

UGVCL

Peak of Success

(2020-21)

Uttar Gujarat Vij Company Limited

A POWER DISTRIBUTION COMPANY (Distributing Continuous Power In North Gujarat)

CIN – U40102GJ2003SGC042906

Acknowledgement

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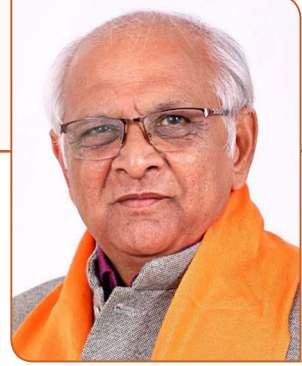
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Message



Uttar Gujarat Vij Company Limited, which has been in existence on a commercial basis since 01.04.2005, has always shown commitment to the development of North Gujarat with a goal of “raising the standard of living through sustainable power supply”. As a result, the company has made Gujarat proud by receiving about 29 prestigious national and national-level awards in the field of power supply during 16 years.

I feel really proud that UGVCL has maintained its position as the first-class power distribution company with an A+ rating out of 41 power distribution companies from 22 states of India. For the 9th time in a row, from 2012 to 2021, it has maintained its identity as a leading power distribution company.

UGVCL has also been at the forefront in achieving the public welfare targets set by the Government. The company has achieved targets of ‘**Kisan Suryodaya Yojana**’ and I am confident that it will also achieve the goals of the second phase of the targets.

I heartily congratulate all the employees of UGVCL for their excellent hard work and also commend their efforts to present their entire work every year.

It gives me immense pleasure to see that Uttar Gujarat Vij Company Limited (UGVCL) is publishing a book, ‘**UGVCL: Peak of Success**’, to share the consolidated details about the company’s work and achievements.

I am confident that this book will prove to be a guide for other power distribution companies in the field of power distribution in the days to come.

BHUPENDRABHAI PATEL
Chief Minister, Gujarat State



Message



Uttar Gujarat Vij Company Limited, since its inception, has played a major role in the development of North Gujarat by providing uninterrupted and reliable power supply.

The company has excelled, not only at the state level but also at the national level and made Gujarat proud. Due to Team work, the company has received many national and national-level awards for various achievements. It is really heartening that the company has also maintained its A+ rating successfully for nine consecutive years. All current and former employees deserve congratulations for that.

UGVCL has always been at the forefront when it comes to achieving targets of the power-related various initiatives of the state government. I applaud the company for successfully implementing various government initiatives and helping boost the development of the state.

I am very glad to see that our power companies are not only really good at their work, but they are also making a point to document it all as well. UGVCL has come up with a bright idea of compiling all its activities on a yearly basis. This book, **'UGVCL: Peak of Success'** is a result of the same outstanding initiative. The book has meticulously compiled all the works done by the company at different levels.

I am impressed with the performance outlined in the book presented by the company. The work done by the various departments of the company excels in all areas compared to other power distribution companies. I hope that the work outlined in the present book will be a guide for other power distribution companies as well as a motivator for future successful activities.

I would like to note that the company has made Gujarat proud across India.

I urge you all to continue such wonderful work in the future as well.

Kanubhai M. Desai
KANUBHAI DESAI

Energy Minister, Gujarat State



Message



A power distribution company always serves as a crucial backbone for any development initiatives launched by the state. I am really happy to see that Uttar Gujarat Vij Company Limited has always played a vital role to its full potential.

The company has created a bright history through its successful operations over the last 16 years. It is heartening to see that the former spearheads of the company have set high standards for the company and the current officials have made sincere efforts to meet them. All these have resulted in the achievements of targets of various initiatives by the Government.

It is worth noting that UGVCL has made Gujarat proud not just at the state level, but also at the national level. It's particularly encouraging that the company has retained an A+ rating for nine years in a row. The company has achieved numerous national and national-level accolades for various achievements as a result of its employees' hard work. For that, all current and former staff should be congratulated.

I am happy that the company has compiled all its activities in the year 2020-2021 as this book '**UGVCL: Peak of Success**'. The performance of various departments of the company has been well captured here. This kind of work audit will be helpful to UGVCL and other power companies in the state in many ways.

I congratulate all the employees involved in the successful publication.

I am sure that this book will serve as a guide for the future. I believe that the company's attempt to present its activities will be a beacon for other power distribution companies in Gujarat in the coming years.

I urge you to continue to brighten the name of Gujarat in India by achieving more success in the field of power distribution through hard work.

MUKESHBHAI PATEL

Minister of State for Energy, Government of Gujarat



Message



The **Hon'ble Prime Minister of India, Shri Narendra Modi** identified power sector as a catalyst to transform and enable an energy independent India. Under his visionary leadership, the Government's initiatives are unlocking India's immense potential and paving the path for an 'Aatmanirbhar Bharat'.

The Prime Minister called for strengthening the power distribution system with the determination to provide regular power supply to the hinterlands of India and light every household. Earlier, as the then Chief Minister of Gujarat, his efforts enabled the state to become energy surplus with enhanced distribution capabilities. It is a matter of pride that the state continues this legacy.

The '**Uttar Gujarat Vij Company Limited**' has successfully implemented an 8-hour power supply scheme across the villages of Gujarat. The company continues to be India's leading power distribution company. Reliable and consistent power supply plays a crucial role in the holistic development of agrarian areas like North Gujarat. In addition, uninterrupted power supply is crucial for manufacturing industries, commerce, and trading hubs. It is a significant factor in state's flourishing businesses, employment opportunities, and impacting the lives of million families.

To realize the vision of the Prime Minister, the company endeavors to strengthen Gujarat's energy ecosystem and prepare for an energy surplus India. The book '**UGVCL: Peak of Success**' published by the state PSU offers insights on all the activities and operations carried out by the company. It includes historical initiatives of the company and guides its future strategies. The company recognizes and owes its success to its strong and selflessly working staff who have done remarkable job even during crisis such as the Covid-19 pandemic and cyclones.

I wish all the very best to UGVCL for its future endeavors and trust it will continue its journey to reach the pinnacle of success.

My heartiest congratulations to all staff of the company on their achievements so far.

MAMTA VERMA, IAS

Principal Secretary, Energy & Petrochemicals Department, Chairperson, GUVNL



Message



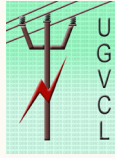
I am happy to note that Uttar Gujarat Viji Company Ltd., along with all other state DISCOMs are doing impressive work to empower the socio economic lives of the people in the state.

I congratulate all the officers and employees of UGVCL for compiling its work into a book 'UGVCL: Peak of Success' for the year 2020-21. I am sure, by such work and achievements compiled year after year, will not only serve as ready reckoner of its achievements but also inspire the company to set higher goals for itself and strive to achieve new milestones in future.

I am delighted to note that UGVCL has maintained its position as India's leading state-owned Power Distribution Company and is continuously ranked A+ by MoP.

I am sure that UGVCL will continue to contribute significantly for the social & economic development of North Gujarat.

JAY PRAKASH SHIVAHARE, IAS
Managing Director, GUVNL



Message



For the last 16 years, Uttar Gujarat Vij Company Limited has been committed to ensure social, economic and all round development of North Gujarat through a strong power distribution system.

The company has achieved 31 national and national-level awards and received A+ rating continuously for the past nine years. The company is continuously contributing to the development of the state and the nation.

But as it is said, reaching the top is relatively easy, but maintaining the leadership position is tough. The company is doing its best to maintain its exemplary work and maintain this leadership. To achieve this and cultivate a culture of review-based performance enhancement, the company's past activities, current activities and future performance are constantly being monitored and executed.

In order to maintain its position as India's leading power distribution company, the company has started reviewing its annual operations. The aim is to analyse the activities being carried out every year and doing better in the coming year.

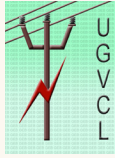
This book '**UGVCL: Peak of Success**' is an outcome of the same initiative.

A similar publication was published last year, and it has successfully conveyed the company's performance to its stakeholders and has gained more confidence in the company's sound performance. The company received very heartening encouragement from the state government for the initiative and we have decided to continue the process. This year too, we have captured minute details of the company's performance at various levels and tried to create a pathway for the next few years.

The efforts made by the employees of the company for this publication, even during the pandemic are commendable. I congratulate all the employees for this.

I also take this opportunity to thank all the officials and employees for their valuable contribution in making this compilation useful to everyone.

PRABHAV JOSHI, IAS
Managing Director, UGVCL



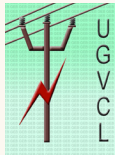
Message

I am proud to be a part of the successful operations of Uttar Gujarat Vij Company Limited. Last year, when we compiled and published our activities in a book format, we had expressed confidence that we will surpass our own goals. We have proved that we were right. I would like to thank the Managing Director of the company and all my colleagues for their continued support. We have worked hard and achieved success even in this difficult times and I am sure we will continue our whole-hearted efforts in the coming years.




P. B. Pandya,

Chief Engineer (Operation) UGVCL



Message

Last year, we had made a presentation before the Managing Director about various activities the company carried out during the past year. He suggested compiling it all in a book form and now, this seems to have become a yearly practice! This publication has been made possible with the joint efforts of the officials of all the departments and their team members. The company management has consistently encouraged them to perform better than last year. I am confident that the planning and guidance of the company's operations for the coming year will emerge through this publication. Congratulations to all the department heads and their teams for the successful activities.

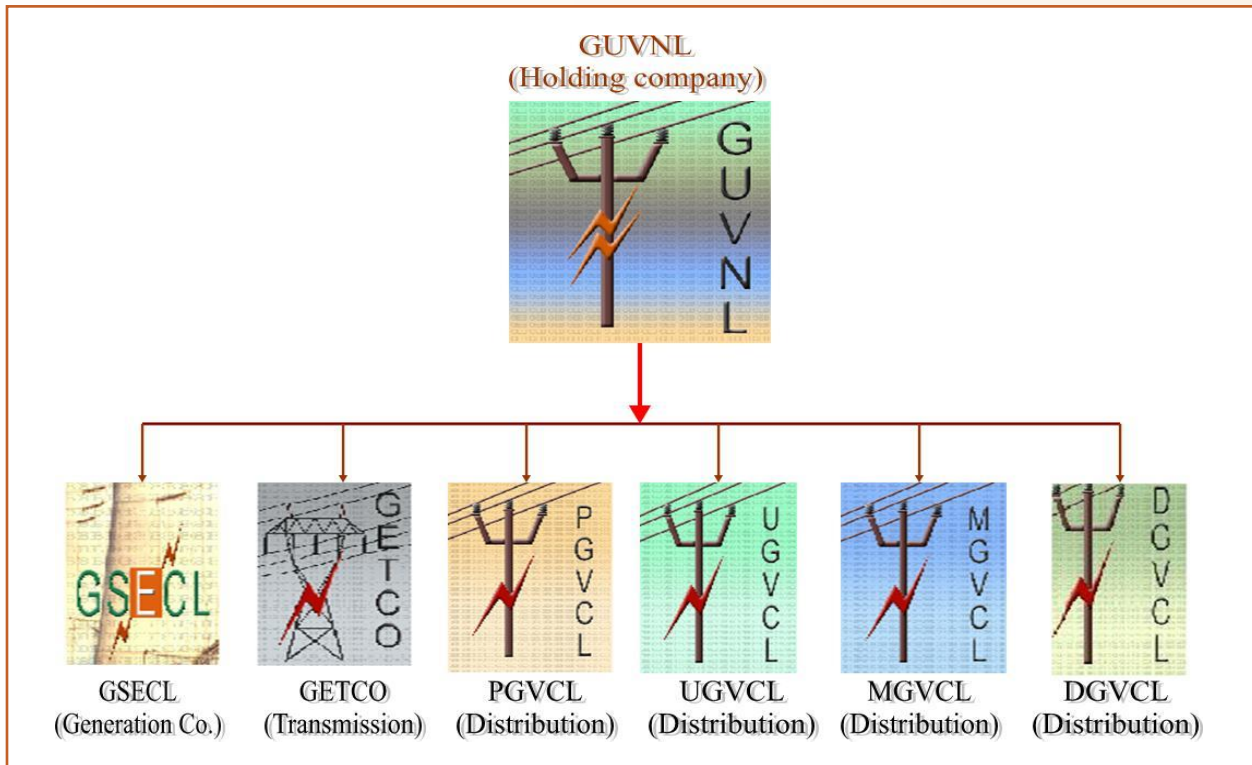




J. K. DARJI

Additional Chief Engineer (Tech.), UGVCL

UGVCL: Subsidiary company of GUVNL



UGVCL: Vision & Mission

Vision:

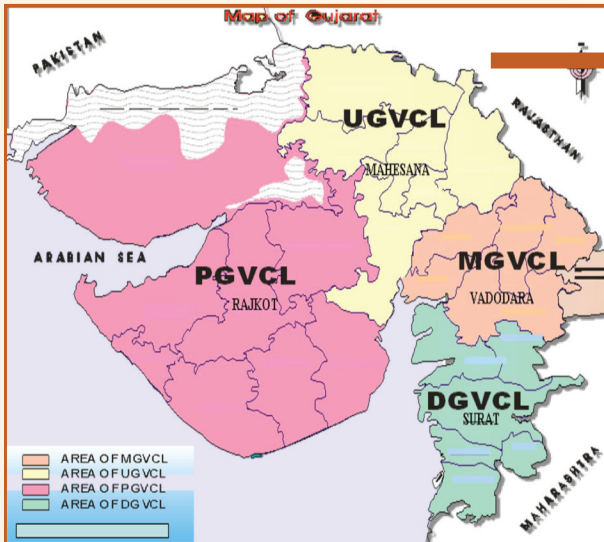
- To be world class electricity utility, striving for the social and economic development of our region.

Mission:

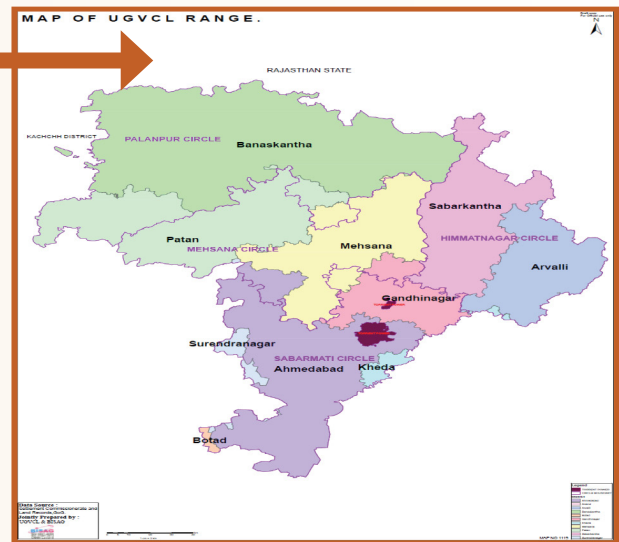
- "We meet the expectations of our consumers and stakeholders by: Providing a sustainable, affordable, safe and reliable electricity supply
- Providing prompt and efficient consumer services
- Developing and incentivizing our employees
- Being the preferred equal opportunity employer
- Undertaking our business in an environmentally acceptable manner"

UGVCL: Area

GUJARAT



UGVCL



UGVCL Overview (As on 31.03.21)

Area	Sq. Km	49,950
District Covered	No.	7+3 (Partly)
Town	No.	38
Village	No.	4,502
Population (Census 2011)	No.	1,19,12,882
Circle	No.	4
Regional Store	No.	4
Division	No.	22
Sub-Division	No.	141+3 (REC)

UGVCL Overview (As on 31.03.21)

66 KV Sub-Station	No.	533
66 KV & 11 KV Feeder	No.	5924
HT Line	Km	112034
LT Line	Km	74711
Transformer Population	No.	340872
% Transformer Failure (FY 2020-21)	%	7.11
Total Consumer	No.	3803131
Employee Sanction (Technical)	No.	5545
Employee Sanction (Non-Tech)	No.	3853

Consumer and Feeder Profile (As on 31.03.21)

Consumer & Load Mix		
Category	Nos.	Load in MW
Residential	2926307	3416.38
GLP	25650	73.20
LTMD & NRGP	407171	2318.57
HT	4827	2768.37
Water Works	23590	330.57
Public Lighting	17114	38.20
Agricultural	398472	5872.07
Total Consumers	3803131	14817.37

Feeder Mix	
Category	Nos.
EHT	92
HT	276
INDUSTRIAL	403
URBAN	354
GIDC	53
JGY	974
AG	3301
SST	471
Total Feeders	5924



UGVCL Awards

UGVCL bags total **29** Nos. of
National Awards since 2005.

