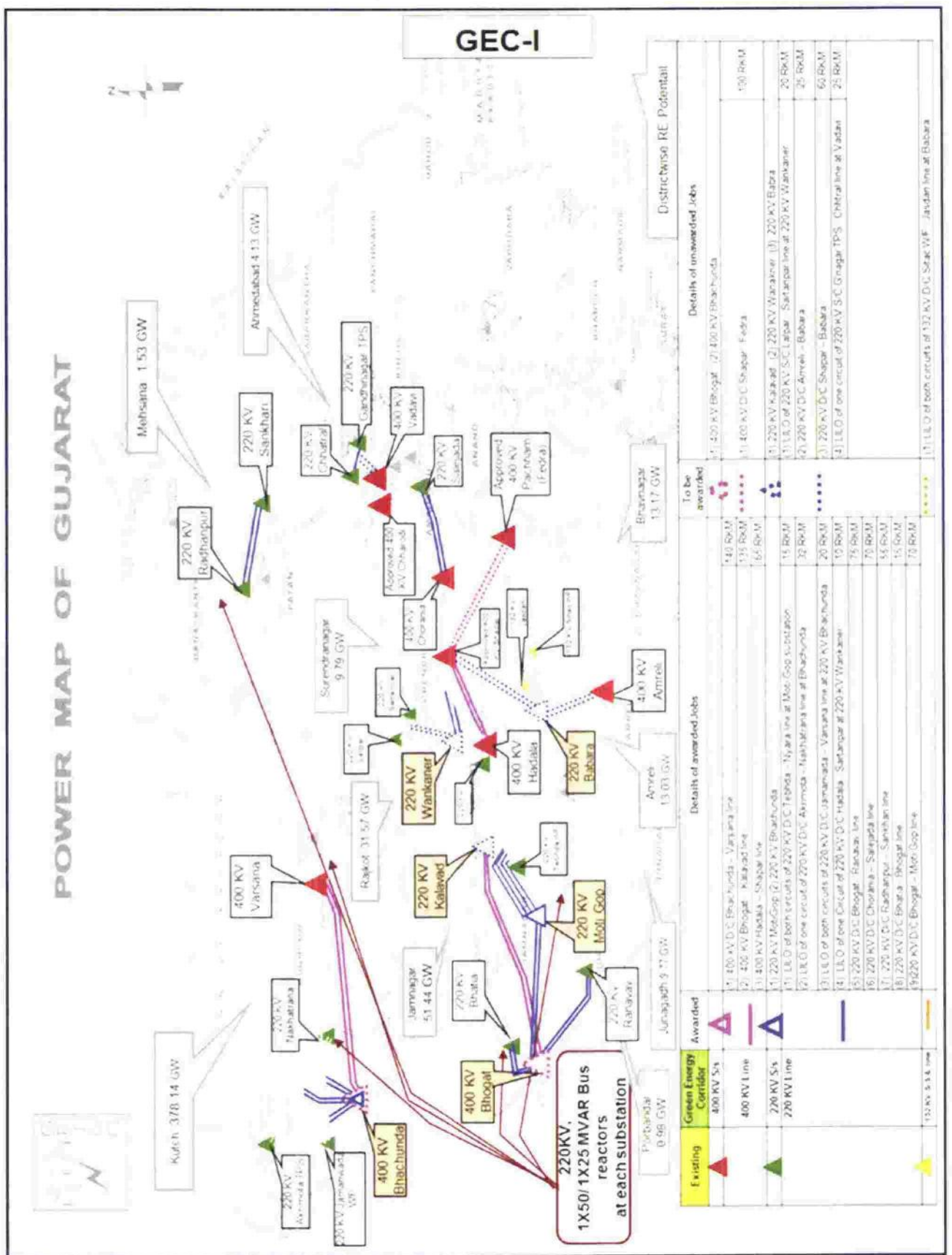
Future needs (Primary):

- RE grid code / Technical Standards
- Accurate forecasting of RE generation
- Operationalization of pump mode hydro
- Energy banking between States
- Upgradation of thermal units - Enhancing flexibility in operation in range of 30% to 100% of its full capacity.
- Implementation of AGC in RE.
- Implementation of battery storage.

5. MAPS DEPICTING SCHEMES UNDER GREEN ENERGY CORRIDOR PHASE I & II

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POWER MAP OF GUJARAT



SoP 1: Electrical Accidents

DISCOM	FH			FA			NFH			Total		
	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2016- 17	FY 2017- 18	FY 2018- 19
DGVCL	71	73	55	89	72	100	88	69	75	248	214	230
MGVCL	44	45	47	53	72	60	18	37	18	115	154	125
PGVCL	102	98	112	220	249	187	89	71	81	411	418	380
UGVCL	87	84	81	84	88	54	34	35	37	205	207	172
TPL A	39	39	32	14	13	4	23	11	13	76	63	49
TPL S	7	7	6	0	0	0	4	3	2	11	10	8

SoP 6: Distribution Transformer Failure

DISCOM	No. of Transformers at the start of the year		No. of Transformers added during the year		Total No. of Transformers		No. of Transformers failed during the year		% failure rate	
	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19
DGVCL	12837	142937	14560	16592	142937	159529	9310	7854	6.51	4.92
MGVCL	124443	133702	9259	9682	133702	143384	3813	4883	2.85	3.41
PGVCL	639702	751578	104193	104896	743895	856474	85637	73221	11.51	8.55
UGVCL	249459	267443	17984	24353	267443	291796	21192	16289	7.92	5.58
TPL (A)	7682	8067	385	438	8067	8505	59	45	0.73	0.53
TPL (S)	2435	2504	69	63	2504	2567	5	3	0.20	0.12

SoP 11 A: System Average Interruption Frequency Index (SAIFI)

DGVCL								
Month	Ni - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=Σ Ni	SAIFI = Σ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	3182550	3057284	15526869	5.08	7.10	7.11	6.37	6.39
May-18	3251135	3063132	17374534	5.67				
Jun-18	3386792	3088032	32588264	10.55				
Jul-18	8986970	3173928	31135090	10.01	8.10	7.92		
Aug-18	8720256	3186062	24642940	7.92				
Sep-18	8755890	3189638	19862963	6.39				
Oct-18	8846952	3208560	20757004	6.36	5.27	5.35		
Nov-18	8413643	3224864	14691120	4.49				
Dec-18	8458182	3233030	16302512	4.97				
Jan-19	3077041	3241630	19445884	5.92	5.10	5.16		
Feb-19	3008461	3246873	15108836	4.63				
Mar-19	2961878	3237122	15604811	4.75				
Total		3179180	243040827	6.36				

SoP 11 A: System Average Interruption Frequency Index (SAIFI)								
MGVCL								
Month	N _i - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=Σ Ni	SAIFI = Σ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	2869835	3081671	7526424	2.44	3.92	3.92	3.53	3.54
May-18	2851641	3078264	8691870	2.82				
Jun-18	2970349	3088062	20078029	6.50				
Jul-18	2924360	3099197	19674136	6.35	5.27	5.26		
Aug-18	2912241	3112111	16488941	5.30				
Sep-18	2955423	3120167	12946747	4.15				
Oct-18	2881153	3128353	9310809	2.98	2.56	2.56		
Nov-18	2898292	3139768	6553669	2.09				
Dec-18	2929387	3147410	8246862	2.62				
Jan-19	3026775	3153067	8979202	2.85	2.39	2.39		
Feb-19	2926735	3156615	7558005	2.39				
Mar-19	2886514	3165728	6137805	1.94				
Total		37470413	132192499	3.53				