UGVCL Awards



BRONZE SHIELD
EXCELLENT PERFORMANCE
IN POWER DISTRIBUTION

NATIONAL AWARD FOR
EXCELLENCE IN COST
MANAGEMENT - 2007



IEEMA POWER AWARD 2008
EXCELLENCE IN RURAL
ELECTRIFICATION

UGVCL Awards



INDIA POWER AWARDS - 2009

**ICWAI GOOD PERFORMANCE
AWARD - 2009
EXCELLENCE IN ANAGEMENT**



**3rd India Power Awards
2010**

UGVCL Awards



INDIA POWER AWARD - 2011
WOMEN IN POWER SECTOR

GOLD SHIELD
FOR EXCELLENCE
PERFORMANCE IN POWER
DISTRIBUTION 2010-11



INDIA POWER AWARD - 2012
OVERALL UTILITY
PERFORMANCE
(DISTRIBUTION) RURAL

UGVCL Awards



POWER LINE AWARDS-2021
BEST PERFORMING
STATE DISCOM

IPPAI POWER AWARDS FOR
GREENEST DISCOM - 2013



INDIA POWER AWARD - 2014
BEST OVERALL
PERFORMANCE IN PRIVATE
SECTOR & PSU

UGVCL Awards



IUKAN AWARD - 2014
INNOVATIONS AND OTHERS
IN POWER DISTRIBUTION

IPPAI POWER
AWARDS - 2015
BEST PERFORMING
DISTRIBUTION COMPANY



National Award for
Excellence in Cost
Management - 2016
PUBLIC-SERVICE
SECTOR (LARGE)

UGVCL Awards



INDIA POWER AWARD - 2016
BEST OVERALL
PERFORMANCE IN PRIVATE
SECTOR & PSU

CBIP AWARD - 2016
BEST PERFORMING POWER
DISTRIBUTION UTILITY
OF CENTRAL BOARD OF
IRRIGATION & POWER



IPPAI - AWARD 2017
BEST PERFORMING
DISTRIBUTION COMPANY

UGVCL Awards



SKOCH AWARD - 2018
AT&C LOSSES SYSTEM

ICC AWARD - 2018
UDAY PERFORMANCE
AWARD



IPPAI AWARD 2018
BEST PERFORMING
DISTRIBUTION COMPANY

UGVCL Awards



**PTC EXCELLENCE
AWARD - 2019
BEST DISCOMS**

**CBIP AWARD - 2020
BEST PERFORMING POWER
DISTRIBUTION UTILITY**



**SKOCH AWARD - 2020
FOR AT&C LOSSES AND
POWER RELIABILITY**

UGVCL Awards



8th Innovation with Impact Awards for DiSCOMS 2020
Ranked 3rd Under Category of E (Performance Improvement)

8th Innovation with Impact Awards for DiSCOMS 2020
Ranked 3rd Under Category of B (Efficient Operations)



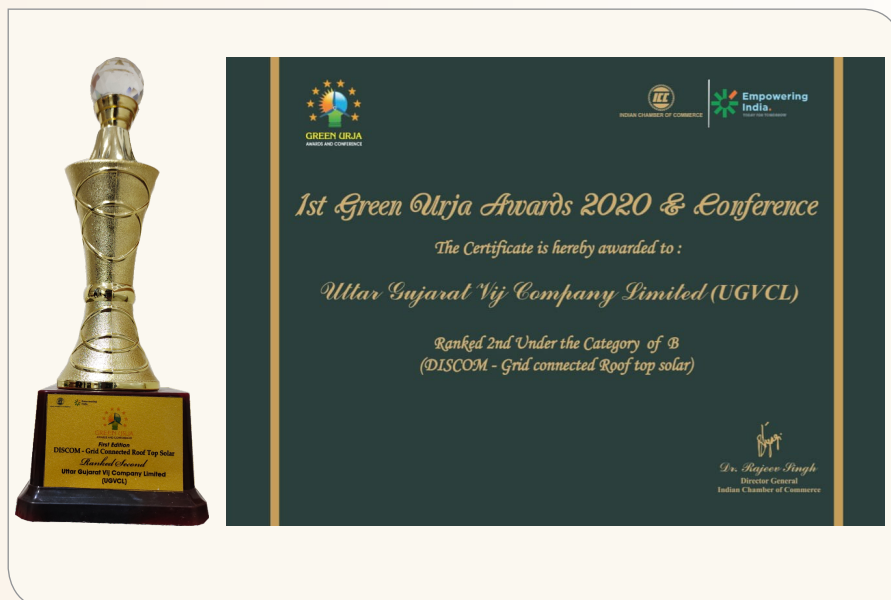
8th Innovation with Impact Awards for DiSCOMS 2020
RANKED 3RD UNDER CATEGORY OF C (QUALITY OF SERVICE & CONSUMER EMPOWERMENT)



UGVCL Awards



National Ability Awards **1st Position in Category-A (Service Industry) Under** **“Energy Conservation & Awareness Awards-2021”**



1st GREEN URJA AWARDS 2020

UGVCL RATING BY INVESTMENT INFORMATION AND CREDIT RATING AGENCY (ICRA)

Year	Rating
2013	A+
2014	A+
2015	A+
2016	A+
2017	A+
2018	A+
2019	A+
2020	A+
2021	A+ (As per Draft Report)

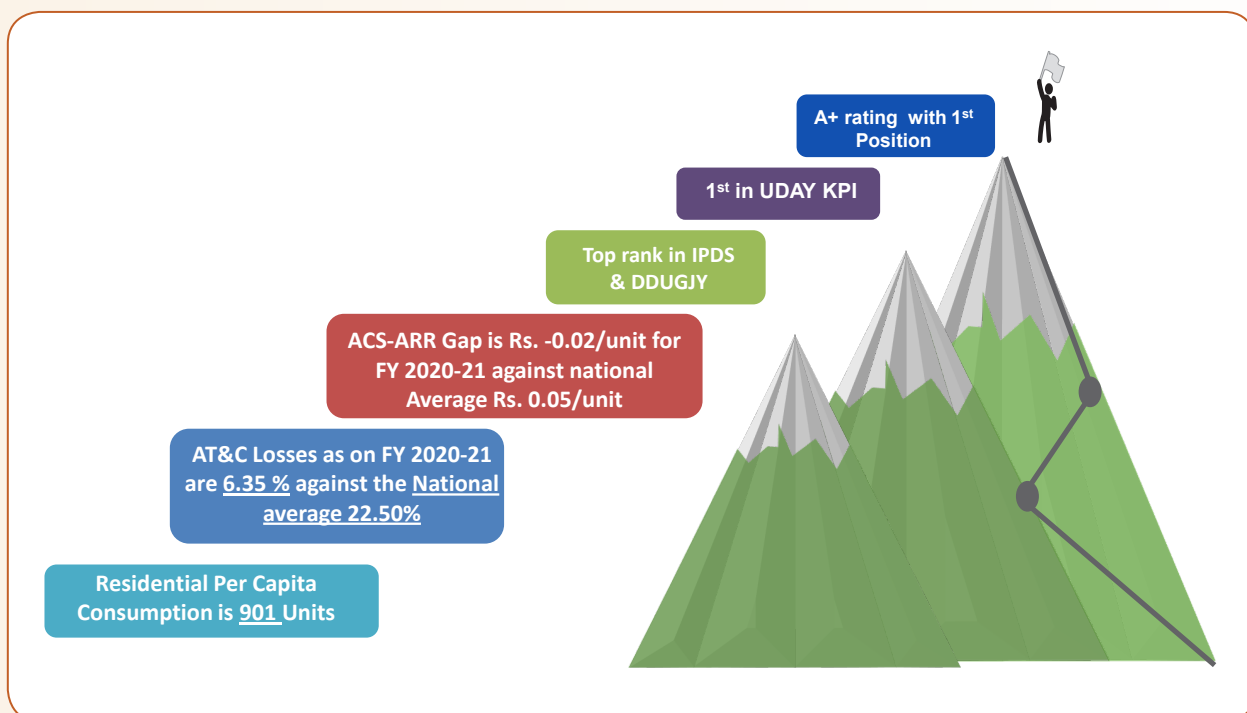
Ministry Of Power Rating (Marks out of 100)

DISCOM	2013	2014	2015	2016	2017	2018	2019	2020
UGVCL	89.9	93.6	91.2	96.3	91.1	98.1	93.30	96
DGVCL	91.6	94.8	93.7	95.9	91	98.9	96.2	91.4
MGVCL	89.8	94.8	92.3	92.3	89.5	94.4	94.7	91.6
PGVCL	80.3	81.7	82.9	78.0	80.2	84.6	80.2	84.3

Grade A+: 80 & Above marks

Grade A: 65 to 80 marks

UGVCL : The Peaks of Success



Corporate Communication Cell

Enhancing the image of the company

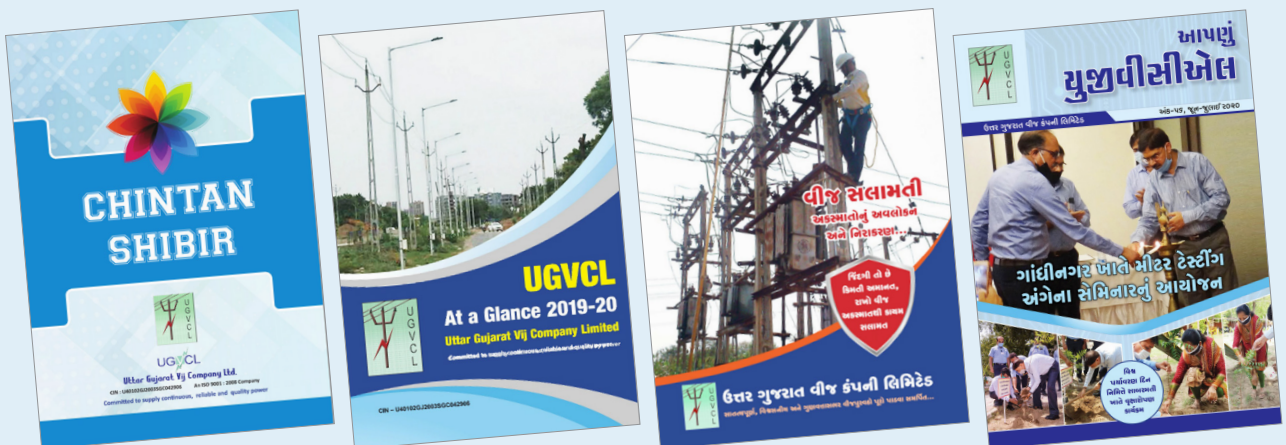
A survey, conducted by Weller Shandwick & Spencer Stuart for Global Fortune 500 (Five Hundred) companies, underlines the role and importance of Corporate Communication Cell in the field of corporate communications in the overall success and image building of the company.

The work of Corporate Communication Cell is an excellent means of conveying the work done by the Corporate Office to all the stakeholders of the company. UGVCL uses corporate communication strategy to maintain and improve its image. The responsibility of creating, maintaining or improving the image of the company rests with Corporate Communication Cell.

In Uttar Gujarat Vij Company Limited Corporate Communication Cell has been set up and is active since 2006.

Thus, the important work being done by the company for the last 15 years is being successfully compiled and communicated to the government as well as to the esteemed consumers. The Cell regularly publishes 'Aapnu UGVCL', the company's e-newsletter for more than a decade.

Last year, along with the editions of the company's regular in-house magazine, several other publications were also developed. A book on 'Chintan Shibir' was created. A booklet on "Electrical Safety: Observing Accidents and Preventing Them" was also made, which provides insights on electrical safety with the examples of accident prevention. The book "UGVCL at a Glance" contains detailed information about the operations carried out by the company during the year 2019-20. The book "Awards and Achievements"





includes important achievements in addition to the glorious historical information of the awards received by the company since its inception.

Documentaries have also been produced for various activities of the company during the year. A documentary film promoting “Kisan Suryodaya Yojana” has been developed. ‘Surya Gujarat’ is a documentary film that promotes solar rooftop power generation. In addition, an attempt has

during day time.

The company’s operations have been boosted by the congratulatory messages from Hon’ble Chief Minister, Hon’ble Minister of Energy and Hon’ble Minister of State for Energy for a “Aapnu UGVCL” magazine.

Throughout the year, various hoardings have been erected in North Gujarat showing information about the “Kisan Suryodaya Yojana” as well as “Surya Gujarat”. Promotion through Gujarat



been made to convey the message of power safety to consumers through an another documentary film.

Attempts have been made to create awareness among the consumers through 32 public programs for the promotion and dissemination of “Kisan Suryodaya Yojana” i.e. the scheme of providing electricity to the farmers

State Road Transport Corporation buses has also been undertaken to share information about both the schemes and make the consumers aware of the same.

Next year too, the company will make concentrated efforts to communicate with all the stakeholders and contribute towards the development of the state and nation.

Technical Section

For any power distribution company, its technical department plays a very important role. The technical department has to coordinate all the departments to enhance the performance of the company. Proper disposal of direct or indirect consumer complaints has to be done and advance planning is also needed to prevent such complaints in future.

To ensure the timely availability of valuable transformers and other essential materials, the company has to balance the demand and its supply. In order to

and its reports are prepared and sent to the competent authority for approval. The core business of the company is to provide new electric connections and to provide an uninterrupted power supply to the consumers to maintain continuity of the strong power distribution system. It is also imperative to achieve the targets as per the policies and norms announced by Gujarat Electricity Regulatory Commission.

In order to meet the gradual increase in the number of consumers and to properly assess the workload of the sub-division

office, the requirements of the new division offices and sub-division offices are taken into consideration and the demands are then taken up with the competent authority for approval. The Consumer Facilitation Center is properly managed and maintained to deal with the complaints of the company's esteemed consumers. To provide quality power supply to the consumers, new transformers, new feeders, new substations have to be approved from time to time and put



meet the future demand for power supply, it is necessary to plan in advance and continuously monitor and observe the work being done under various schemes of the Central Government and the State Government.

The monthly, as well as annual, performance of the company, is reviewed

into operation in coordination with Gujarat Energy Transmission Corporation Limited.

Thus, the technical section acts like a brain for Uttar Gujarat Vij Company Limited. The company has established itself as one of the leading power distribution companies in India with a commitment to maintaining its position forever.

Jyoti Gram Yojna (JGY) - 2005

(A Game Changer in Supply Management)

Before JGY

- 8-14 Hours of 3-Phase Power Supply
- 10-12 Hours of Single Phase Power supply
- 3-4 Hours of No Power Supply
- Higher Transformer Failure Rate, T&D Losses & Interruption

After JGY

- Implemented from 2005
- 24 Hours 3 Phase supply to JGY Feeders
- Min. 8 Hours 3 Phase Continuous Supply to AG Dom. Feeders
- 1 Phase Power Supply in the remaining Hours on AG Dom. Feeders
- Reduction in Transformer Failure Rate, T&D Losses & Interruption

Benefits of JGY Scheme

- Enabled flexible load management
- Better quality and reliability of power supply
- Reduction in Transformer/ system failure
- Speedy restoration of power supply at the time of calamity
- No Load shedding - 24x7, 3-phase Power supply available to villages
- Students encouraged to use computers for education
- Provision of better health services & infrastructure
- Reduction in migration from Rural to Urban areas
- Development of Small Scale & cottage Industries in Rural areas

Benefits of JGY Scheme



24x7 Power Availability promotes Entertainment through television

24x7 Power makes it possible to use Modern Medical Equipment in villages



24x7 Power empowers the villagers with Mobile Communication thereby making their life easy and more manageable

24x7 Power helps villagers to avail easy Repair & Maintenance of their machineries / vehicles through facilities of welding/ lathe in the village.



Jyoti Gram Yojna (JGY) - 2005



24×7 Power enables the villagers to setup local dairy and in house milk testing.

24×7 Power has made it possible for the villagers to have the facilities of Copier machines making it easy for their important documents to be processed further.