SoP 11 A: System Average Interruption Frequency Index (SAIFI)								
PGVCL								
Month	Ni - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=Σ Ni	SAIFI = Σ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	4219565.00	5077283.00	23486879.00	4.63	5.90	5.90	6.15	6.17
May-18	4414207.00	5082138.00	26944913.00	5.30				
Jun-18	4609568.00	5097200.00	39541551.00	7.76				
Jul-18	4649409.00	5111678.00	55586634.00	10.87	8.84	8.84		
Aug-18	4486973.00	5131618.00	45527855.00	8.87				
Sep-18	4346497.00	5161523.00	34996222.00	6.78				
Oct-18	4423761.00	5284324.00	31467081.00	5.95	5.40	5.40		
Nov-18	4135269.00	5294156.00	23640589.00	4.47				
Dec-18	4524384.00	5303064.00	30636157.00	5.78				
Jan-19	4630680.00	5312894.00	29721916.00	5.59	4.56	4.56		
Feb-19	4456768.00	5338702.00	22445779.00	4.20				
Mar-19	4176687.00	5337335.00	20766617.00	3.89				
Total		5337335.00	384762193.00	72.09				

SoP 11 A: System Average Interruption Frequency Index (SAIFI)								
UGVCL								
Month	Ni - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=∑ Ni	SAIFI = ∑ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	2285282.00	3356702.00	6433396.00	1.92	2.51	2.51	2.12	2.12
May-18	2444432.00	3403890.00	7075944.00	2.08				
Jun-18	2974679.00	3433041.00	12086832.00	3.52				
Jul-18	3215987.00	3464953.00	10478004.00	3.02	2.68	2.68		
Aug-18	3278696.00	3479392.00	9982959.00	2.87				
Sep-18	3132692.00	3512641.00	7549330.00	2.15				
Oct-18	3125481.00	3522286.00	6322128.00	1.79	1.69	1.69		
Nov-18	3103703.00	3534682.00	5459923.00	1.54				
Dec-18	3188968.00	3544083.00	6094318.00	1.72				
Jan-19	2438860.00	3557266.00	6930621.00	1.95	1.62	1.62		
Feb-19	2396554.00	3559929.00	5689852.00	1.60				
Mar-19	2066036.00	3578568.00	4727340.00	1.32				

SoP 11 A: System Average Interruption Frequency Index (SAIFI)								
TPL (A)								
Month	Ni - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=Σ Ni	SAIFI = Σ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	268218.00	1903107.00	329702.00	0.173	0.19	0.19	0.15	0.15
May-18	389949.00	1906779.00	480658.00	0.252				
Jun-18	286867.00	1910877.00	301017.00	0.158				
Jul-18	239628.00	1914212.00	266551.00	0.139	0.12	0.12		
Aug-18	160547.00	1919133.00	170580.00	0.089				
Sep-18	207172.00	1922263.00	225167.00	0.117				
Oct-18	288677.00	1925393.00	339984.00	0.177	0.14	0.14		
Nov-18	149413.00	1928433.00	154884.00	0.080				
Dec-18	251197.00	1930863.00	293676.00	0.152				
Jan-19	244107.00	1933124.00	267413.00	0.138	0.15	0.15		
Feb-19	286010.00	1936657.00	325845.00	0.168				
Mar-19	229493.00	1941036.00	293987.00	0.151				
Total		1922656.00	3449464	1.794				

SoP 11 A: System Average Interruption Frequency Index (SAIFI)								
TPL (\$)								
Month	Ni - Number of Customers for each sustained interruptions (in numbers)	N _T - Total No of customers served (in Numbers)	CI=Σ Ni	SAIFI = Σ Ni/Nt (Monthly SAIFI)	Average of monthly SAIFI on quarter basis	Quarterly SAIFI on average basis	Yearly SAIFI on average basis	Average of quarterly SAIFI
Apr-18	37020.00	605744.00	37020.00	0.061	0.05	0.05	0.03	0.03
May-18	26248.00	606410.00	30495.00	0.050				
Jun-18	18819.00	607007.00	18819.00	0.031				
Jul-18	6995.00	607542.00	11722.00	0.019	0.02	0.02		
Aug-18	9190.00	607664.00	9190.00	0.015				
Sep-18	10841.00	607947.00	10841.00	0.018				
Oct-18	12556.00	608064.00	12556.00	0.021	0.03	0.03		
Nov-18	12638.00	607549.00	12638.00	0.021				
Dec-18	21094.00	610204.00	21094.00	0.035				
Jan-19	24926.00	610608.00	30692.00	0.050	0.03	0.03		
Feb-19	13154.00	611066.00	13154.00	0.022				
Mar-19	17485.00	612428.00	17485.00	0.029				
Total		608519.00	225706.00	0.371				

SoP 11 B: System Average Interruption Duration Index (SAIDI)

DGVCL						
Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N _T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	11:49	2544284	3057284	23266916:50	07:36
2	May-18	13:17	2612818	3063132	29302165:21	09:33
3	Jun-18	13:58	2796269	3080447	43854187:48	14:14
4	Jul-18	09:57	3370417	3173928	34408783:04	10:50
5	Aug-18	09:55	3073370	3186062	29114203:08	09:08
6	Sep-18	10:11	3061117	3189638	25997920:19	08:09
7	Oct-18	10:47	3349742	3208560	28722731:28	08:57
8	Nov-18	09:30	3194353	3224864	19387131:24	06:00
9	Dec-18	09:41	3241204	3233030	25712306:29	07:57
10	Jan-19	10:53	3077041	3241630	27335689:46	08:19
11	Feb-19	11:10	3008461	3246873	22019759:43	06:45
12	Mar-19	10:43	2961878	3237122	24486353:00	07:27
	Total			3178548	13900339.52	08:44

SoP 11 B: System Average Interruption Duration Index (SAIDI)						
MGVCL						
Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N_T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	496863.00	2869835.00	3081671.00	658283457.00	3:34
2	May-18	612683.00	2851641.00	3078264.00	894103850.00	4:50
3	Jun-18	1030922.00	2970349.00	3088062.00	1425795088.00	7:42
4	Jul-18	855957.00	2924360.00	3099197.00	1115001203.00	6.00
5	Aug-18	734135.00	2912241.00	3112111.00	985853350.00	5.17
6	Sep-18	669511.00	2955423.00	3120167.00	941171505.00	5.02
7	Oct-18	607035.00	2881153.00	3128353.00	827031249.00	4.24
8	Nov-18	407226.00	2898292.00	3139768.00	564517075.00	3.00
9	Dec-18	557797.00	2929387.00	3147410.00	778336522.00	4.07
10	Jan-19	516463.00	3026775.00	3153067.00	745794707.00	3.57
11	Feb-19	482386.00	2926735.00	3156615.00	710372117.00	3.45
12	Mar-19	327369.00	2886514.00	3165728.00	399462281.00	2.06
	Total			37470413.00	10045722404.00	4.28

SoP 11 B: System Average Interruption Duration Index (SAIDI)						
PGVCL						
Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N_T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	1:32	4219565.00	5077283.00	1506548.93	7:07
2	May-18	1:45	4414207.00	5082138.00	1885596.18	8:54
3	Jun-18	2:00	4609568.00	5097200.00	2812739.50	13:14
4	Jul-18	2:41	4649409.00	5111678.00	4153067.68	19:29
5	Aug-18	2:17	4486973.00	5131618.00	3218598.74	15:03
6	Sep-18	1:56	4346497.00	5161523.00	2242646.08	10:25
7	Oct-18	1:29	4423761.00	5284324.00	2032676.27	9:13
8	Nov-18	1:19	4135269.00	5294156.00	1297464.19	5:52
9	Dec-18	1:43	4524384.00	5303064.00	2004432.99	9:04
10	Jan-19	1:43	4630680.00	5312894.00	1955277.58	8:49
11	Feb-19	1:58	4456768.00	5338702.00	1540917.87	6:55
12	Mar-19	1:50	4176687.00	5337335.00	1169440.16	5:15
	Total			5337335.00	25819406.16	116:06

SoP 11 B: System Average Interruption Duration Index (SAIDI)**UGVCL**

Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N_T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	14658:29	2285282	3356702	9541080:13	2:50
2	May-18	15222:38	2444432	3403890	10776129:49	3:09
3	Jun-18	21453:05	2974679	3433041	16464260:30	4:47
4	Jul-18	20519:47	3215987	3464953	13017126:51	3:45
5	Aug-18	19039:46	3278696	3479392	11790981:17	3:23
6	Sep-18	15890:06	3132692	3512641	9517686:16	2:42
7	Oct-18	12495:30	3125481	3522286	8552459:46	2:25
8	Nov-18	10968:20	3103703	3534682	7074820:14	2:00
9	Dec-18	14355:06	3188968	3544083	9272192:13	2:36
10	Jan-19	11277:44	2438860	3557266	8873285:01	2:29
11	Feb-19	11155:21	2396554	3559929	7771241:08	2:10
12	Mar-19	8649:16	2066036	3578568	5189541:40	1:27

SoP 11 B: System Average Interruption Duration Index (SAIDI)**TPL (A)**

Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N_T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	00:45	268218.00	1903107.00	211012.00	00:07
2	May-18	00:49	389949.00	1906779.00	345766.00	00:11
3	Jun-18	00:52	286867.00	1910877.00	251228.00	00:08
4	Jul-18	00:38	239628.00	1914212.00	170503.00	00:05
5	Aug-18	00:37	160547.00	1919133.00	105979.00	00:03
6	Sep-18	00:40	207172.00	1922263.00	141607.00	00:04
7	Oct-18	00:41	288677.00	1925393.00	201351.00	00:06
8	Nov-18	00:34	149413.00	1928433.00	82937.00	00:03
9	Dec-18	00:49	251197.00	1930863.00	199359.00	00:06
10	Jan-19	00:32	244107.00	1933124.00	147447.00	00:05
11	Feb-19	00:45	286010.00	1936657.00	202335.00	00:06
12	Mar-19	00:35	229493.00	1941036.00	168282.00	00:05

SoP 11 B: System Average Interruption Duration Index (SAIDI)						
TPL (S)						
Sr. No	Month	Ri = Restoration Time for each sustained interruption event (in hours)	Ni - Number of interrupted Customers for each sustained interruption event (in numbers)	N_T - Total No of customers served (in Numbers)	Customer Intt. Duration CMI = $\Sigma Ri * Ni$	SAIDI = $\Sigma Ri * Ni / N_t$ (Monthly SAIDI)
1	Apr-18	00:32	37020	605744	17060.00	00:02
2	May-18	00:37	26248	606410	17455.00	00:02
3	Jun-18	00:30	18819	607007	9157.00	00:01
4	Jul-18	00:28	6995	607542	5432.00	00:01
5	Aug-18	00:31	9190	607664	5544.00	00:01
6	Sep-18	00:36	10841	607947	7814.00	00:01
7	Oct-18	00:32	12556	608064	9060.00	00:01
8	Nov-18	00:33	12638	607549	7166.00	00:01
9	Dec-18	00:33	21094	610204	10560.00	00:02
10	Jan-19	00:55	24926	610608	30381.00	00:03
11	Feb-19	00:38	13154	611066	8744.00	00:01
12	Mar-19	01:48	17485	612428	16373.00	00:02

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)

DGVCL						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. $\Sigma \text{Imi} * \text{Nmi}$	MAIFI = $\Sigma \text{Imi} * \text{Nmi} / \text{Nt}$
1	Apr-18	20667.00	2558140.00	3057284.00	36744272.00	12.02
2	May-18	23381.00	2738921.00	3063132.00	41479850.00	13.54
3	Jun-18	33912.00	2784947.00	3077916.00	65652051.00	21.33
4	Jul-18	27660.00	2918409.00	3173928.00	59227876.00	18.66
5	Aug-18	25553.00	2668387.00	3186062.00	52574346.00	16.50
6	Sep-18	24070.00	2672188.00	3189638.00	43925665.00	13.77
7	Oct-18	23057.00	2858048.00	3208560.00	41281685.00	12.87
8	Nov-18	18182.00	2599570.00	3224864.00	32828971.00	10.18
9	Dec-18	16324.00	2631306.00	3233030.00	30371788.00	9.39
10	Jan-19	17765.00	2796351.00	3241630.00	36368799.00	11.07
11	Feb-19	14384.00	2490993.00	3246873.00	25486378.00	7.82
12	Mar-19	16469.00	2574239.00	3237122.00	29934697.00	9.11
13	Yearly Data	261424.00	32291499.00	3178336.58	495876378.00	13.02

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)						
MGVCL						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. ΣImi*Nmi	MAIFI=ΣImi*Nmi/Nt
1	Apr-18	18808.00	2761828.00	3081671.00	35391994.00	11.48
2	May-18	17962.00	2717381.00	3078264.00	32510171.00	10.56
3	Jun-18	28343.00	2843648.00	3088062.00	51375255.00	16.63
4	Jul-18	28325.00	2813098.00	3100752.00	51192593.00	16.51
5	Aug-18	25259.00	2796910.00	3113676.00	45172712.00	14.51
6	Sep-18	22342.00	2784140.00	3121734.00	39227465.00	12.57
7	Oct-18	22384.00	2775008.00	3128353.00	38298876.00	12.24
8	Nov-18	18468.00	2792722.00	3139768.00	32306580.00	10.28
9	Dec-18	17719.00	2813709.00	3147410.00	31948606.00	10.15
10	Jan-19	19374.00	2964035.00	3154656.00	39605130.00	12.55
11	Feb-19	15395.00	2729908.00	3158218.00	27146934.00	8.60
12	Mar-19	19241.00	2751055.00	3167343.00	35024114.00	11.06
13	Yearly Data			37479907.00	459200430.00	12.25