Special Design Transformer (SDT)



Uttar Gujarat Vij Company Limited
Mehsana

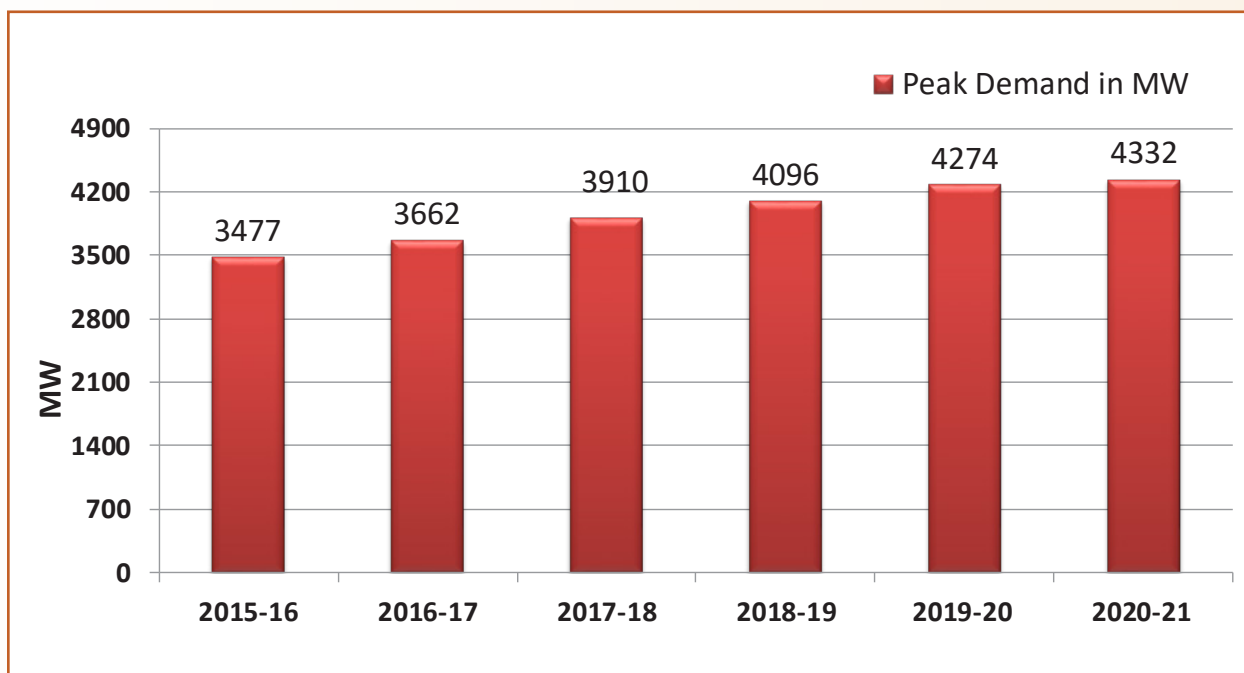
The Incarnation of SDT

- The UGVCL engineers, designed a specially designed transformer which could cater the 1Ø supply with absolute control.
- The entire state is enjoying the JYOTI GRAM Yojna with catering the power supply to the deep rural areas.

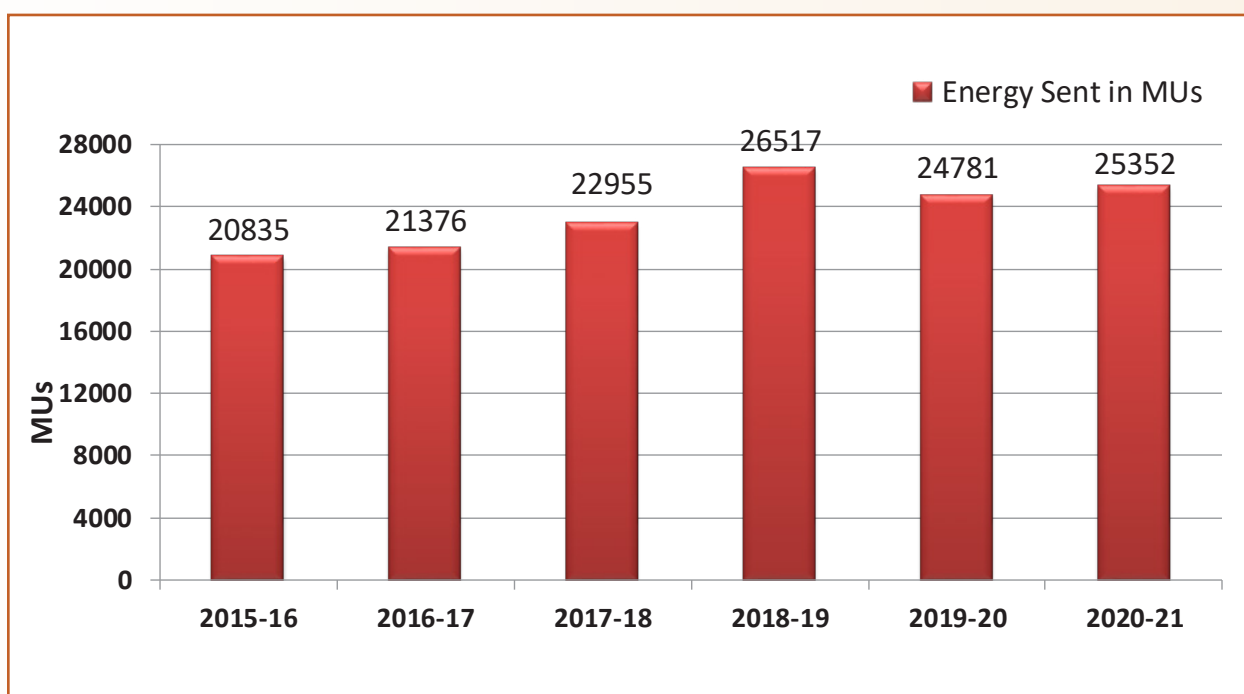
Measure Taken

- The unique design of windings in the SDT provides
 - full voltage on one phase i.e. 230 volt
 - Very low voltage on other two phases
- Only one full phase voltage and two very low phase voltages makes the use of Phase-Splitter (TETA) impossible.

ALDC : Peak Demand in MW



ALDC: Energy Sent

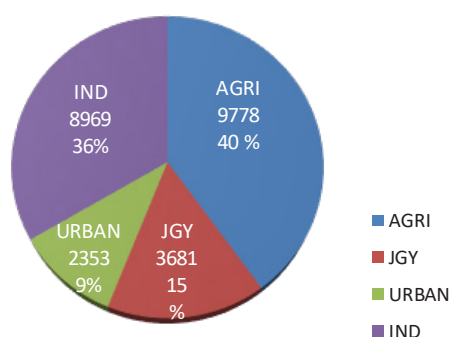


Category Wise Sent Energy in MUS

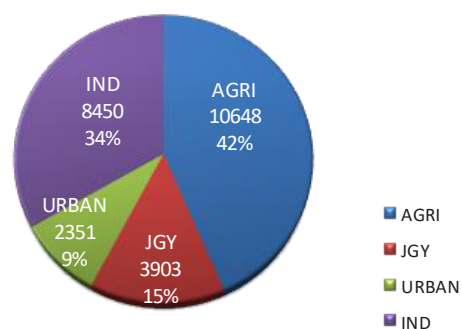
Year	2019-20				
Category	AGRI	JGY	URBAN	IND	TOTAL
Units	9778	3681	2353	8969	24781

Year	2020-21				
Category	AGRI	JGY	URBAN	IND	TOTAL
Units	10648	3903	2351	8450	25352

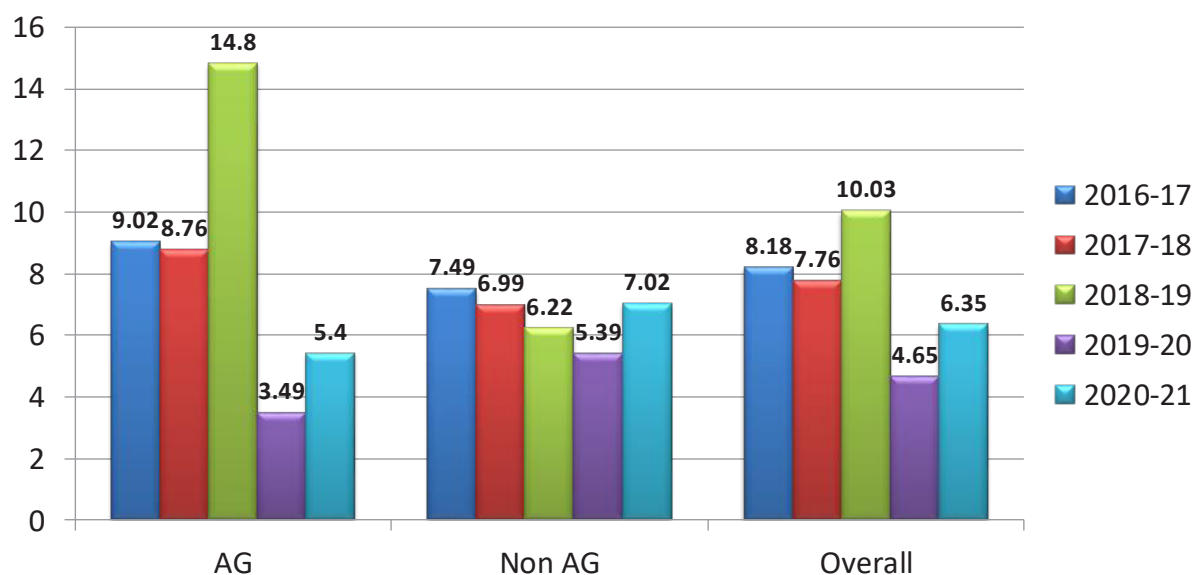
Category Wise Sent MUs – 2019-20



Category Wise Sent MUs - 2020-21



Distribution Losses in %



Reason for Lower Losses...

- Creation of 107 New Sub station since Last Seven Years.
- Creation of 1316 New Feeders since Last Four years.
- Providing of XLPE and AB Cable.
- Installation of Static Meters – 100 %.
- Network Analysis and Energy Audit
- Vigorous Installation Checking activity.
- Transformer Load Balancing activity.
- Pilfer proof installation

Gujarat: Overall Distribution Losses in %

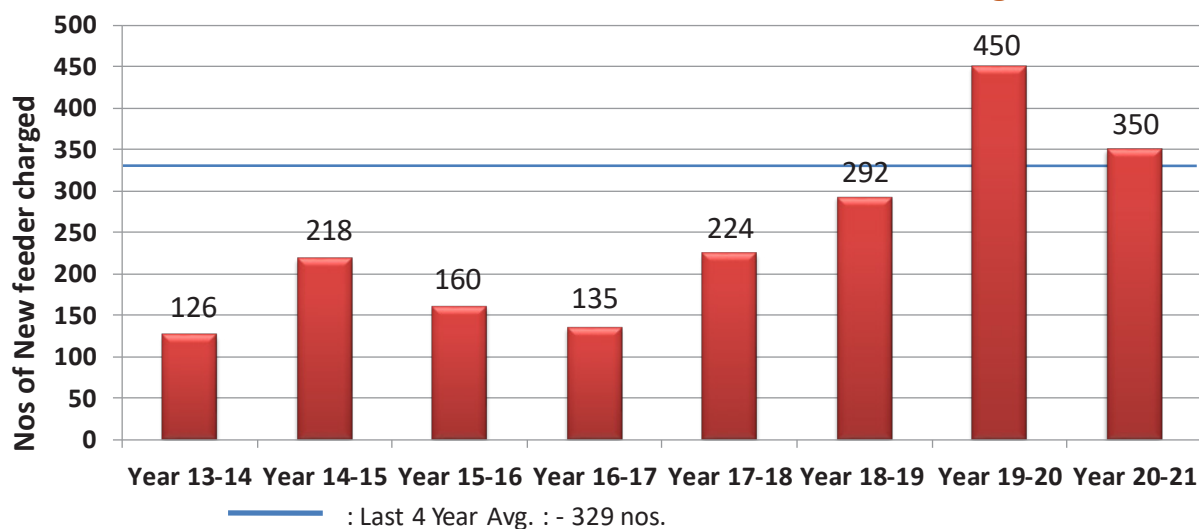
DISCOMs	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
UGVCL	10.12	14.07	6.04	9.87	11.04	8.18	7.76	10.03	4.65	6.35
DGVCL	12.78	11.95	9.97	9.33	9.07	8.23	7.70	7.34	5.22	8.79
MGVCL	13.13	12.94	10.78	11.80	11.68	10.08	9.60	9.12	8.34	9.96
PGVCL	26.54	27.63	20.55	22.77	22.58	19.06	17.89	18.95	14.71	16.61
GUVNL	17.29	18.55	12.86	14.64	14.85	12.42	11.72	12.59	8.86	11.16

Gujarat: Non-Ag Distribution Losses in %

DISCOMs	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
UGVCL	9.28	8.75	8.58	8.08	7.74	7.49	6.99	6.22	5.39	7.02
DGVCL	13.00	11.75	10.35	9.06	8.68	7.96	7.46	6.66	4.98	8.32
MGVCL	12.82	12.47	11.47	11.71	11.28	10.31	9.86	8.97	8.45	10.31
PGVCL	20.93	19.64	17.10	15.77	14.66	13.07	12.14	11.15	10.32	12.89
GUVNL	15.00	13.95	12.35	11.45	10.86	9.94	9.32	8.45	7.33	9.92

Feeder Bifurcation Progress

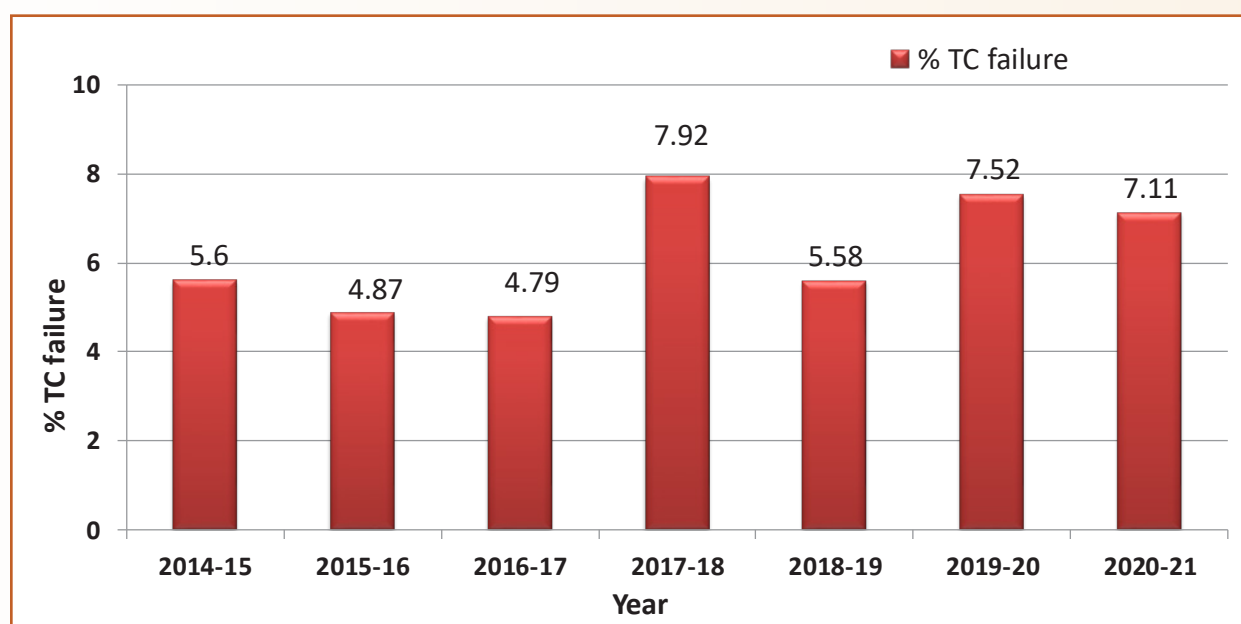
During last 4 year we are intensified the work of feeder bifurcation and achieved 1316 nos of feeder bifurcation which are all time highest



New 66 KV Sub Satation commissioned during FY 2020-21

Sr. No.	Circle	Name of Sub Station	District	Taluka	Dt. of T.C / Commi.	TR. Circle
1	SBT	66KV Paladi Kankaj	Ahmedabad	Dascroi	11.07.2020	Nadiad
2	HMT	66KV Didhiya	Sabarkantha	K'bhrhma	18.08.2020	Himatnagar
3	HMT	66KV Vankaner	Aravalli	Bhiloda	20.09.2020	Himatnagar
4	HMT	66KV Panchal	Aravalli	Meghraj	21.09.2020	Himatnagar
5	MSN	66KV Bhagapura	Ahmedabad	Detroj	01.10.2020	Mehsana
6	HMT	66KV Derol	Sabarkantha	Himatnagar	26.11.2020	Himatnagar
7	PLN	66KV Rampura(Dama)	Banaskantha	Deesa	29.12.2020	Palanpur
8	HMT	66KV Gudel(Agiya)	Sabarkantha	K'bhrhma	31.12.2020	Himatnagar
9	HMT	66KV Kuski	Aravalli	Bhiloda	31.12.2020	Himatnagar
10	SBT	66KV Ukaradi	Ahmedabad	Mandal	11.02.2021	Mehsana

% Transformer Failure



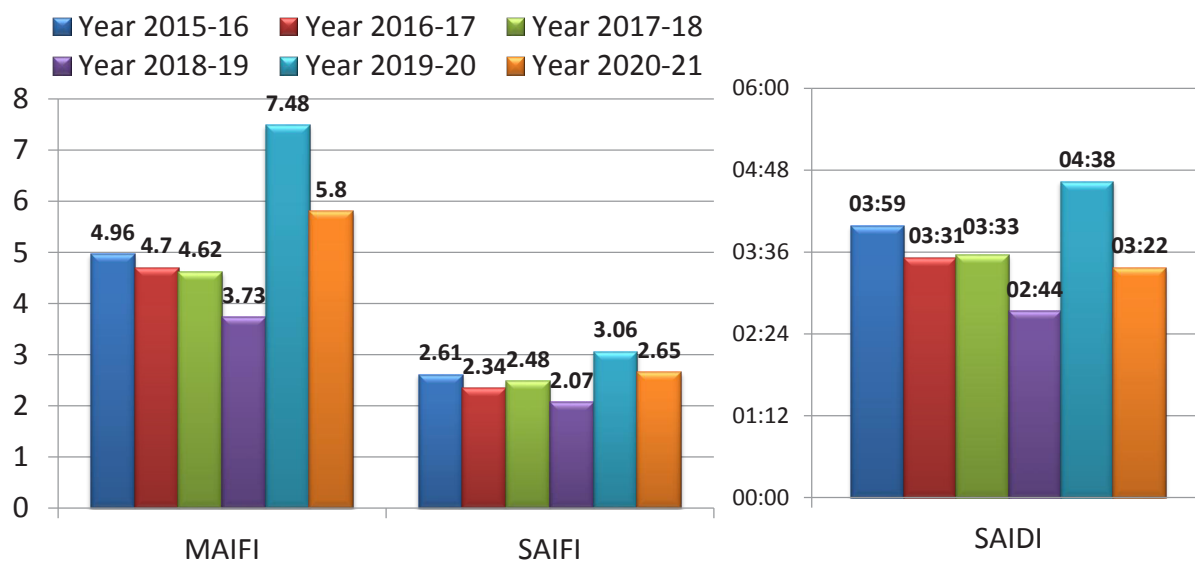
GUJARAT : % Transformer Failure (Year 2019-20 & 2020-21)

DISCOM	% Transformer Failure (FY 2019-20)			% Transformer Failure (FY 2020-21)		
	Population	Nos of Failed	% Failure	Population	Nos of Failed	% Failure
DGVCL	177497	9363	5.28	190624	10770	5.65
MGVCL	153435	9555	6.23	161749	10151	6.28
PGVCL	950673	108128	11.37	1005097	111768	11.12
UGVCL	315431	23718	7.52	340872	24248	7.11

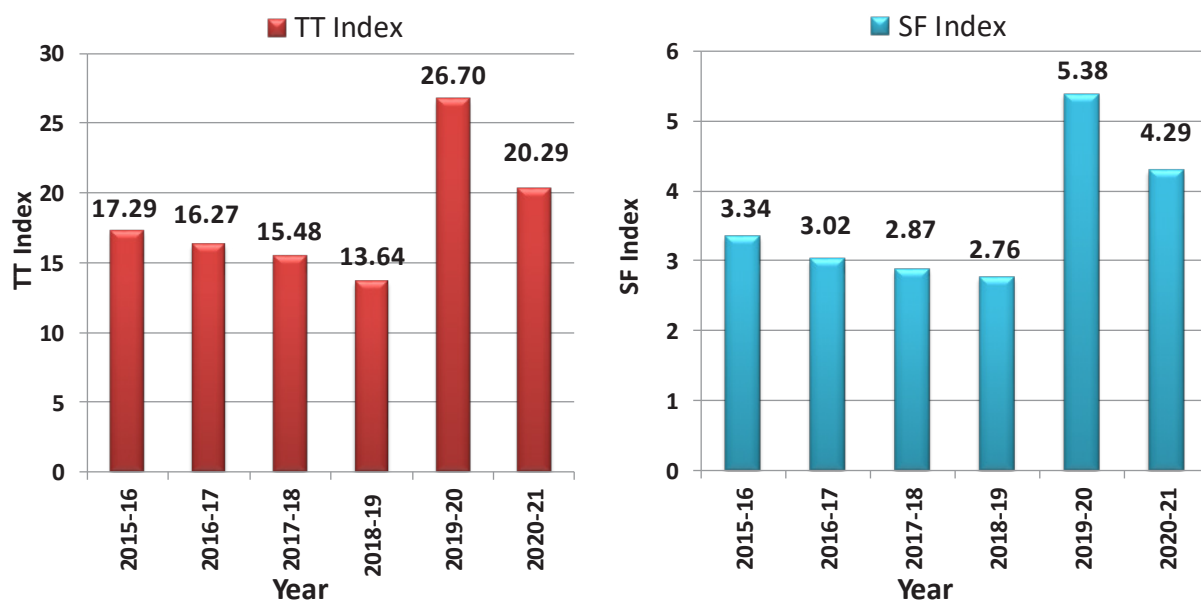
Reason for Lower Transformer Failure

- Quality Transformer Maintenance
- Added New Transformers in Existing System
- Vigorously Installation Checking to curb the overloading
- Various TMS (Transformer Maintenance Squad) activity carried out like.
 - Proving of Fuse Element.
 - Proving of HT/LT Protection.
 - Maintenance of LT Line.
 - Providing of Lighting Arrester / Breather
 - Load Balancing
 - Topping of Oil

Power Supply Reliability Indices



Year to Year TT/SF Index



GUJARAT : Power Supply Reliability Indices (Year 2019-20 & 2020-21)

DISCOM	Achievement (FY 2019-20)			Achievement (FY 2020-21)		
	SAIFI	SAIDI	MAIFI	SAIFI	SAIDI	MAIFI
DGVCL	6.34	8:35	12.11	5.08	6:32	10.72
MGVCL	4.03	5:04	12.20	3.95	5:41	10.98
PGVCL	6.37	10:40	8.14	8.01	12:55	11.16
UGVCL	3.06	4:38	7.48	2.65	3:22	5.80

Slab Analysis of Total TT for Year 2020-21

Sr. No.	Feeder category	Total Feeders	Zero TT	1 to 50	51 to 100	101 to 200	Above 200
1	HT Express	267	32	229	6	0	0
2	Ind	400	14	336	44	5	1
3	GIDC	52	1	46	5	0	0
4	Urban	355	19	242	76	18	0
5	JGY	968	1	328	415	203	21
6	Agri	3276	18	1950	964	260	38
Total		5318	85	3131	1510	532	60

Slab Analysis of Total SF for Year 2020-21

Sr. No.	Feeder category	Total Feeders	Zero SF	1 to 15	16 to 35	Above 35
1	HT Express	267	82	181	4	0
2	Ind	400	54	323	22	1
3	GIDC	52	5	42	3	1
4	Urban	355	48	279	26	2
5	JGY	968	45	710	197	16
6	Agri	3276	116	2175	846	139
Total		5318	350	2710	1099	159

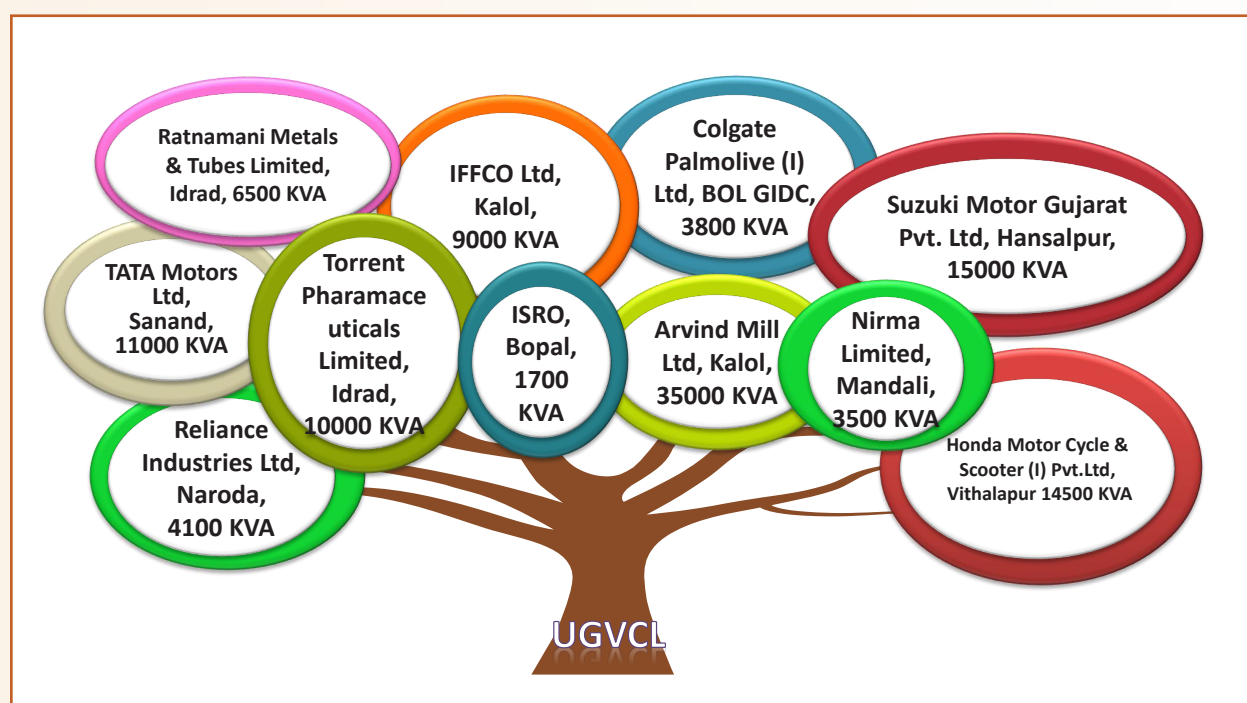
Why Power Reliability is better during last five year

- Arranging Mass Program for Maintenance i.e. Crew management
- Use automation i.e. RMUs
- Early Restoration of Power supply
- Monitoring of Daily, Weekly & Monthly Report
- Implementation of Govt. Scheme. (SCADA, Smart Meter, SKJY, DISS etc)
- Effective utilization of TMS gang
- Creation of 107 New Sub station since last seven years & 1316 New feeder since Last four years.
- Providing of XLPE and AB Cable.

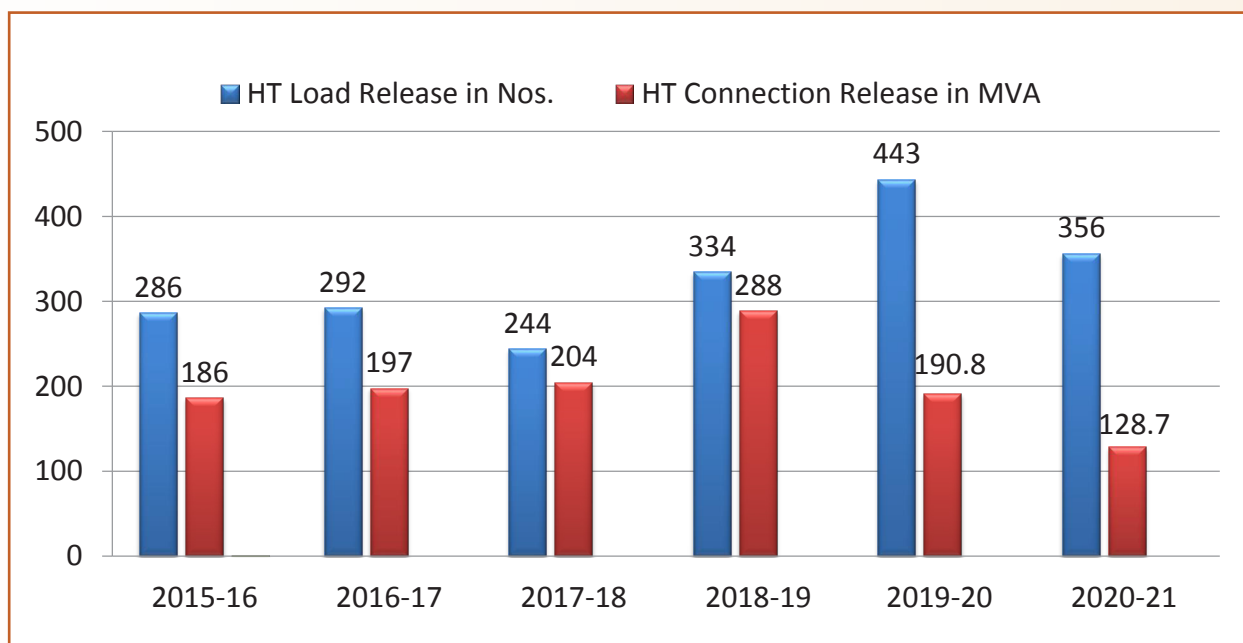
Status of HT/EHT Consumers

Sr. No.	Year	HT/EHT Connections in Nos	HT/EHT Load in MVA	Net Annual Assessment of HT Connection in Crore
1	2008-09	1751	999.94	1264.49
2	2015-16	3283	2014.73	4598.8
3	2016-17	3575	2211.95	4997.88
4	2017-18	3819	2415.92	5699.77
5	2018-19	4153	2703.07	6376.04
6	2019-20	4486	2924.58	7270.17
7	2020-21	4827	3082.286	6669.58
(LT+HT) Connections of UGVCL (2020-21)		3808322	18400.05	11428.58
% Weight age of HT connection (2020-21)		0.13%	16.75%	58.36%

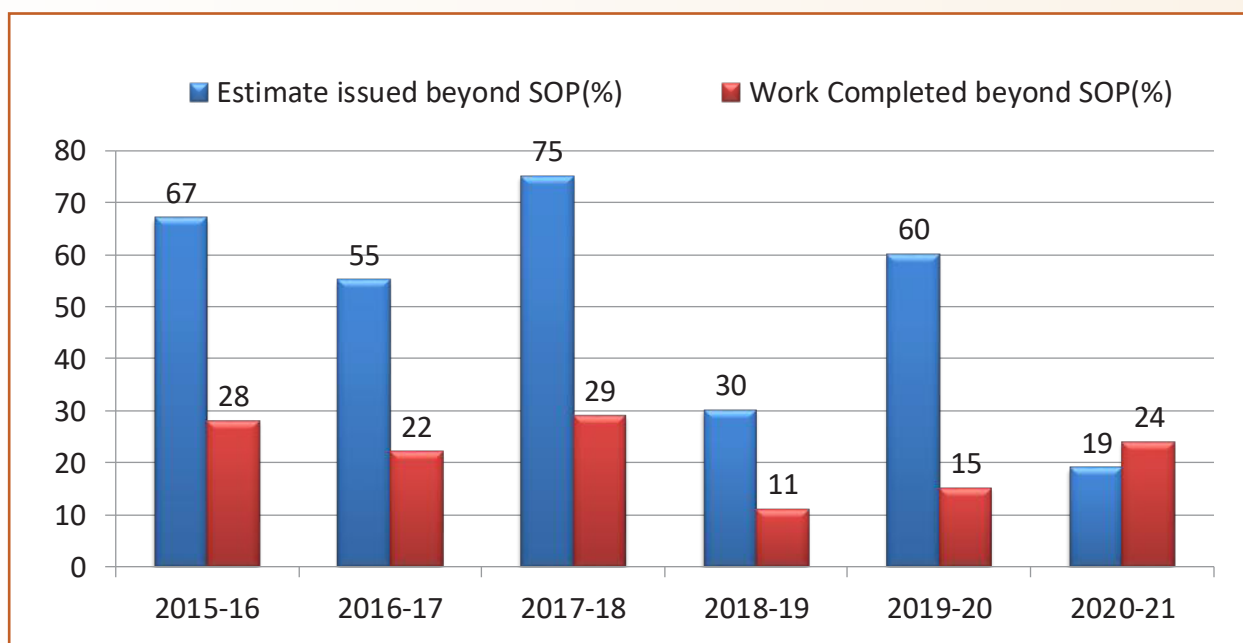
KEY HT & EHT Consumers



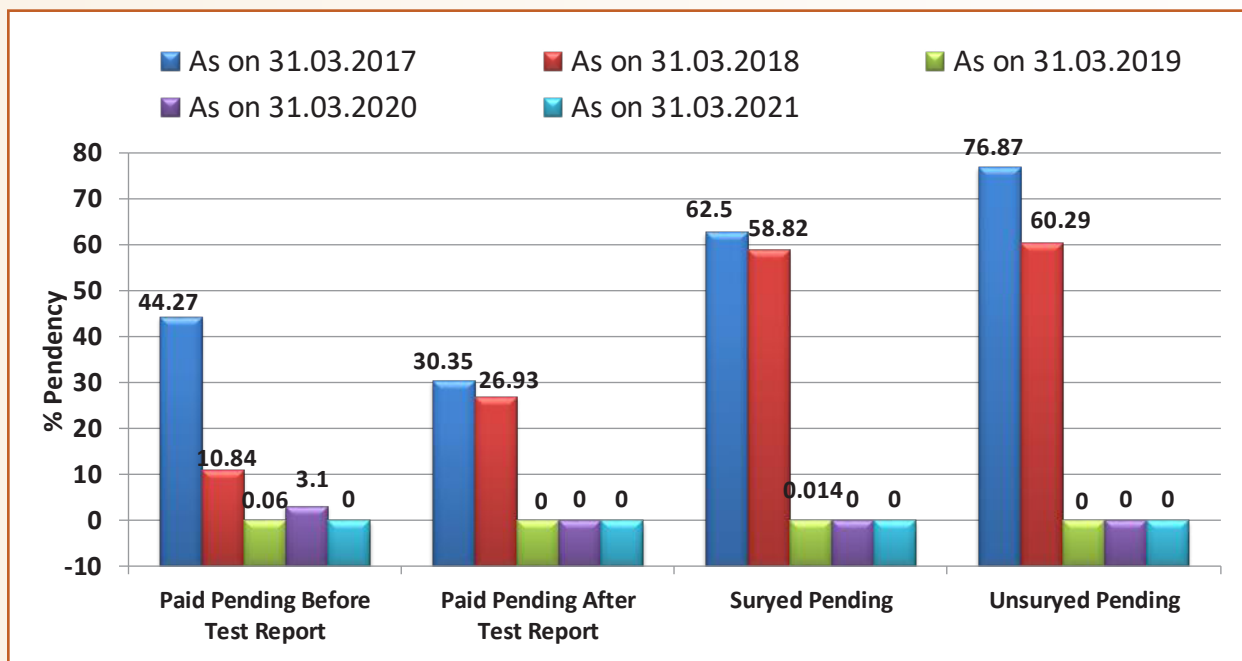
New HT Connection Added in Nos & KVA (Year 2013-14 to 2020-21)