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)						
PGVCL						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. ΣImi*Nmi	MAIFI=ΣImi*Nmi/Nt
1	Apr-18	49492.00	4356082.00	5077283.00	35344916.00	6.96
2	May-18	51752.00	4419103.00	5082138.00	36607076.00	7.20
3	Jun-18	73820.00	4589393.00	5097200.00	52446318.00	10.29
4	Jul-18	89668.00	4745234.00	5111678.00	64222039.00	12.56
5	Aug-18	78593.00	4576647.00	5131618.00	53507194.00	10.43
6	Sep-18	63288.00	4545154.00	5161523.00	42212612.00	8.18
7	Oct-18	59049.00	4558586.00	5284324.00	41823646.00	7.91
8	Nov-18	58483.00	4708581.00	5294156.00	42353287.00	8.00
9	Dec-18	49460.00	4812950.00	5303064.00	37847191.00	7.14
10	Jan-19	43610.00	4771664.00	5312894.00	39159799.00	7.37
11	Feb-19	38274.00	4677479.00	5338702.00	27998408.00	5.24
12	Mar-19	44408.00	4734675.00	5337335.00	33822494.00	6.34
13	Yearly Data	699897.00	55495548.00	5337335.00	507344980.00	95.06

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)						
UGVCL						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. ΣImi*Nmi	MAIFI=ΣImi*Nmi/Nt
1	Apr-18	14516.00	3030777.00	3356702.00	13165581.00	3.92
2	May-18	14195.00	3073142.00	3403890.00	12431071.00	3.65
3	Jun-18	17339.00	3266748.00	3433041.00	16887310.00	4.92
4	Jul-18	17736.00	3215987.00	3464953.00	16288707.00	4.70
5	Aug-18	17065.00	3278696.00	3479392.00	15290385.00	4.39
6	Sep-18	15188.00	3132692.00	3512641.00	13653149.00	3.89
7	Oct-18	13813.00	2682830.00	3522286.00	12651291.00	3.59
8	Nov-18	12972.00	2515967.00	3534682.00	11938633.00	3.38
9	Dec-18	12987.00	2662444.00	3544083.00	12487804.00	3.52
10	Jan-19	12593.00	3250208.00	3557266.00	13594008.00	3.82
11	Feb-19	10924.00	3117369.00	3559929.00	10157046.00	2.85
12	Mar-19	12680.00	3122366.00	3578568.00	11447997.00	3.20

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)						
TPL (A)						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. ΣImi*Nmi	MAIFI=ΣImi*Nmi/Nt
1	Apr-18	1.00	14135.00	1903107.00	14135.00	0.007
2	May-18	3.00	6315.00	1906779.00	6315.00	0.003
3	Jun-18	3.00	3398.00	1910877.00	3398.00	0.002
4	Jul-18	2.00	3765.00	1914212.00	3765.00	0.002
5	Aug-18	1.00	88.00	1919133.00	88.00	0.000
6	Sep-18	3.00	11839.00	1922263.00	11839.00	0.006
7	Oct-18	1.00	5971.00	1925393.00	5971.00	0.003
8	Nov-18			1928433.00		
9	Dec-18	2.00	29458.00	1930863.00	29458.00	0.015
10	Jan-19			1933124.00		
11	Feb-19	2.00	2191.00	1936657.00	2191.00	0.001
12	Mar-19	2.00	4035.00	1941036.00	4035.00	0.002

SoP 11 C: Momentary Average Interruption Frequency Index (MAIFI)						
TPL (S)						
Sr. No	Month	IMi = Number of Momentary interruptions for the month (in numbers)	Nmi = Total no of customers for each momentary interruptions (in numbers)	Nt - Total no of customers served (in numbers)	Customer Intt. ΣImi*Nmi	MAIFI=ΣImi*Nmi/Nt
1	Apr-18			605744.00		
2	May-18			606410.00		
3	Jun-18			607007.00		
4	Jul-18			607542.00		
5	Aug-18			607664.00		
6	Sep-18			607947.00		
7	Oct-18			608064.00		
8	Nov-18			607549.00		
9	Dec-18			610204.00		
10	Jan-19			610608.00		
11	Feb-19			611066.00		
12	Mar-19			612428.00		

SoP 13: Details of Faulty Meters

DISCOM	No. of faulty meters at the start of the year				No. of faulty meters added during the year				No. of faulty meters replaced during the year				No. of faulty meters pending for replacement at the end of the year			
	Single Phase		Three Phase		Single Phase		Three Phase		Single Phase		Three Phase		Single Phase		Three Phase	
	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19
DGVCL	32064	32863	7500	10176	86472	100907	19789	31578	85673	107389	17113	33210	32863	26381	10176	8544
MGVCL	1470	210	0	0	86019	61698	10937	8076	87279	61699	10937	8076	210	209	0	0
PGVCL	38521	29108	27386	24840	20969	75761	11549	34415	30382	94445	14095	51308	29108	10424	24840	7947
UGVCL	1405	4001	2324	3100	77968	77547	21959	19861	75372	78238	21183	20662	4001	3310	3100	2299
TPL (A)	0	0	0	0	30575	31903	5340	6193	30575	31903	5340	6193	0	0	0	0
TPL (S)	27	10	6	1	10268	9770	3127	2499	10285	9737	3132	2487	10	43	1	13

SoP 14: Billing and Collection Efficiency and AT & C loss

DISCO M	Units input (MUs)		Net units billed (MUs)		Billing Efficiency (%)		Revenue Billed (Rs. Cr)		Revenue Collected (Rs. Cr)		Collection Efficiency %		Business Efficiency	
	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017- 18	FY 2018- 19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017- 18	FY 2018- 19	FY 2017- 18	FY 2018- 19
	A		B		C=(B/A)*100		D		E		F=(E/D)*100		G=(C*F)/100	
DGVCL	15987.54	23543.18	14860.63	21810.26	92.95	92.64	12203.61	17083.55	11727.32	16505.72	96.10	96.62	89.32	89.51
MGVCL	11636.17	12392.37	10518.66	11242.44	90.40	90.88	7377.69	7708.19	7381.55	7710.62	100.05	100.3	90.44	90.91
PGVCL	32731.30	36589.63	26877.07	29657.28	82.11	81.05	15298.52	16853.32	15211.66	16826.2	99.43	99.84	81.65	80.92
UGVCL	23056.82	25927.77	21268.43	23327.3	92.24	89.97	9583.70	10522.62	11658.87	13340.47	126.78	126.42	92.24	89.97
TPL (A)	7963.00	8301.00	7461.00	7835.00	93.69	94.39	5808.52	6459.81	5764.28	6511.84	99.24	100.81	92.97	95.15
TPL (S)	3424.00	3392.00	3301.00	3276.00	96.41	96.57	2439.30	2601.77	2413.67	2598.34	98.95	99.87	95.40	96.45

DISCOM	ATC Loss%	
	FY 2017-18	FY 2018-19
	H=100-G	
DGVCL	10.68	10.49
MGVCL	9.56	9.09
PGVCL	18.35	19.08
UGVCL	7.76	10.03
TPL (A)	7.03	4.85
TPL (S)	4.60	3.55