HT Connection SOP (Year 2013-14 to 2020-21)



% LT Pendency Beyond SOP

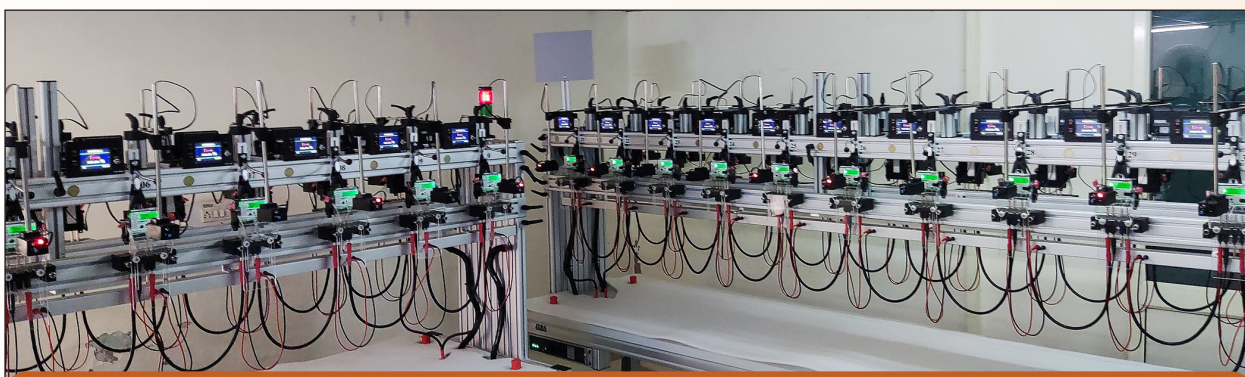


% LT Pendency

During the year 2020-21, UGVCL has cleared more than 98 % of application which are all time highest. We make 104 nos of Subdivision having ZERO Pendency i.e No register pending & paid pending application

Sr No	Circle	Total Pending Applications as on Mar'20	Released during Year 2020-21	TMN as on Mar'21	Total Cleared Applications	Total Applications	Cleared in Percentage
1	2	3	4	5	6=4+5	7=3+6	8=6/7*100
1	HMT	196	12981	965	13946	14142	98.61
2	MSN	271	19441	595	20036	20307	98.67
3	PLN	855	26621	1031	27652	28507	97.00
4	SBT	645	46019	5337	51356	52001	98.76
5	UGVCL	1967	105062	7928	112990	114957	98.29

NABL, Sabarmati



CT-PT Testing and Calibration Work Carried Out AT- NABL SABARMATI

Sr. No.	Year	Total Testing Nos	Testing fees, amount in Lacs	Test Quantity Per Month Nos	Testing fees , amount in Per Month in Lacs
1	October 2010 TO March 2017	2637	257.94	34	3.31
2	2017-2018	1294	115.65	108	9.64
3	2018-19	906	91.63	76	7.64
4	2019-20	1086	81.32	91	6.78
5	2020-21	915	103.58	76	8.63
	Total since establishment	6838	650.13		

Meter Testing and Calibration Work Carried Out AT- NABL SABARMATI

Sr. No	Year	Total Testing And Calibration		Testing fees , amount in Lacs		Testing fees in Lacs, <u>Actual</u> received by Invoice Total Yearly	Testing fees in Lacs, <u>Actual</u> received by Invoice Per Month
		Testing	Calibration	Testing Fees/ Month	Calibration Fees/Month		
1	2006-07	5994	0	163.90	0.00		
2	2007-08	528	66	24.13	7.86	7.42	0.62
3	2008-09	1590	133	44.57	10.93	1.92	0.16
4	2009-10	1120	151	35.66	12.53	2.82	0.24
5	2010-11	1047	182	24.36	9.64	1.49	0.12
6	2011-12	1278	184	37.15	8.85	9.87	0.82
7	2012-13	794	196	38.99	12.63	21.05	1.75
8	2013-14	978	271	66.68	16.97	21.80	1.82
9	2014-15	1588	440	103.64	28.14	12.49	1.04
10	2015-16	1263	282	66.84	17.42	22.74	1.90
11	2016-17	1418	188	94.82	9.72	21.53	1.79
12	2017-18	3728	243	157.81	12.50	29.53	2.46
13	2018-19	9493	209	260.54	10.96	33.91	2.83
14	2019-20	8771	246	238.75	13.03	34.03	2.84
15	2020-21	5200	193	267.12	51.61	42.70	3.56
	Total since establishment	44790	2984	1624.94	222.77	263.30	21.94

Government & Individual references

Current year total 862 nos of various references / representation / complaints are received and All are complied within time limit by corporate office (cut-off date 25.03.21)

Received from	SBT		MSN		PLN	
	Received	Comply	Received	Comply	Received	Comply
PMO	88	88	31	31	24	24
CMO	2	2	1	1	1	1
Minister	6	6	2	2	2	2
MP/MLA	1	1	2	2	0	0
EPD	18	18	8	8	3	3
Liaison	33	33	4	4	15	15
GUVNL	10	10	14	14	12	12
GERC	4	4	0	0	1	1
GVC	0	0	1	1	1	1
MD Cell	13	13	9	9	10	10
General	158	158	101	101	88	88
Total	333	333	173	173	157	157

Received from	HMT		R&C		Total	
	Received	Comply	Received	Comply	Received	Comply
PMO	11	11	8	8	162	162
CMO	0	0	2	2	6	6
Minister	4	4	0	0	14	14
MP/MLA	0	0	1	1	4	4
EPD	4	4	11	11	44	44
Liaison	15	15	9	9	75	75
GUVNL	8	8	11	11	55	55
GERC	0	0	0	0	5	5
GVC	1	1	0	0	3	3
MD Cell	10	10	0	0	42	42
General	105	105	0	0	452	452
Total	158	158	42	42	862	862

Geo Urja Progress Report of UGVCL as on 31.03.2021

Particulars		UGVCL
Feeders other than Ag (No.)	Total (as per Geo Urja)	2,494
	Mapped	2,494
	% map.	100.00%
Feeders - Ag (No.)	Total (as per Geo Urja)	3,256
	Mapped	2,946
	% map.	90.48%
HT-Line(KM)	Total (As per MIS Mar.21)	112033
	Mapped	88,165
	% map.	78.70%
LT-Line(KM)	Total (As per MIS Mar.21)	75711
	Mapped	3429
	% map.	4.53%
Transformers	Total (As per MIS Mar.21)	3,40,872
	Mapped	2,71,981
	% map.	79.79%
HT-CONSUMERS	Total (As per MIS Mar.21)	4,835
	Mapped	4,512
	% map.	93.32%
LT-CONSUMERS	Total (As per MIS Mar.21)	37,98,303
	Mapped	1,98,887
	% map.	5.24%

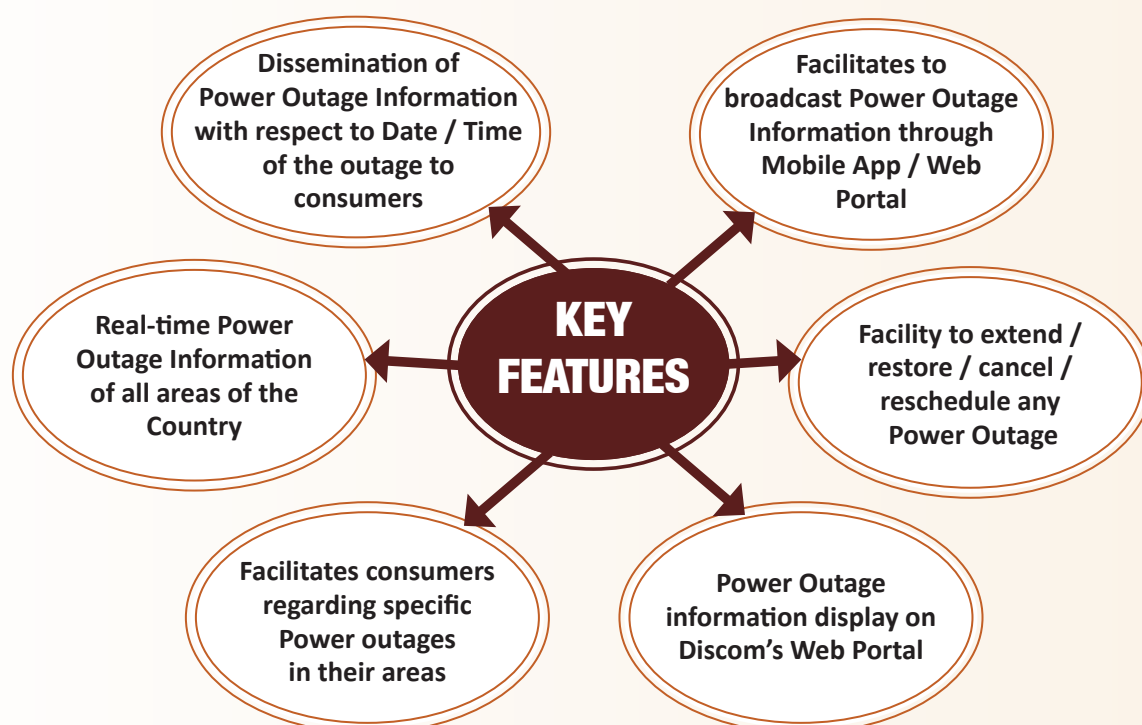
UGVCL : Centralized Consumer-Care Centre (CCC)



UGVCL:CCC MIS Report (Year- wise)

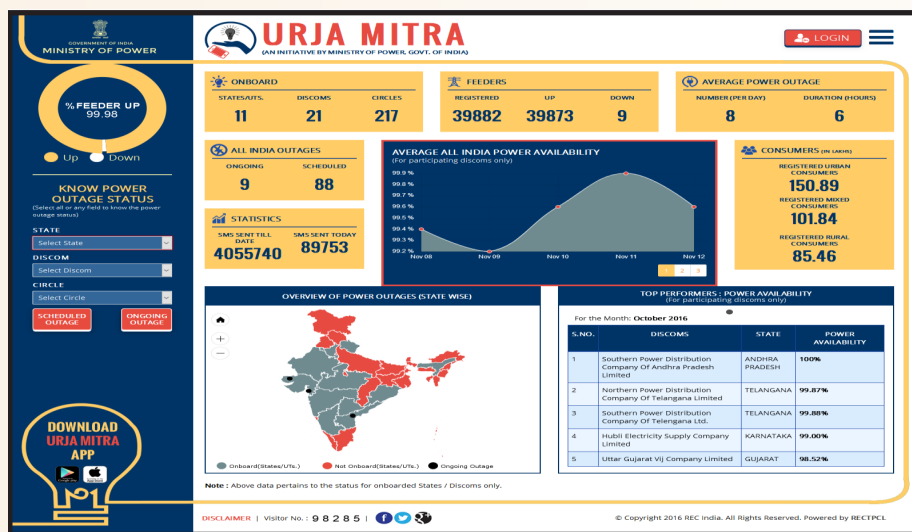
Month	Total Complaint			0 to 1 Hr		1 to 5 Hr		5 to 24 Hr		More than 24 Hr	
	Received	Closed	Cancel	No.	%	No.	%	No.	%	No.	%
COMPLAINT LOGGED BY CCC (R&C Office) - AGENTS											
Yr 17-18	893	887	6	153	17.25	108	12.18	123	13.87	503	56.71
Yr 18-19	12151	11933	218	3538	29.65	3113	26.09	3621	30.34	1661	13.92
Yr 19-20	22163	22013	150	6362	28.90	10963	49.80	4612	20.95	76	0.35
Yr 20-21	26741	26727	14	10373	38.81	11113	41.58	4661	17.44	580	2.17
COMPLAINT LOGGED BY SDN Office - AGENT LOGIN											
Yr 17-18	0	0	0	0	0.00	0	0.00	0	0.00	0	0.00
Yr 18-19	108654	108534	120	72290	66.61	28496	26.26	7720	7.11	28	0.03
Yr 19-20	228279	228134	145	152269	66.75	46922	20.57	28853	12.65	90	0.04
Yr 20-21	403380	403049	331	290525	72.08	73696	18.28	33937	8.42	4891	1.21
OVER ALL											
Yr 17-18	893	887	6	153	17.25	108	12.18	123	13.87	503	56.71
Yr 18-19	120805	120467	338	75828	62.95	31609	26.24	11341	9.41	1689	1.40
Yr 19-20	250442	250147	295	158631	63.42	57885	23.14	33465	13.38	166	0.07
Yr 20-21	430121	429776	345	300898	70.01	84809	19.73	38598	8.98	5471	1.27

Outage Management System of “Urja Mitra”

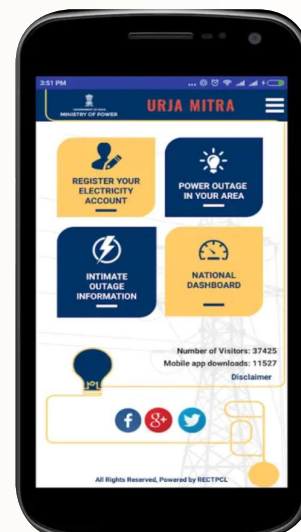


Urja-Mitra Web Portal and Mobile App

Web Portal



Mobile App



Scheduled Outages in Urja Mitra Year 2020-21

Sr. No.	Name of Circle	Nos. of Scheduled outages arranged in a Year	Nos. of Scheduled outages Executed	Nos. of Scheduled outages Uploaded in Urja Mitra	% Achievement
1	Mehsana	2332	2332	2332	100
2	Sabarmati	2606	2606	2606	100
3	Palanpur	3751	3751	3458	92.19
4	Himatnagar	2764	2764	2764	100
	UGVCL	11453	11453	11160	97.44

Unscheduled Outages in Urja Mitra Year 2020-21

Sr. No.	Name of Circle	Nos. of Unscheduled outages in a Year	Nos. of Unscheduled outages Executed	Nos. of Unscheduled outages Uploaded in Urja Mitra	% Achievement
1	Mehsana	12028	12028	1907	15.85
2	Sabarmati	18540	18540	1483	8.00
3	Palanpur	30414	30414	2401	7.89
4	Himatnagar	14060	14060	4562	32.45
	UGVCL	75042	75042	10353	13.80