SoP 15: Release of new connections

DISCOM	No. of consumers connected at the start of the year		No. of connections pending to be released at the start of the year		No. of new applications received during the year		No. of connections released during the year		No. of connections pending to be released at the end of the year		No. of consumers connected at the end of the year	
	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19	FY 2017-18	FY 2018-19
DGVCL	2988183	3105829	50443	44901	112104	117596	117646	124631	44901	37527	3105829	3230460
MGVCL	2984771	3038953	1752	15760	59283	113047	53354	94720	15760	18545	3038953	3133614
PGVCL	4896808	5082177	49015	22711	166456	206506	185369	267045	49015	22577	5082177	5301193
UGVCL	3307434	3393388	40011	39338	85981	153828	86427	124893	39338	48570	3393388	3518281
TPL (A)	1850608	1898658	854	1104	63585	58114	57504	59720	1104	1004	1898658	1958378
TPL (S)	598996	606120	7	4	12763	11706	12436	11636	4	13	606120	617756

* in case of TPL, number of pending applications exclude applications pending due to consumer compliance and RO permission



સ્થાપના : ૧-૨-૧૯૮૭

સેવા - Services

સહકાર - Co-operation

સંપ - Unity

ગાંધીનગર શહેર વસાહત મહામંડળ, ગાંધીનગર ગાંધીનગર શહેર વસાહત મહામંડળ, ગાંધીનગર GANDHINAGAR SHAHER VASAHT MAHAMANDAL, GANDHINAGAR

Regi. No. : 288/90

Ashtalaxmi Appt. Plot No. 220, Sector-20, Gandhinagar-382 020.

PRESIDENT

Arun Buch

Ashtalaxmi Appt., Plot No.220,
Sec.-20, Gandhinagar-382 020.Ph. : (079) 23260370 (R)
98250 18134 (M)**VICE PRESIDENT**

Mayur S. Vyas

Plot-1260/1, Sector-7/D,
Gandhinagar-382 007.Ph. : (079) 23225380 (R)
98794 07992 (M)

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GEN. SECRETARY

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98255 31730 (M)

Kalubhai Desai

Ph. : (079) 23225297 (R)
98794 71037 (M)**TREASURER**

Kashyap Mehta

Ph. : (079) 23236330 (R)
93761 27703 (M)**SECRETARY SEVA**

Kishorbhai Dave

Ph. : (079) 23224339 (R)

Shashikant Modha

Ph. : (079) 23231766 (R)
(079) 23251874 (O)
94284 20943 (M)

Nilendu Vora

Ph. : (079) 23233445 (R)
94278 01403 (M)

Kishor Jikadara

Ph. : (079) 23261210 (R)
98794 75130 (M)**Activities at a glance**

- Social & developmental activities in Gandhinagar.
- Proper representation to the respective Govt. Deptt. regarding problems & solutions.
- Legal awareness programmes.
- Distribution of woollens in winter & footwears in summer to the have-nots.
- Free of cost renunciation of Ashes in the holy river Ganges.
- Traffic awareness programmes.
- Waterpots for thirsty birds.

સ્ટેટ એડવાઈઝરી કમીટીની બેઠક તા. ૪-૯-૨૦૧૯.

પ્રતિ,

સચિવશ્રી,
ગુજરાત વિજ નિયમન પંચ,
ગીફ્ટસીટી, ગાંધીનગર.Dir
26/9

G.E.R.C.

Inward No.

No-3853

Date : 6 SEP 2019

વિષય:- તા. ૧૭ સપ્ટેમ્બર-૨૦૧૯ ના રોજ
મળનાર સ્ટેટ એડવાઈઝરી કમીટીની બેઠક
ના મુદ્દાઓ.સંદર્ભ:- આપના પત્ર જીઈઆરસી-એડીએમ-૨૬-
સીએસી-૧-૧૩૮૩ તા. ૨૩-૮-૧૯.

શ્રીમાન,

સવિનય સાથે આપના ઉપરોક્ત પત્રમાં સૂચવ્યામુજબની સ્ટેટ એડવાઈઝરી કમીટીની બેઠકતા. ૧૭- સપ્ટેમ્બર-૨૦૧૯ મુકરર થઈ છે તેમાં ચર્ચામાં લઈશકાય તેવા મુદ્દાઓ નીચેમુજબ તથા સાથે જોડેલ નોંધ મુજબ છે જે જોઈજવા તથા ચર્ચામાં લેવા વિનંતી છે.

- (૧) વિજકંપનીઓના લીજબીલ ભરવામાટે ઈ.સી.એસ.પદ્ધતીમાં જોડાયા હોય તેવા ગ્રાહકોને દહની રાહત અને મુકતી આપવા તથા આંગે ગ્રાહકોની બેક સાથેના કરાર નથવાને કારણે પડતી મુશ્કેલી નિવારવા ખાસ કઠીએ ટોરંટપાવરમાં કનેક્શનોકાપવાસુધીના પગલાં અટકાવવા.
- (૨) ટોરંટપાવર તથા અન્ય વિજ કંપનીઓ જ્યાં સ્ટ્રીટલાઈટ ન વિજ જોડાણ આપે છે તેની મરામત,લાઈટચાલુ ન હોય તો પણ ચૂકવાતી સકમ અને ગ્રાહકોને પડતીહાડમારી નિવારના બાબત.
- (૩) વિજ કનેક્શન આપવા માટ જરૂરી મટીરીયલ ન હોવાથી જોડાણ મળવામાં થતો વિલંબ અટકાવવા જાગી મટીરીયલ પુરોપાડવા માટે જરૂરી વ્યવસ્થા ગોઠવવા બાબતે (ગાંધીનગરમાં ટોરંટપાવરમાં આ અવ્યવસ્થા ઉભી થતી હોય છે.)
- (૪) વિજબીલ આકારણીન વિવાદીતા દૂર કરવા તથા હાલમાં વીજભાર મુજબ બીલ આકારવામાં આવે છે તેને બદલે વપરાતી વિજ આધારેજ વિજબીલ ગ્રાહકોને મળવું જોઈએ અને બીલ ની રકમ વસુલ થવી જોઈએ. વિજભર સપ્લાય કરવામાં અને માંગણીવચ્ચે તફાવત રહે છે તેનુનુકશાન ગ્રાહકોએ ભોગવવું પડે છે, જેટલા કી.વો.વિજભારમાંગે તેટલો વપરાત નથી હોતો તેથી ગ્રાહકો વિજવાપરતા ન હોવા જતું રકમવસુલાય છે જેને બદલે વીજભાર મુજબ નહિ પરંતુ વપરાયેલવિજ મુજબ બીલ આકાર આકારવું જોઈએ.