UJALA : Unnat Jyoti by Affordable LED for All

- Government of Gujarat had launched UJALA-GUJARAT (Unnat Jyoti by Affordable LED for All) on dated 26.05.16.
- **Energy saving activity in association with EESL (Energy Efficiency Services Limited) by cash or in installment (EMI) option**
- **First phase-** Launching dt.26-05-2016
Domestic Efficient Lighting Programme (DELP) :
9 Watt LED bulbs i.e. saving of 40 watt per Bulb
Cash Rate-Rs.70 , EMI rate Rs. 75 - Five bi monthly bill Rs. 15,
Total LEDs Sold up to 31.03.21 :- **8031636**
- **Second Phase-** Launching dt.26-01-2017
 - (I) Energy Efficient Tube Light Programme (EETP) :
20 Watt LED Tube i.e. saving of 20 watt per Tube
Cash Rate-Rs.220, EMI rate Rs. 240 – Six bi monthly bill Rs .40
Total Tube light Sold up to 31.03.21 :- **270054**
 - (II) Programme for Acceleration of Energy Saving Fans (PAVAN) :
50 Watt , 5-Star Rated EE Fans i.e. saving 30 watt per Fan-Cash Rate-Rs.1110
EMI rate Rs. 1400 – Eleven bi monthly bill Rs. 120 & Last Rs. 80, Total Fan Sold up to 31.03.21 :-**166129**

Remark: From January-2018 Installment option-not given

Safety Practice Adopted

For General Public

- Distribution of safety Pamphlet/ Banner
- Wide Publicity on News Paper during Kite Festival & Navratri across the company through Newspapers, Channel display, Pamphlet distribution etc
- Safety Announcement by Rixa pheri in urban area
- Celebration of Safety week during First week of June on every year.
- Removal of Hoarding / Channel wires/iron wires from Network,
- Verifying unauthorized construction below / near network and issued notice thereof,
- Providing of Consumer Earthing

For Line staff/Employee

- Regular interval Line staff meetings at SDn /Dn level about usage of safety tools and adopting safe work practice
- Implementation of safety measures for Prevention of accidents & imposing penalty upon the defaulters
- Higher Officer Visit of Line staff work
- Various key activities
 - CD of safety is being shown during safety week
 - Cross boundary Providing and Maintenance,
 - Removal of HT/HT & HT/LT line crossing,
 - Providing of LT Line Spacer
 - Reactivation of Network Earthing
 - Providing of Fencing

Details of Accident

Details	No. of accidents in Year 2019-20					Total	No. of accidents in Year 2020-21					Total
	Dept.		Outsider		Animal		Dept.		Outsider		Animal	
	FH	NFH	FH	NFH			FH	NFH	FH	NFH		
Total	3	12	105	33	113	266	7	26	95	19	69	216
Dist. Network	3	12	48	30	111	204	7	26	51	18	66	168
Pvt. Premises	0	0	57	3	2	62	0	0	44	1	3	48
FH--Fatal Human, NFH--Non-fatal Human												

Compensation

Human

- Initial Assistance of Rs 50000/ is being paid for outsider Fatal human accident in network
- Final compensation for outsider human- Rs 4 lakhs minimum or as per Bai Nanda case formula (If fault or negligence on part of victim shall not be eligible)

Animal

- In case of Animal accident initially 50% relief of compensation amount
- Animal final compensation is being paid after receipt of CEI report (if in network)
- Amount of Animal compensation (In Rs)
 - Bullock- 25000/-
 - She Cow - 30000/- , He Cow – 7500/-
 - She Buffalo – 30000/-, He Buffalo – 16000/-
 - Camel -25000/-
 - Goat/ Sheep – 3000/-

Rural Electrification



After the unbundling of erstwhile Gujarat Electricity Board, the Rural Electrification Department functioning with the establishment of Uttar Gujarat Vij Company Limited is mainly carrying out agriculture, slum scheme, tribal electrification. Work is being done to achieve the targets of various schemes implemented by the Government.

The disposal of pending petitions, before the lifting of the Dark Zone sanctions in 2014, has been implemented on a war-footing basis. The targets given by the Government to Gujarat Urja Vikas Nigam Limited have been achieved 100% by Uttar Gujarat Vij Company Limited in its areas of operation.

During the year 2020-21, 100% targets have been achieved for all government schemes like Tribal Area Sub Plan Scheme, Normal (SPA) Scheme, Dark Zone Scheme, Schedule Cast Sub Plan, Tatkal Scheme, Kutir Jyoti Scheme, Zupadpatti Scheme, Schedule Caste Sub Plan, High Voltage Distribution System Scheme, Sagarkhedu (SSVY), Sardar Krushi Jyoti Yojana, Distribution Infrastructure Shifting Scheme (DISS), and Kisan Suryoday Yojana.

The targets given by the Government to Gujarat Urja Vikas Nigam Limited for Uttar Gujarat Vij Company Limited for the coming year are being implemented at a proper pace and a commitment has been made to achieve 100% targets in the next year as well.

Norms of GOG Agriculture Well Electrification

TASP : Tribal Area Sub-plan Scheme

- Tribal Area
- 100% grant provided by state Government for HT/LT lines and Transformer Centres
- Applicant has to pay only energy deposit charges only.
- In year 2020-21 , 4114 Nos.of well is electrified against target of 4090 nos.
- 100.6 % Achievement

Normal (SPA) Scheme

- Non Tribal Area and Non Dark Zone Area.
- Priority of registration maintained at sub division level and as per the annual program by GOG
- Service connection as well as Energy deposit is to be recovered from applicant.
- In year 2020-21, 4424 Nos.of well is electrified against target of 4363 nos.
- 101.4 % Achievement

Dark Zone Scheme

- Non Tribal Area and Dark Zone Area.
- Drip irrigation in minimum 2 acres land or 50% of total land whichever is higher (compulsory)
- Service connection charge as per GERC and energy deposit is to be recovered from applicant.
- In year 2020-21, 11126 Nos.of well is electrified against target of 12412 nos.
- 89.6 % Achievement

Schedule Caste Sub Plan (SCSP AG)

- Implemented in all over area of Gujarat.
- For Schedule Cast beneficiary only.
- Applicant has to pay only energy deposit charges only
- In year 2020-21, 424 Nos.of well is electrified against target of 619 nos.
- 68.5 % Achievement

Tatkal Scheme

- Any registered applicant under normal scheme can be allowed to switchover for Tatkal scheme
- Works are taken up by overriding priority of normal scheme
- Applicant has to adopt Drip irrigation in minimum 2 acres land or 50 % of total land- whichever is higher.
- Applicant has to pay 70 % of the Estimated cost and Energy deposit.
- In year 2020-21, 212 Nos.of well is electrified

GOG Schemes: Electrification of House Holds

Kutir Jyoti Scheme

- Applicable to tribal beneficiaries having Annual Income below below Rs 150000/- for Urban and 120000/- for Rural area.
- Applicant will get connection free of cost.
- Beneficiaries will get connection with one point wiring, meter and one bulb in the Huts.
- In year 2020-21,2838 Nos.of connection is given against target of 4390 nos.
- 64.6 % Achievement

Zupadpatti Scheme

- Annual Income of Beneficiaries shall be below (Rs.150000 for urban area Rs.120000 for Rural area) or name in BPL list.
- Beneficiaries will get connection with one point wiring, meter and one CFL in the Huts.
- No registration fees
- In year 2020-21,15545 Nos.of connection is given against target of 13460 nos.
- 115.5 % Achievement

Schedule Caste Sub Plan (SCSP)

- Applicable to Schedule Caste Beneficiaries without income limit for any areas.
- For Society Electrification where the population of Schedule Caste is more than 50%.
- Beneficiary will not pay any Charges except Deposits and test report charges.
- In year 2020-21,4788 Nos.of connection is given against target of 4230 nos.
- 113.2 % Achievement

GOG Schemes: HVDS & Sagarkhedu

HVDS Scheme

- HVDS Scheme “ High Voltage Distribution System” by installing smaller size of Distribution Transformers and thereby reducing LT Lines up to negligible level by converting it into HT Line.
- To improve Voltage profile in rural area.
- HVDS scheme is granted by GOG from Energy conservation fund.
- In Year 2020-21, Rs.4.82 Cr. has been incurred against target Rs.4.0 Cr. in the scheme.
- 121 % Achievement

Sagarkhedu (SSVY)

- GOG has implemented the Sagar Khedu Sarvangi Vikas Yojana (SSVY) scheme in various coastal area of Gujarat for old network strengthening work i.e. Old conductor replacement, Old distribution box, Electric pole replacement, V-cross arms etc. In UGVCL, the coastal area of Dhandhuka & Dholera taluka covered in this scheme from the year 2012-13.
- In Year 2020-21, Rs.1.00 Cr. has been incurred against target Rs.1.00 Cr. in the scheme.
- 100 % Achievement

Sardar Krushi Jyoti Yojana (SKJY)

Scope of the work :-

- Scheme applicable only for Agricultural feeder
- Replacement of old/deteriorated conductors having more than three joints in one span & conductor life more than 35 years in Ag feeder
- In this scheme various activity like plumbing of pole, replacement of deteriorated insulator, Providing of stay sets, trimming of tree branches are being carried out.

Out Come :-

- Improve the Power Reliability.
- Reduction of interruption resulting enhance in consumer satisfaction
- Reduction in snapping of conductor resulting reduction in incident of accident.

Sardar Krushi Jyoti Yojana (SKJY)

UGVCL	Target & Planning			Achievement			
	Nos. of Feeder	Conductor to be Replaced in KM	Approximate Expenditure to be Incurred (In Lacs)	Nos. of Feeder	Conductor Replaced in KM	Expenditure Incurred (In Lacs)	% Achievement
2017-18	258	2296.20	1204.51	240	2297.02	1204.80	100.02
2018-19	233	3272.71	1640.82	223	3225.74	1641.89	100.06
2019-20	217	2995.94	1653.60	211	3008.31	1660.25	100.40
2020-21	203	2084.56	1657.49	203	2125.50	1661.11	100.22

SKJY Work of 11KV Chandrapura Feeder of Salal S/dn



Before conductor replacement



After conductor replacement

SKJY Work of 11KV Chandrapura Feeder of Salal S/dn

Before



After



Distribution Infrastructure Shifting Scheme (DISS)

Scope of the work :-

- Shifting of HT,LT line and Transformer Centre obstructing to the existing road /road widening in Nagarpalika / Panchayat area.
- 100% GOG Grant.

Out Come :-

- To facilitate development such as road widening.
- Strengthening the electrical network for improvement in power reliability & Safety of the general public.
- Improvement in aesthetics of distribution network and towns / villages.



Distribution Infrastructure Shifting Scheme (DISS)

Year	Target in Crore	Nos. of NagarPalika / Gram Panchayat	Nos. of works completed	Expenditure booked (in Crore)	% Achievement of Exp. Booked ref. to Target
2016-17 (Only Urban)	9.00	38	250	9.00	100%
2017-18 (Urban + Rural)	26.00	(38 + 1844) =1882	2175	26.82	103.15%
2018-19 (Urban + Rural)	15.00	(38+2550) =2588	1416	15.869	105.8%
2019-20 (Urban + Rural)	15.00	(38+2550) =2588	1511	18.507	123.38%
2020-21 (Urban + Rural)	15.00	(38+2550) =2588	1058	15.498	103.30%

Kisan Suryodaya Yojana

- An innovative approach of “Kisan Suryodaya Yojana” intending to use generated solar power by shifting night hour’s agriculture supply to day time i.e. providing three phase agriculture supply during 5 AM to 9 PM.
- It will have dual benefit by extending relief to farmers on one hand through day time agriculture power supply and on other hand facilitate consumption of generated solar power during day time by agriculture sector.
- The Gujarat budget 2020-21, aims to boost farmers income.
- The main advantage of KSY Implementation is farmers facing hardships as well as risk of animals and insects for agriculture activity during night hours is reduced.
- Construction of 234 Nos of New 66 KV lines totaling to 3490 Circuit Kms (CKM)
- Creation of new 9 numbers of 220 KV Substations
- Financial outlay of Rs. 3500 Crores

KISAN SURYODAYA YOJANA



On October 24, 2020, after the launch of Kisan Suryodaya Yojana in Gujarat with the blessings of the Hon'ble Prime Minister of India, Shri Narendrabhai Modi, the scheme was inaugurated by the Hon'ble Chief Minister of the State of Gujarat, Shri Vijaybhai Rupani on January 05, 2021 for the farmers of North Gujarat at Bayad.

Earlier, the power distribution companies owned by Gujarat Urja Vikas Nigam Limited used to provide 8 hours of electricity to the farmers of Gujarat at different times of the day. According to the schedule, 8 hours electricity was provided for farming even at night. Due to the power being provided at night, farmers had to face the danger of being bitten by wild animals, as well as toxic organisms. They had to face woes of nocturnal activities. Efforts have been made by the Gujarat government under the Kisan Suryodaya Yojana' to overcome this problem of farmers. Arrangements have been made in different districts of Gujarat to provide power supply only during the day by proper planning.

The target is to complete the distribution of 5591.05 MW power supply to a total of 380956 agricultural power consumers in 4501 villages of North Gujarat by providing electricity at the end of Year 2022.

District wise Data

DISTRICT WISE TALUKAWISE KSY FULL & PARTIAL CHARGED CENSUS VILLAGES (INC. OG VILLAGES) & TOWNS DETAILS							
DISCOM	District	Taluka	Total Villages	Non-AG Villages	Full Charged	Partial Charged	Pending Villages
UGVCL	Ahmadabad	13	462	65	66	38	293
UGVCL	Gandhinagar	4	275	5	52	16	202
UGVCL	Mehsana	10	620	3	32	75	510
UGVCL	Patan	9	522	36	69	36	381
UGVCL	Arvalli	6	682	6	66	38	572
UGVCL	Sabarkantha	8	709	4	46	53	606
UGVCL	Banaskantha	14	1249	15	0	0	1234
UGVCL	Kheda	3	56	0	0	0	56
UGVCL	Surendranagar	4	15	7	5	2	1
UGVCL TOTAL		71	4590	141	336	258	3855
TOTAL KSY IMPLEMENTED CENSUS VILLAGES + OUTER GROWTH VILLAGES + TOWNS					594 Nos. (570 Census Villages + 17 OG + 7 Towns)		

Renewable Energy



Government initiatives on renewable energy for climate change lead to various programmes such as SRT (Solar Rooftop), Solar Stand Alone Pump and Solar Home light schemes started under Commerce and RE sections. Upon introduction of SKY scheme, solar work increased and requirement of separate Solar Cell arised. So, Solar Cell under the Project Department came into existence in 2018.

Due to various schemes introduced by MNRE and promoted by GoG, work on Solar installation increased. Presently, schemes such as SRT (PHASE -II) with subsidies for the residential sector are ongoing. PM KUSUM-A, PM KUSUM-B and PM KUSUM-C, SSDSP and SKY along with SRT for industrial, commercial and residential (without subsidy) handled through GEDA

portal are operational.

Environment of Gujarat is blessed with a climate of large magnitude of solar energy. So the Central Government is also expecting handsome contribution from Gujarat. Gujarat DISCOMs are performing well in this direction. Solar installations are increasing in numbers and in terms of MW generation. Importance of the Solar Cell is becoming prime for implementation of various solar schemes and achieving given targets.

Scope of the Solar Cell will not be limited to solar panel installations, but it will work as a coordinator between solar power generators (including residents, farmers, commercial establishments, industries, investors etc.), solar panel installation agencies, Government and end-users.

SMALL SCALE DISTRIBUTED SOLAR PROJECTS-2019

- Objectives of SSDSP-2019
- To facilitate and promote speedier development of Solar Projects in multiple scattered pockets of barren and uncultivable land.
- To provide visibility about available tariff for sale of power to Small Solar Power Projects developers who can't participate in competitive bidding.
- To mobilize local resources, enhance, skill development and create employment opportunities in solar energy sector by promoting small scale entrepreneurs.