(અરુણ ભુજા)

સ્ટેટએડવાઈઝરી કમીટીની બેઠક તા. ૧૭ સપ્ટેમ્બર-૨૦૧૯
થયમાં હાથધરવાના મુદ્દાઓ:-

મુદ્દા નં-૧

ગાંધીનગરમાં ટોરંટપાવર વિજ જોડાણ પ્રાપ્ત પાવર સપ્લાય કરે છે, તેની સાથે જોડાએલ મોટાપ્રમાણના ગ્રાહકો સરકારની નીતિ મુજબ કેશલેસ સીસ્ટીમને પ્રોત્સાહન આપવા તથા સીનીયર સીટીઝન, અર્પંગ અને અશક્ત લોકો અગર બહુ વ્યવસાય ગ્રાહકો ઈ.સી.એસ એટલે કે, ઇલેક્ટ્રોનિક કોમ્પ્યુટર સીસ્ટીમ દ્વારા યોગ્ય બીલ ભરવા માટે ફોર્મ ભરી સરકારની આ કેશલેસ સીસ્ટીમને આવકારી લાભ લેતા હોય છે તેમાં ખાસ કરીને પોતાના અનુભવ મુજબ ટોરંટપાવર કુ.નુ ઈ.સી.એસને ફોર્મ ભરી સ્ટેટબેંક દ્વારા સહી સીકકાકરી સ્વિકારી વર્ગોથી જેના આધારી બીલની કપાત થતી હોય છે તે અચાજક બંધ કરી ગ્રાહકોને સીધી વિજ કુપની બીલ ભરેલ નથી તેવી નોટીસ આપી કનેક્શન કાપવાની બીલમાં સૂચન આપી ગ્રાહકોની આબરુ પર સીધો પ્રહાર કરે છે અને પરિણામે ગ્રાહકોએ વિલંબીત બીલ ભર્યાનો દંડ પણ ભરવો પડે છે, તે સામે ટોરંટપાવર કુપની તથા અન્ય વિજ કુપનીઓની ઈસીએસ હેઠળ બીલ ભરતા ગ્રાહકોને રદાણા મળવું જોઈએ અને દંડની રકમ પરત મળવી જોઈએ. અને આ સરકારની નિતી મુજબ ઈસીએસ સીસ્ટીમને વિધિવત કાર્યાનિવિત કરી ગ્રાહકોને માનસીક, આર્થિક અને સામાજિક નુકશાન અટકાવવા યોગ્ય નિતી ઘડવી જરૂરી અને અનિવાર્ય છે. અને સીસ્ટીમ અંગે જરૂરી લાગે ત્યાં રે લાગતી વળગતી બેંકો સાથે પરામર્શ કરી વિજ બીલ ભરનારને દંડ અને અનેક હાડમારી માંથી મુક્ત કરવા હુકમો થવા જરૂરી છે.

(૨)

સ્ટ્રીટલાઈટ એ જાહેર સેવાની બાબત છે અને તે પાડવાની ફરજ વિજપુરવઠો પુરો પાડતી કંપનીની હોવી જરૂરી છે, તેને બદલે પેટ કો-ટ્રક્ટ આપે તેવળી વીજી પેટાકંપનીને આપે તેની જવાબદારી મુકરર થતી નથી જેને કારણે જાહેરસેવા ખોરવાય છે, વળી સ્ટ્રીટલાઈટની ફરિયાદ કરનાર ને પોલ નંબર જણાવવાનું પણ કહેવાય છે, પોલનંબર કોણ લખે છે ? તેની જાણકારી પણ હોતી નથી વળી ક્યા ટેલીફોનપર ફરિયાદ કરવી તે પણ સામાન્યલોકોજાણતાનથી તેની કચેરીનું પણ પુરું સરનામું અપાતું નથી તે બધુંજ ગ્રાહકો સુધી જે કરભરી સેવાઓ ઉપલબ્ધ કરે છે તેને માહિતિ પુરી પાડવાની ફરજ મુકરર કરવી જોઈએ.

આજ પ્રશ્નમાં બીજો પ્રશ્ન એવો ઉભો થઈ રહ્યો છે કે જે સ્ટ્રીટલાઈટ ના બલ્બ બદલે છે તે કેબલકોલ્ટના નામે સ્ટ્રીટલાઈટ બંધ રાખે છે જેને કારણે કંપનીનેતો પોલદીઠ રકમ મળે છે પરંતુ સેવા ઉપલબ્ધ થતી નથી. વળી કેબલની મરામત કોણ કરશે ? તેની જવાબદારી પણ મુકરર થવી જોઈએ જેથી નગરજનો સ્ટ્રીટલાઈટની સેવાથી વંચીત રહી નહિ, સરકારી નાણાનો દુરવ્યવચ અટકે, અને જવાબદારી મુકરર થાય તેવું ગોઠવવું અનિવાર્ય છે.

ગાંધીનગરના ૫૦ ટકા ઉપરાંત સ્ટ્રીટલાઈટો બંધ છે તેમાટેની પણ જવાબદારી મુકરર થવી જરૂરી છે.

વીજ જોડાણ આપનાર કુપની પાસે વીજજોડાણ ઉપલબ્ધ કરવા માટે જોઈતી સાધન સામગ્રી ઉપલબ્ધ હોતી નથી તેને કારણે ગ્રાહકે વીજ જોડાણ મેળવવાની રકમ ભરપાઈ કરી હોવા છતાં તેને જોડાણ મળતું નથી તેથી જોડાણ આપતી તમામ કુપનીને સાધનસામગ્રી, મીટર, કેબલ વિગેરે ઉપલબ્ધ રાખવા અગર ગ્રાહકને વ્યાજબી રકમ ચૂકવવી અને આર્થિક નુકસાનની માટે જવાબદારી મુકરર કરવી જોઈએ.

ગાંધીનગરમાં જી.આઈ.ડી.સી.માં જોડાણો આપવામાં વિલંબ થાય છે અને વાધાઓ કાઢી પારદર્શકતા જાળવાતી નથી હોતી તેથી આશંગે ચોકકસ ધોરણો નક્કી કરવા જરૂરી છે.

સ્ટેટ એડવાઈઝરી કમીટીમાં ચર્ચાનો મુદ્દો ૪

વિજ્ઞાન આકારણીની વિસ્તૃતતા ફીક્સ ચાર્જ દર કરવા બાબત. માટે આ અગાઉ તા. ૩૦-૩-૧૯ નારોજ કરવામાં આવેલ જે અલગથી બીડેલ છે. તેની સાથે મારા પર આવેલ રજુઆત પણ બીડુ છું.

હકીકતમાં (એનાલોન મીટર) પહેલા જુના મીટરો હતા તેમાં કેટલીક સુવિધાઓ ન હોવાથી ફીક્સ ચાર્જ મુકરર થયા હશે. હવે તો ઈલેક્ટ્રોનિક મીટરો આવતાં અડીજીટલ ટેકનોલોજીને કારણે ખરેખર વપરાશ વીજભારમુજબ બીલ ગ્રાહકને મળવું જોઈએ અને આકારણ જોઈએ. નહિ કે કરાર આધારીત. હાલમાં કરાર આધારીત વીજભાર મુજબ બીલ આકારવામાં આવે છે તેને બદલે ખરેખર વપરાશમુજબ વીજબીલ આકારણ જોઈએ તેવી રજુઆત છે.

આપ્રકારની જોવાઈઓ રુતુઆધારીત ઉધોગો જેવાકે બરફકારખાને, જીનીંગ-પ્રેસીંગ ફેરટરી અને અન્ય ઉધોગોને લાભ આપી વપરાશઆધારીત બીલ વસુલાય છે. જ્યારે ઘરવપરાશમાં કરાર આધારીત બીલ વસુલાય છે જે - ઘરવપરાશના ગ્રાહકોને અન્યાય કરે છે. કારણ કે, ઘરવપરાશમાં પણ એસી-બારોમીટરના ચાલતા હોતાં નથી તેજ રીતે અન્ય સાધનોનો પણ બારોમીટર ઉપયોગ થતો નથી જેથી વીજભાર માગ્યામુજબનો ગ્રાહક વાપરતો હોતોજ નથી, તેથી તેને ઉધોગમાં જે લાભ આપવામાં આવે છે તે વીજભાર માં રાહત આપી ઘર-વપરાશના ગ્રાહકોને વીજભારની રાહત મળવી જોઈએ.

જુદા નં. ૪ ૨૧૫



સેવા - Services

સહકાર - Co-operation

સંપ - Unity

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Regi. No. : 288/90

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Activities at a glance

- Social & developmental activities in Gandhinagar.
- Proper representation to the respective Govt. Deptt. regarding problems & solutions.
- Legal awareness programmes.
- Distribution of woollens in winter & footwears in summer to the have-nots.
- Free of cost renunciation of Ashes in the holy river Ganges.
- Traffic awareness programmes.
- Waterpots for thirsty birds.

તા. ૩૦-૩-૨૦૧૬.

પ્રતિ,
શ્રી

વિષય:- વિદ્યુતબીલમાં વસૂલ કરવામાં આવતા ફીક્સ ચાર્જને કુદરતી-ન્યાયની બદલે બરેખેર વપરાશ મહત્તમ વીજવપરાશમુજબ અચકરવા બાબત.

શ્રીમાન,

સવિનય ગાંધીનગરશહેર વસાહત મહામંડળ ગાંધીનગરશહેર તથા ગુડા એટલેકે ટોરંટપાવર તેમજ ગુજરાત વિદ્યુતબોર્ડ હેઠળની કંપની એના વિજ વપરાશના ગ્રાહકો છે તેમાં નીચેની વિસ્વાદિતાઓ ધણા લાખા ચમચથી ચાલી આવે છે અને તેનો આર્થિકબોજ ગ્રાહકો સહન કરી રહ્યા છે તેને ન્યાય આપવા આપના ધ્યાને મુકવા રજૂઆતો મળતી રહી છે તેને કુદરતી-ન્યાયની દ્રષ્ટીએ તથા ઈલેક્ટ્રીસીટી એક્ટ ની કલમ ૧૨૬ નો પણ ગ્રાહકોસામે ઉપયોગ કરી ગ્રાહકોને અન્યાય થઈ રહ્યો છે તેની ઉડી અને ઝીણવટભૂરી તપાસ જરૂરી અને આવશ્યક છે. તેથીનીચેની- હકીકતો લક્ષમાં પ્રશ્નનો ઉકેલ તથા ગ્રાહકોને રાહત આપવા વિનતી છે. મોટાભાગે ઉનાળાના ચાર મહિનામાં પડતી ગરમીથી બચવા માટે વિજવપરાશ વધતો હોય છે, અન્ય આઠમાસ વાતાવરણ બદલાતું હોઈ વિજ વપરાશ અને વિજભારણ ઘટતું હોય છે. તેથી આવા સંજોગોમાં વીજવપરાશ કારો પાસેથી વીજભારના સ્લેબ મુજબ બારેય મહિનાનું ફીક્સ ચાર્જ પ્રમાણે બીલ આકારવામાં આવે છે.

એનાલોગમેટર હતા ત્યારે વીજભાર વીજવપરાશ કદાચ નોંધી અચૂકી શકાતોનહતો, પરંતુ હવે ડીજીટલ મીટર આવતા, તે નોંધી શકાય છે., તો વીજવપરાશકારોને તેમણે બરેખેર વાપર્યા મુજબના વીજભાર પ્રમાણે ચાર્જ વસૂલ કરવો જોઈએ, તેવી ગાંધીનગરશહેર વસાહત મહામંડળની જાહેર જનતા અને બહોળા 'ટોરંટપાવર તથા વિદ્યુતબોર્ડના' બહોળા વપરાશકારોની માગણી છે. જાણવા મળ્યા મુજબ ધણા મૈથોગિક એકમો સળગ એક વર્ષ ન ચાલતા હોય અગર આશિક ચાલતા હોય કે જેટલામહિના ચાલ્યાહોય તેટલું ફીક્સ ચાર્જ વસૂલવામાં આવે છે.

માનવીયરીતે કુદરતી-ન્યાયની દ્રષ્ટીએ આ વિસંગતતાને દૂર કરી ફીક્સ ચાર્જ વપરાશને આધારે કરવામાં આવે નહિ કે સ્લેબ અનુસાર. તેવી માગણી ગ્રાહકોનીરહી છે તે તપાસી જુવુ જરૂરી અને અનિવાર્ય છે. તેજરીતે ઉધોગ અને ગૃહવપરાશકારો માટે કરભારણમાં પણ તકાવત રાખવામાં આવે છેત તેપણ દૂર થવો જરૂરી છે.

(અરુણ બુચ.)
પ્રમુખ.

૪ ૨૧૨

એક જાગૃત નાગરીક,
બધા ગ્રાહકોના હિતમાં રજૂઆત.

પ્રતિ,

Chairman
Gujarat Electricity Regulatory Commission
6th Floor, GIFT ONE,
Road 5C, Zone 5, GIFT City,
Gandhinagar - 382355,
Gujarat, India.

વિષય : બિલમાં વસૂલ કરવામાં આવતા ફિક્સ ચાર્જ ને કરારીત વિજભાર ના બદલે ખરેખર વપરાયેલા મહત્તમ વીજવપરાશ મુજબ આકારવા બાબત.

મહોદય શ્રી,

હાલના સમયે વીજબિલમાં આકારવામાં આવતી ફિક્સ ચાર્જ ની રકમએ જે-તે કેટેગરીમાં કરારીત વિજભાર પ્રમાણે વસૂલ કરવામાં આવે છે, જે નીચેના કોષ્ટક મુજબ છે અને તે વસૂલવા નું કારણ વીજઉત્પાદન, પ્રવહન, અને વિતરણ માટે થતો મૂડીરોકાણ ખર્ચ છે. મારા માનવા પ્રમાણે તે પહેલાના સમયમાં જૂના એનાલોગ મીટર(ચકરડા વાળા) હોવાથી ખરેખર વપરાયેલ મહત્તમ વીજવપરાશની ચકાસણી ની સુવિધા ના હોવાથી અપનાવેલ હશે. પરંતુ અત્યારે જ્યારે મોટાભાગના મીટરો ઇલેક્ટ્રોનિક્સ અને ડિજિટલ ડિસ્પ્લે વાળા છે અને તેમાં મહત્તમ વીજવપરાશ નોંધાય પણ છે જ તો હવે જૂની પદ્ધતી છોડીને જે-તે બિલપીરીયડમાં ખરેખર વપરાયેલ મહત્તમ વીજવપરાશ મુજબ જ ફિક્સ ચાર્જની આકારણી થવી જોઈએ.