Small Scale Distributed Solar Projects-2019

- Eligibility of SSDSP-2019
- Individual/Partnership Firm/Company /Society
- Capacity:- 0.5 MW to 4.0 MW
- Processing Fee:- Rs. 5/- per KW +GST
- Ownership Lock in Period:- 1.0 Year from COD.
- Project Commissioning Guarantee:- Rs. 5.00 Lakhs/MW
- Project Commissioning Period:- 18 Months

SSDSP Application at UGVCL

Report of Small Scale Distributed Solar Projects-2019

Name of C.O.	Nos. of Application Registered	MW (AC)	Nos. of Estimate Paid	MW (AC) of Paid Applicants	Nos. PPA Done	MW(AC) of PPA Applicants
HMT	839	579.19	432	236.07	410	224.7
MSN	945	668.66	340	247.62	324	237.8
PLN	1522	1098.01	464	359.30	419	330.6
SBT	234	155.88	93	53.15	74	43.7
Grand Total	3540	2502	1329	896.16	1227	836.8

SURYA Gujarat

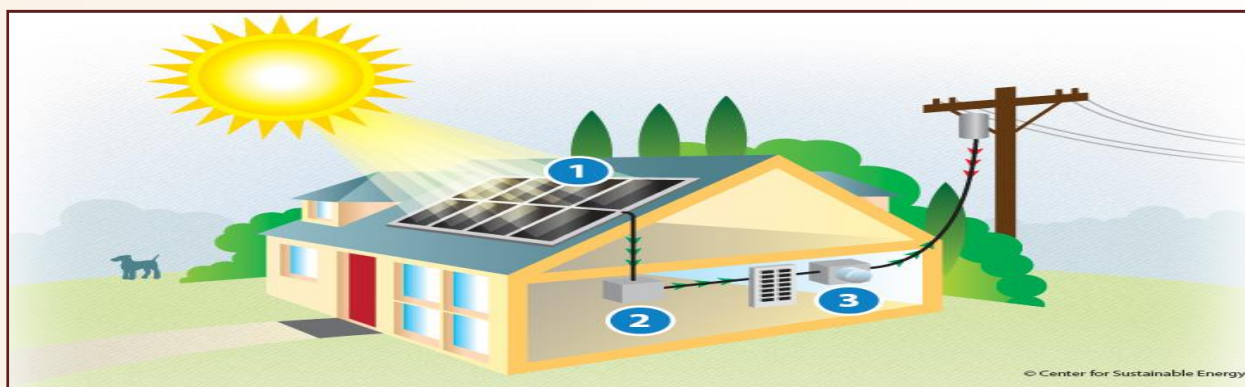
OBJECTIVE:-

- This Scheme shall be called as “SURYA-Gujarat” (Surya Urja Rooftop Yojana-Gujarat) with following provisions:
- Target: The target for installations of solar rooftops shall be to cater 2 lac consumers during the year 2019-20 and cumulatively 8 lac consumers by the end of the financial year 2021-22, over and above the capacity commissioned as of 31/03/2019.
- Operative Period: The Policy operative period shall be up to the financial year 2021-22.
- Subsidy: State subsidy of
 - 40 % shall be available for solar rooftop systems up to 3 kW;
 - 20 % for solar rooftop systems beyond 3 kW up to 10 kW, installed and commissioned by private residential consumers. Any solar rooftops in the residential sector commissioned during the operative period of this scheme shall be eligible for the subsidy.

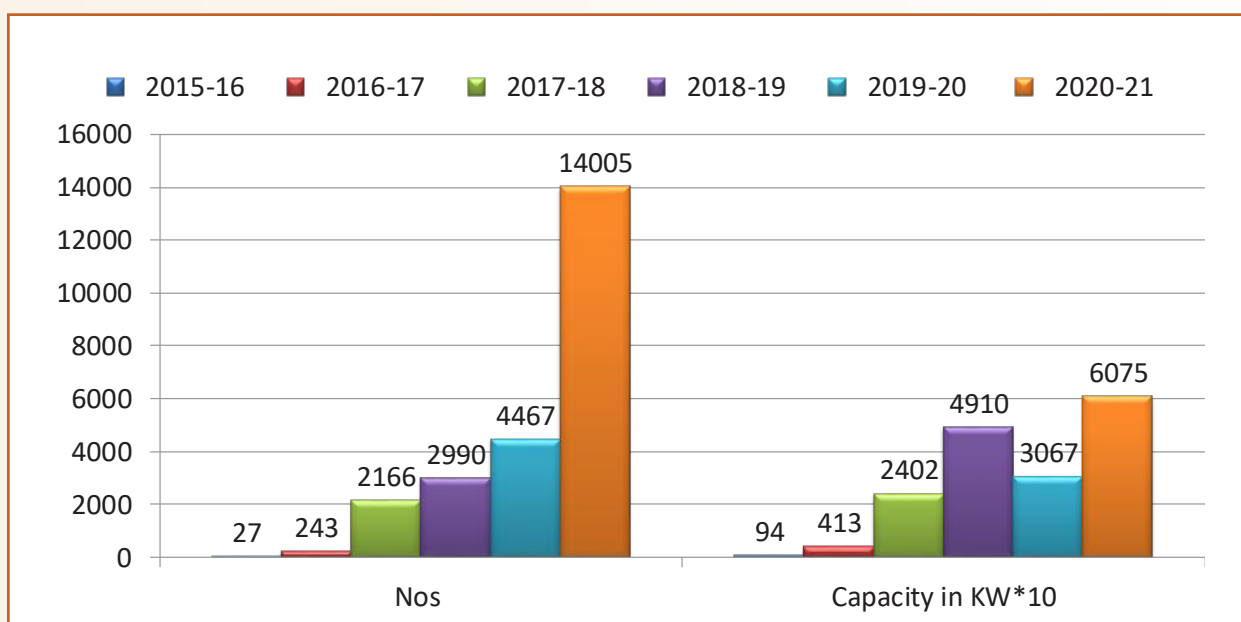
- **Capacity:** Any capacity of solar rooftop system equal to or greater than 1 kilowatt DC can be installed irrespective of the sanctioned load of the consumer; however, the subsidy shall be limited to maximum capacity of 10 kW.
- **Net Metering and Surplus Power:** The electricity generated from the solar rooftop system shall be net metered on the billing cycle period and the surplus power fed to the grid upon self-consumption shall be purchased by the concerned DISCOM at the rate of Rs. 2.25 per unit.
- The state subsidy shall be eligible throughout the operative period of the policy.
- **Eligibility:** All consumers of all the DISCOMs in the state having service connection under residential category of the DISCOM shall be eligible.

Solar Rooftop Overview- (As on 31.03.2021)

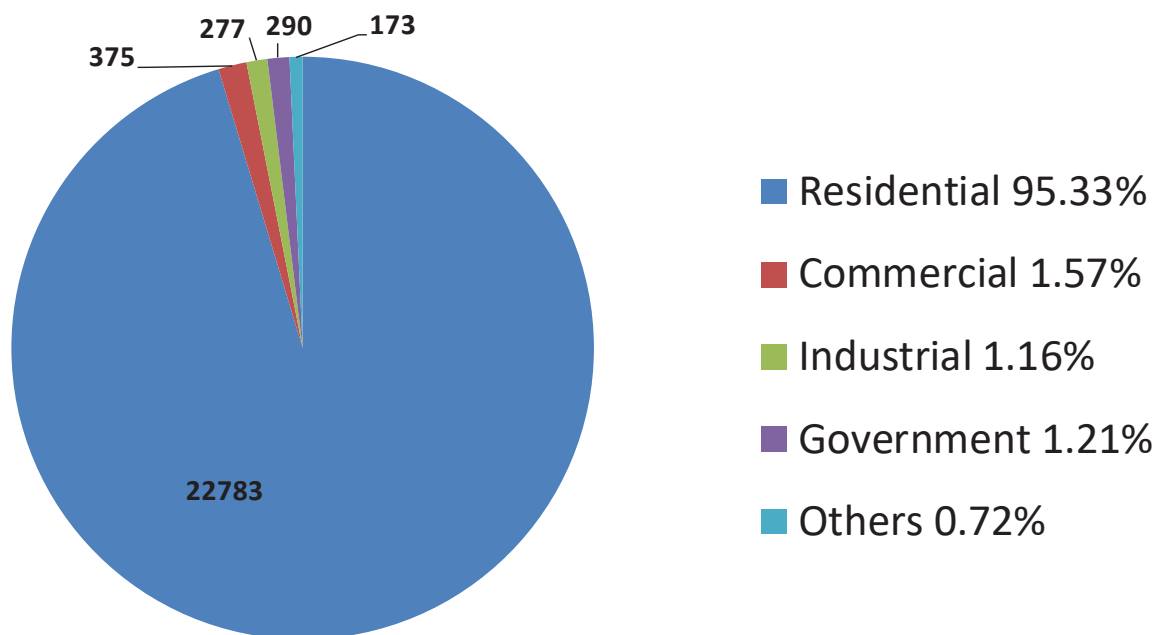
Particulars	Type of Connection					
	R/L	C/L	Ind	Govt	Others	Total
Released in No's	22783	375	277	290	173	23898
Released in KW	87021	6764	65635	6448	3740	169608



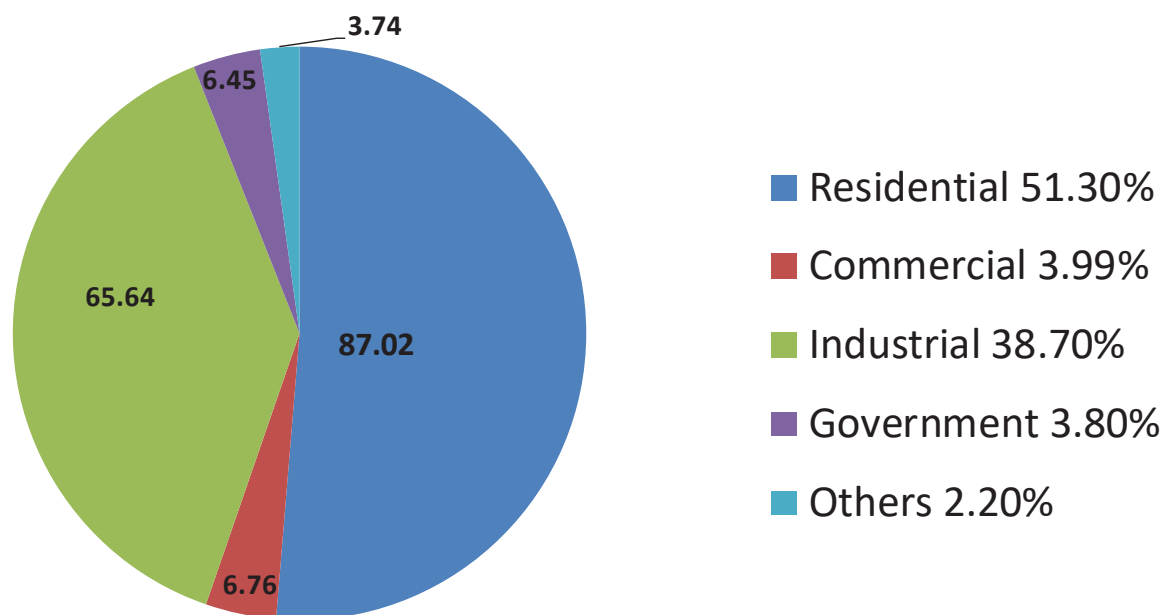
Solar Rooftop Progress (Year wise)



SRT Projects Commissioned (Nos) as on 31.03.2021



SRT Projects Installed capacity (MW) as on 31.03.2021



GOG Schemes : Solar AG Pump Sets

Solar Agriculture Pump Sets

- Scope of work: New agriculture connection with stand alone (off-grid) solar system with 3HP, 5 HP & 7.5 HP pump sets.
- Beneficiary has to pay Rs.5000/- per HP for normal category and Rs.1000/-HP for SC/ST category.
- Total 934 Nos. of Solar Pump Sets has been installed in last Four Year.



GOG Schemes : Solar Home Lights

Solar Home Light System

- Scope of work: New lighting connection in scattered residential area with stand alone (off-grid) solar system with 400 watt PV system.
- Beneficiary has to pay Rs.4500/-per system for normal category and free of cost for SC/ST/BPL category.
- Total 10400 Nos. of Solar Home Light System has been installed in last Three Year.



PM KUSUM Component- A

- Capacity per Plant :0.5 to 2MW.
- Distance from sub-station :05 Km
- Substation capacity : 33/11kV or 66/11kV or 110/11kV
- Setup by farmers/cooperatives/panchayats/projectdeveloper/ Farmer Producer Organisation(FPO) /Water User associations (WUA)
- Scheme to be implemented primarily on barren/uncultivable land
- On agricultural and solar power plant to be installed in stilt fashion
- DISCOM eligible for PBI@Rs.0.40per unit or Rs.6.6lakh per MW
- DISCOMs to purchase power:
 - At pre-fixed tariff or
 - Tariff based bidding if applications are more than capacity feasible.
- DISCOM obliged to buy the entire power from RPG within the contract capacity
- Extension of the PPA period beyond 25years through mutual agreements between the RPG and DISCOM
- DISCOM to maintain LC and Escrow Arrangement
- RPG to commission plant within nine months from issued of LoA
- Payment made to RPG for power supplied to DISCOM

PM KUSUM –B (Stand Alone)

- CFA@30% of benchmark cost or the Tender cost, whichever is lower.
- (50% for NE States including Sikkim , Hilly States and Island UTs)
- 30% subsidy by the State Governments
- Balance 40% by farmer(20% in case of NE/hilly States & Island UTs)
- Bank finance may be available to farmers for 30%/10% of the Cost.
- Pump:1. Submersible (Water filled/oil filled) 2. Surface motor
- Capacity: DC/AC: 1.0 HP to 10.0 HP
- USPC: Universal Solar Pump Controller (Optional & cost borne by Beneficiaries)
- Beneficiaries select one of the empanelled agencies
- Application register by empanelled agencies.

PM KUSUM–C (Grid Connected)

- 30% CFA from GOI-MNRE (up to 7.5 HP)
- 30% Subsidy from GoG
- 10% Farmer's initial contribution
- 30% Farmer's contribution through Loan
- Solar capacity (KW)= Max. 2 times Pump capacity in KW

Objectives of the SKY Scheme

- Provide adequate and reliable day-time power to farmers
- Incentivise farmers for surplus power exported to the grid
- Provide a secondary source of income
- Encourage farmers to efficiently utilise power and water.
- Help farmers become self-reliant for their power requirement
- Create employment opportunities for rural areas.
- Help the DISCOM to promote renewable energy
- Reduce the subsidy burden on GoG
- Reduce cross subsidy burden on other consumers
- Reduction in Distribution loss
- Emphasis to distributed solar generation

Salient features of the SKY Scheme

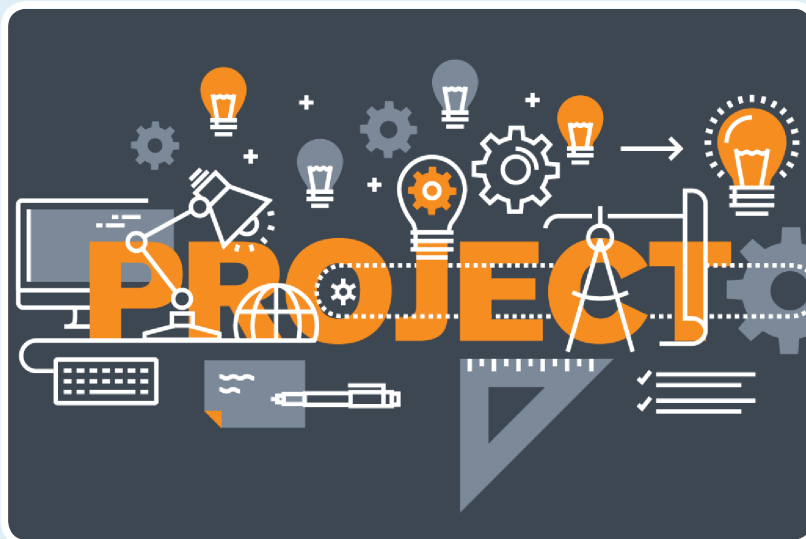
- Scheme is for the farmers having Agriculture Connection
- Participation of minimum 70% farmers of Selected AG Feeder
- Farmers will be provided grid connected SPV System (1.25 time of Contracted Load in HP) with 7 year warrantee.
- Day time Power Supply to SKY consumers for 12 Hrs.
- Non-SKY AG consumers will get 8 hours 3-Ph power.
- Purchase of Surplus energy by DISCOM at the rate of Rs. 3.50 /Kwh for 25 years
- 30% Capital subsidy from MNRE , GOI
- 30 % Subsidy from GOG in form of EBI (Evacuation-based Incentive) Rs. 3.50 per Kwh on exported energy after deduction feeder losses in excess of 5% (Up to 1000 unit /Kw/Year) for 7 years.
- 5 % Contribution from farmer
- 35 % Loan by GOG on behalf of farmer, for which instalment will be paid within 7 years from amount to be paid to farmer against purchase of surplus energy.
- Farmer will get ownership of PV system after payment of loan

Achievement of the SKY Scheme

Sr. No	Feeder	SPV System Capacity AC (KW)	SKY AG Consumers	CUF (%)		T&D Loss (%)		Consumer Refund / Recovery (2020-21)	
				FY : 2019-20	FY : 2020-21	FY : 2019-20	FY : 2020-21	Nos. of SKY Consumers Payable	Nos. of SKY Consumers Recoverable
1	Madhav	123	15	17.32%	18.36%	3.77%	3.12%	13	2
2	Napda	177	23	16.92%	18.43%	7.66%	4.51%	18	5
3	Nityanand	625	12	17.36%	17.94%	2.24%	2.62%	10	2
4	Rajgadh	219	20	18.38%	18.83%	4.27%	3.89%	20	
5	Aantarness	931	13	17.53%	17.31%	4.72%	5.07%	13	
6	Dehgamda	601	36	18.09%	18.73%	3.82%	4.07%	32	4
7	Baliyadev	413	10	15.58%	15.32%	2.53%	4.26%	7	3
8	Bakrol	534	29	15.12%	15.41%	7.60%	4.59%	15	14
9	Mahakali	1915	25	18.62%	19.34%	4.08%	4.24%	25	
10	Naliya	3180	34	17.02%	18.22%	5.45%	5.93%	30	4
11	Navagam	1420	43	18.33%	18.76%	4.11%	5.46%	42	1
12	Zanzansar	1590	21	17.43%	17.87%	6.12%	6.25%	18	3
13	Ganeshpura	239	20	17.58%	19.49%	6.77%	4.32%	16	4
14	Sardar	1065	35	14.54%	16.06%	6.91%	7.15%	14	21
15	Aniod	851	81	15.07%	17.33%	4.16%	8.66%	50	31
16	Banas	2845	40	20.42%	19.50%	8.09%	7.65%	30	10
17	Singpur	1763	147		18.22%		5.86%	57	90
18	Rupnagar	1049	17		19.10%		5.70%	14	3
Total		19540	621	17.21%	18.26%	5.08%	5.81%	424	197

Project

Uttar Gujarat Vij Company Limited is providing uninterrupted and reliable power supply to its 38 lakh consumers through a robust power distribution system. A Project Department has been set up by the company for current requirements as well as future plans.