કારણકે અત્યારના સંજોગોમાં મોટાભાગના રહેણાક અને વાણિજ્ય હેતુના ગ્રાહકોની મહત્તમ વીજવપરાશ એ કરારીત વીજવપરાશ કરતાં ઓછીજ છે (ખાસ તો ઉનાળા સિવાય ના મોટાભાગના સમયમાં). અને આમ વર્ષ દરમિયાન મોટાભાગનો વસૂલકરેલ ફિક્સ ચાર્જ એ વણવપરાયેલ રહેતો હોવા છતાં ગ્રાહકોના માથે ચોક્કસ રકમ ફિક્સ ચાર્જ તરીકે ભરવાની ફરજ પડે છે. અત્રે એ ઉલ્લેખનીય છે કે હાલમાં એલ.ટી.એમ.ડી. ટેરીફના ગ્રાહકોને મહત્તમ વપરાશ મુજબ બિલ આકારવામાં આવેજ છે તો આવા પ્રકારનો લાભ તમામ કેટેગરીને પણ મળવોજ જોઈએ. મોટાભાગના રહેણાક અને વાણિજ્ય હેતુના ગ્રાહકો આ બધી બાબતો વિગતે ઊંડાણ પૂર્વક જાણતા ના હોવાથી તેમનેભાગે સહનકરવાનું આવતું હોય તેવું દ્રષ્ટીગોચર થાય છે.

જે કમ્પનીના પણ વહીવટીય હિતમાં જ છે..

સહકારની અપેક્ષા સાથે, જય હિન્દ

લિ. એક જાગૃત નાગરીક,



Gujarat Chamber of Commerce & Industry

ગુજરાત વેપારી મહામંડળ

ગુજરાત કામચંદ

8001

Date: 07th September, 2019

To,

The Secretary,
Gujarat Electricity Regulatory Commission
6th Floor, GIFT ONE,
Road 5C, Zone 5, GIFT City,
Gandhinagar, Gujarat – 382355

Durgesh V. Buch
President

Natubhai Patel
Sr. Vice President

Bhargav Thakkar
Vice President

Sanjeev Chhajer
Secretary

Dilip M. Padhya
Secretary (R)

Pathik S. Patwari
Treasurer

Sub : Agenda points for 26th State Advisory Committee (SAC)
Ref : Your letter no. GERC/Adm-26th SAC/1383 dated 23/08/2019

Dear Sir,

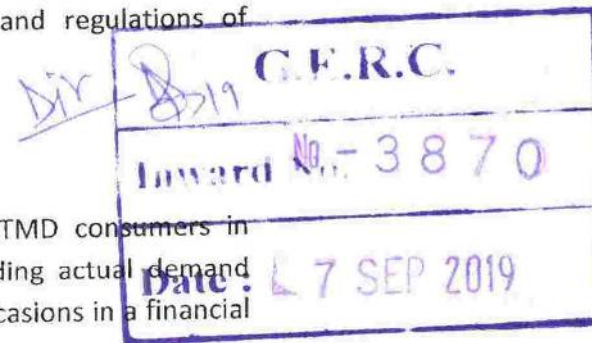
We proposed to take below stated points during 26th SAC to be held on 17/09/2019;

- 1) Points already discussed in 25th SAC.
 - (a) Details of JGY feeders transferred to industrial feeders.
 - (b) Matter of levy of property tax / rent on electricity network in TPL's area.
 - (c) Status of per KVA charges for HT connection.
 - (d) Refusal of providing electricity connection by UGVCL citing lack of availability of transformers as reason.
 - (e) Formation of special cell for removal of difficulties in Implementation and interpretation of rules and regulations of GERC.

- 2) Clause 4.95 of supply code for LTMD Consumers:

Not to insist to convert in HT connections to LTMD consumers in context to clause 4.95 of supply code i.e. exceeding actual demand beyond 5% of contract demand for four or more occasions in a financial year.

Due to severe slowdown and also looking to small investment capacity of LTMD consumers, in case of such instance, they should be exempted from converting to HT connection on submission of undertaking (and to



follow it) that they should not violate clause 4.95 of supply code henceforth.

This would save so many small LT connections from closing down.

3) Recovery of tariff as per GERC order only:

It has been observed that either by mistake or due to misinterpretation of provisions of GERC's tariff order / rules and regulations, discoms have erroneously charged consumers on higher side. In such case, discoms should refund such excess charged amount from date of commencement of mistake along with interest as per the Electricity Act, 2003.

4) Following CGRF / Ombudsman Order:

CGRF / Ombudsman are established to reduce legal complications to consumers. But it is observed that discoms are not adhering to order of CGRF / Ombudsman and in some cases of GERC / APTEL also and moves matter to Hon'ble High Court or Hon'ble Supreme Court.

It is legal right of discom to avail the legal remedial options. But when there is no stay by Hon'ble High Court (or higher court), discom should first follow order of CGRF / Ombudsman / GERC / APTEL subject to final decision of legal proceeding.

At present it seems that discoms are trying to get consumer tired by way of prolong legal proceedings consuming time and money of consumers.

5) Corridor for erecting / laying electric lines / cables:

There are severe RoW issue for laying electric feeders / cables. About 10 years back, GERC has formed one committee to study RoW issues. But seems no actions to resolve this issue are taken by concerned authorities. Steps are required by concerned Government authorities to have separate corridor for erection / laying of electric feeders. In case of absence of such corridor, it is envisaged that in ensuing few years, it

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President

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Secretary

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Secretary (R)

Pathik S. Patwari
Treasurer

would be practically like next to impossible to lay new HT / EHT lines in so many areas of Gujarat.

6) Recovering minimum charges under clause 4.34 of supply code:

GETCO is normally not carrying-out erection of EHT line and is mandatorily asking consumers to carry-out line work. The reason for this is, it is very difficult to carry-out erection of EHT line work in view of severe RoW issues from private owners / Government authorities. But when consumer is unable to complete line work as per Standard of Performance (i.e. within 6 months for EHT lines), discom is starting to bill for minimum demand charges after serving notice of 60 days under clause 4.33 of supply code. This 6 month period is fixed for 66 KV as well as 220 KV lines ranging from 1 metre to any length and in any area. This is not right as per natural justice too.

Discom / GERC is authority to extend time limit but normally consumers are not aware of it and also discoms are not entertaining such request. Whereas in case of GERC, consumer has to file petition for time limit extension and looking to work load of GERC, it is taking long time to decide such petition and consumer has to block huge amount.

It is therefore suggested to look into the matter and to decide such cases by some special arrangement for expeditious result.

7) Discom denying connection on account of non-availability of infrastructure:

As per section 42 (1) and 43,

".....it is the statutory duty of the distribution licensee to supply electricity to an owner or occupier of any premises located in the area of supply of electricity of the distribution licensee,...."

But it has been noticed that discom (UGVCL) is denying connection on rated voltage level decided by GERC (clause 3.2 of supply code) on pretext of non-availability of infrastructure.

Discom should upgrade, extend and strengthen its distribution system to meet the demand of electricity on rated voltage in its area of supply.

Durgesh V. Buch
President

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Gujarat Chamber of Commerce & Industry



ગુજરાત વેપારી મહામંડળ

૧૯૪૯ થી કાર્યરત

In case of failure of discom to perform its duty, consequent financial implications should be borne by discom.

We request you to take-up above issues as agenda item in 26th SAC. We request you to kindly note that Chairman of our Energy Committee Shri D.S. Doshi shall be representing GCCI in the said meeting and discussing the abovementioned points.

Thanking you.

Yours faithfully,

Tanmay Mehta
Secretary General

Durgesh V. Buch
President

Natubhai Patel
Sr. Vice President

Bhargav Thakkar
Vice President

Sanjeev Chhajer
Secretary

Dilip M. Padhya
Secretary (R)

Pathik S. Patwari
Treasurer