The Project Department has successfully carried out the “Make in India” mission of the Hon’ble Prime Minister by providing uninterrupted power supply to international companies by establishing underground power supply in different new GIDCs under the guidelines of the Department of Energy and Petrochemicals. Projects like Japanese Park, Bol GIDC, Defense Park, Woman Park have been successfully completed and work in Bhagapura and

MSME Park is in progress.

Recently, the Hon’ble Prime Minister has announced the Revamped Distribution Sector Scheme. In pursuance to that, under the guidance of Mr. K. S. Randhawa, Managing Director, UGVCL, replacing the overhead power lines in the company areas around Ahmedabad

city with the underground cable network is planned to provide high quality power supply. It is also planned to connect 11 KV network with each other to ensure uninterrupted power supply at taluka level.

When our present Prime Minister was the Chief Minister of Gujarat,

the “Jyotigram Yojana” separated agriculture and domestic consumers, and started to provide 24 hours power supply in every village. Due to its remarkable success, Gujarat has been declared a model at the national-level. In the Revamped Distribution Sector Scheme scheme, India has planned to provide good quality power supply to all consumers by providing power supply to agriculture and domestic consumers from different feeders.

GIDC Industrial Park Electrification

- EPD Guidelines dated 20.07.2016
- Projects for Conversion of Over Head Network to Under Ground Electrification Network
- Funding Pattern : 80% Critical Infrastructure Project & GIDC ; 20% UGVCL
- **PROJECTS COMPLETED**
 - BOL GIDC, Sanand
 - Japanese Park, Vithhlapur
 - Women;s Park, Sanand
 - Defense Park, Ukardi
- **PROJECTS UNDER PROGRESS**
 - Bhagapura Industrial Estate
 - MSME Park, Mandal
 - Remaining Area of BOL GIDC, Sanand

GIDC Industrial Park Electrification

Sr. No.	Name of Project	Actual Project Cost in Rs. (Crores)	Amount Recovered from GIDC + IC in Rs. (Crores)	Project Status
1	BOL GIDC	68.61	66.32	Completed
2	JAPANESE PARK	10.56	6.61	Completed
3	DEFENSE PARK	4.80	3.26	Completed
4	WOMEN's PARK	12.25	9.65	Completed
5	BHAGAPURA GIDC	28.24	23.70	WUP
6	MSME PARK	21.68	18.09	WUP
7	REMAINING BOL	43.50	35.17	WUP

- GIDC Office, Gandhinagar is also under planning to develop a new Industrial Park at Khoraj which is largest industrial GIDC.

GIDC Industrial Park Electrification



RMU with Fencing and CTC installed at Women's Park



RMU with Fencing and CTC installed at Women's Park

Benefits of Underground Electrical Network In GIDC

Main Objectives:

- To provide uninterrupted, reliable and quality power supply to the consumers.
- The Consumer satisfaction is our prime important and also the vision of Company.
- To preserve aesthetic beauty of area and to reduce numbers of accidents ultimately save to human life.
- Hassle free, timely connections within SOP.
- Aesthetics beauty of the area will be preserved.
- Reduction in %age Technical & Distribution Losses.
- Creation of Underground Network Asset at Financial Implication of 20% of Project Cost.

Proposed Exposure Under GoG Circular for Valuable Consumers of GIDC

- | | |
|--|---|
| ■ There are several GIDC under Jurisdiction of UGVCL has applied for conversion of existing overhead electrical network into Underground Cable Network | ■ Kathwada GIDC |
| ■ Naroda GIDC | ■ Kalol GIDC |
| ■ Kerala GIDC | ■ Mansa GIDC |
| | ■ Dediyaasan GIDC |
| | ■ Chhatral GIDC |
| | ■ Forthcoming New Industrial Estate, KHORAJ |

GoI Scheme - SCADA

The Ministry of Power, Government of India, has launched the Restructured Accelerated Power Development and Reforms Program (R-APDRP) in the 11th Five-year Plan, Power Finance Corporation (PFC) has been designated by the Government of India as the Nodal Agency for the program. The program spans from data acquisition at the distribution level till monitoring of results of steps taken to provide an IT backbone and strengthening of the Electricity Distribution system across the Country.

The objective of the program is real-time monitoring & control of the distribution system through a state-of-the-art SCADA/DMS system encompassing all distribution Substations & 11 KV network would help in achieving this objective of R-APDRP in the project areas.

The program is divided into two parts: Part-A & Part B. Part A covers the Ahmedabad Town periphery area with 1.44 lakh consumers. Initially, for Part A 100% funds for the approved projects shall be provided through a loan from GOI and the loan 33.81 Cr. shall have converted into a grant after establishing the baseline data.

The project objective is to provide uninterrupted quality power and for a reduction in aggregate technical & commercial (AT&C) losses in the project area can be achieved by,

- Faster identification of fault & early restoration of power
- Proper planning and design of distribution network
- Proper metering
- Strategic placement of capacitor banks &

switches

- Plugging pilferage point

Project is established in Ahmedabad Peripheral area which covers 19 substations and 12 Sub-Division offices and 3 Division offices. The control room has been established at SCADA centre, Gandhinagar for real-time monitoring and control of SCADA/DMS activities with a goal to reduce minimal nos. of interruption and to provide reliable power.

The project also covers the installation of 626 Nos of RMUs, 5 Nos of Sectionalisers and 503 Nos. of FPIs to enable the SCADA control room to take decisions in case of abnormal conditions and decision making for changing of power to another

feeder to reduce the interruption on the feeders.

RVDU (Remote Video Display unit) is also provided to SDO to enable them to take timely action in the case of abnormal conditions. Total 411 nos.



of FRTUs are installed on RMU for remote operation from SCADA control room to restore power immediately.

The SCADA control room has been in operation Since June-19 and take more than 600 operations in real-time to enable the SDO for providing/restoring power in abnormalities. The main motive of the project is to provide an uninterrupted power supply to consumers and in turn, improve the level of consumer satisfaction.

Way Forward:

UGVCL will propose to include more towns to provide reliable power to consumers and will aim to achieve an optimum level of consumer satisfaction in the near future.

SCADA Project

Supervisory Control and Data Acquisition

- Its involves net working of a group of Substation/11 KV Line for data collection in respect of all equipment at a host station.
- System can be monitored on real time and also controlled by issuing commands to remote station where RTUs/FRTUs are located.

UGVCL : SCADA - A

Project..

- Area : Ahmedabad Periphery area of UGVCL
- Substation : 19 Nos
- Division covered : 3
- Subdivision : 12
- Feeder : 136
- Consumer Covered : 2.75 lakh approx
- GOI has approved Rs. 33.82 cr as Grant amount
- PFC is Nodal Agency
- It is approved for establishment of IT equipment communication

Project Cover..

- Installation of RTUs (Remote Terminal Unit) in 19 nos. of substation
- Installation of FRTU(Field Remote terminal unit) for RMU & Sectionalizer in field.
- Installation of Modem at FPI location(With DCU)
- Installation & commissioning of centre control room
- Establishment of communication system (MPLS & GPRS)

UGVCL : SCADA - B

Project..

- Area : Ahmedabad Periphery area of UGVCL
- Substation : 19 Nos
- Division covered : 3
- Subdivision : 12
- Feeder : 136
- Consumer Covered : 2.75 lakh approx
- GOI has approved Rs. 68.54 Cr
- 25 % of Expenditure is given by GOI as loan amount as loan amount
- PFC is Nodal Agency

Project Cover..

- It is approved for establishment of SCADA enable Equipment
- Installation & Commissioning of RMUs (Ring main Unit) in 626 nos.
- Installation & Commissioning of sectionalizer at 5 location
- Installation of FPI (Fault passage Indicator) with DCU (Data concentrator Unit) at 503 location

UGVCL : SCADA

Project Status

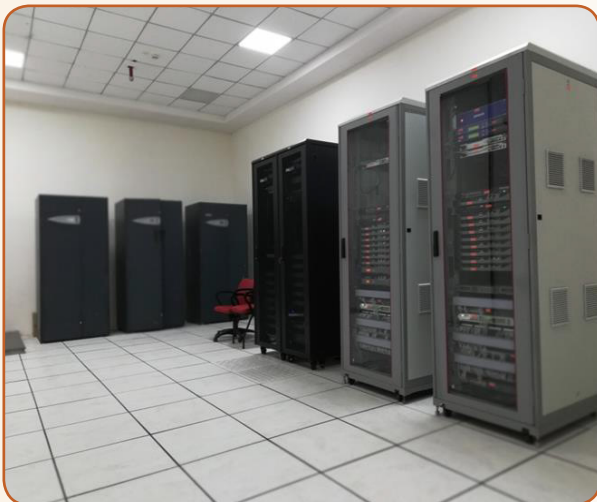
- RTU : 19/19
- RMU: 626/626
- For RMU & Sectionalizer : 411/ 626
- FPI : 429/503
- DCU: 429/503
- Communication system : 1. RTU & FRTU- Chemtrol Ind Limited 2. Airtel

SCADA Building, Gandhinagar



UGVCL : SCADA

Server Room



Centre Control Room



RMU



RMU

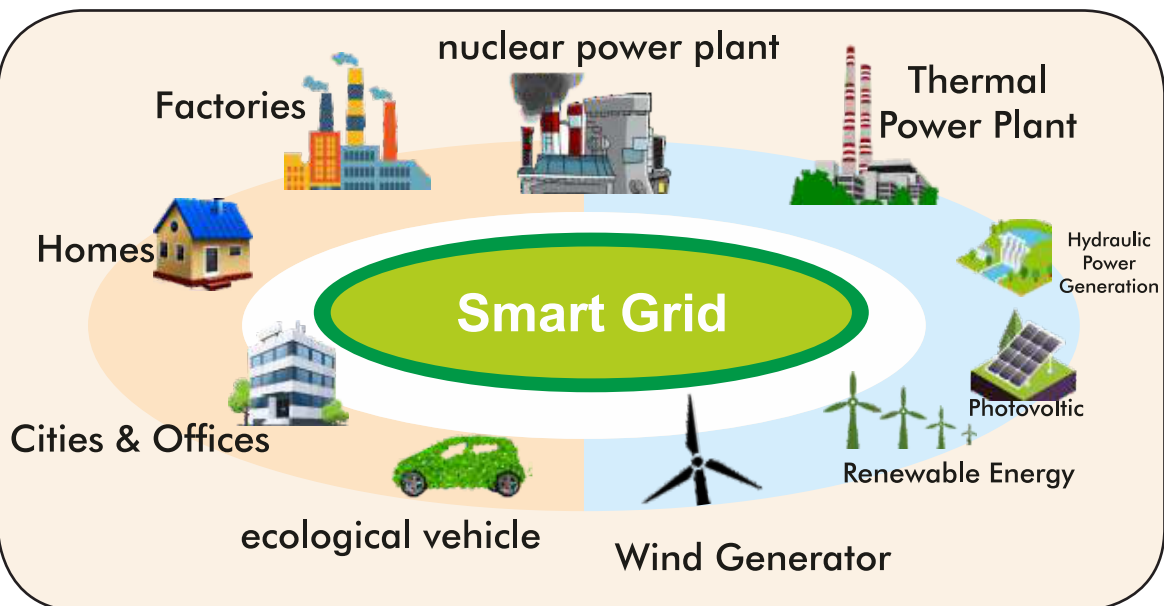


Benefit of the SCADA Project

- Faster Identification of fault & Easy Restoration of Power.
- Control room is in operation since June.2019
- More than 600 remote operation has been taken through SCADA Control room
- Proper Planning and Design of Distribution Network.
- Better & Quick complain reduction.
- Improve Reliability Indices & Quality of Power.
- Load changing remotely using Breaker / RMU / Sectionalizer.
- Real time Monitoring & Control of Distribution System.
- Better Utiliasation of Asset

Smart Grid Pilot Project : Naroda Urban Area

Smart Grid Pilot Project Naroda Urban Area



Smart Grid

The project is among the 8 pilot projects selected by the Government of India, Ministry of Power for testing the Smart Grid technologies in the Power Distribution sector. The project has been sanctioned under NSGM (National Smart Grid Mission) with a 50% grant from MoP and the remaining from UGVCL's own fund.

The smart grid pilot project involves a mix of residential, commercial, industrial consumers. The area chosen as the pilot site is the Naroda urban sub-division of the Sabarmati circle. This project covers the five functionalities of the Smart Grid decided by MoP.

The functionalities covered under the project are as under:

- AMI for Residential and Industrial
- Peak load Management
- Renewable integration
- Demand Response
- Outage management system (through SCADA)

Under the project, more than 27000 Smart meters have been installed on different categories of consumers. The meters installed comply with IS: 16444 which was the first time in India for the smart grid pilot project.

Under this project, all meters' parameters like instantaneous data,

load profile have been recorded for every 15 minutes interval. All tampers and events have been recorded with a snapshot of instantaneous data whenever it occurs in the meters.

The main utilisation of the system is as under:

Automatic meter reading and bill generation:

UGVCL has started automated reading of meters from August 18 onwards for more than 27000 consumers and cumulatively 3.5 lakh bills are generated. This has nullified the errors made through human intervention (reduction in 60 man-days per month).

Remote connect/disconnect:

UGVCL has worked for the disconnection of overdue payment consumers. UGVCL has intimated the overdue consumers for payment of bills through SMS gateway 24 hours before disconnection of meters. Even after this intimation, if the consumers are not able to come forward then disconnection has been initiated for the MDMS system of the Smart grid. Since November 18. There are more than 15000 consumers who are disconnected and connected from the smart grid system (with SMS payment notices and notifications) which results in quick recovering of due

payment. (reduction in 10 man-days per month)

Net-metering for solar rooftop consumers:

Smart grid is all about bi-directional communication. There are 120 connections having solar rooftop systems installed at their premises are integrated into the smart grid system. Import and export readings of such consumers are integrated in the system. This can serve the purpose of renewable integration.

Consistent data availability:

The benefit of the system is the excellent availability of data. Through this system up to 99% has been achieved which includes data fetching from 1-phase and 3-phase consumers in a 15-minute interval for load survey, alarms and events (as and when it occurs) and daily billing data. Due to the above, UGVCL has been able to identify the consumers violating the contracted demand, alerts etc.

Energy audits:

UGVCL has achieved energy audits up to DT level & feeder level for the pilot feeder area in real-time with efforts of installing bi-directional meters on distribution transformers.

Consumer portal and mobile application:

under the project consumer portal and mobile application has been developed for monitoring of energy data

by the consumer. The consumers can monitor their history of consumption, payment, billing history through a portal and mobile application.

Real-time alert information:

Through the smart Grid system, UGVCL gets tamper/event information in real-time with a snapshot of instantaneous parameters for that consumers as and when events occur in the meters

Outage Management:

UGVCL will get outage management data up to the consumer level through a smart grid system.

Benefits:

Overall, this system enables to achieve consumer satisfaction by carrying out the following activities as under:

- Accurate billing
- Mobile application
- Consumer portal
- SMS facilitation
- Demand-side management

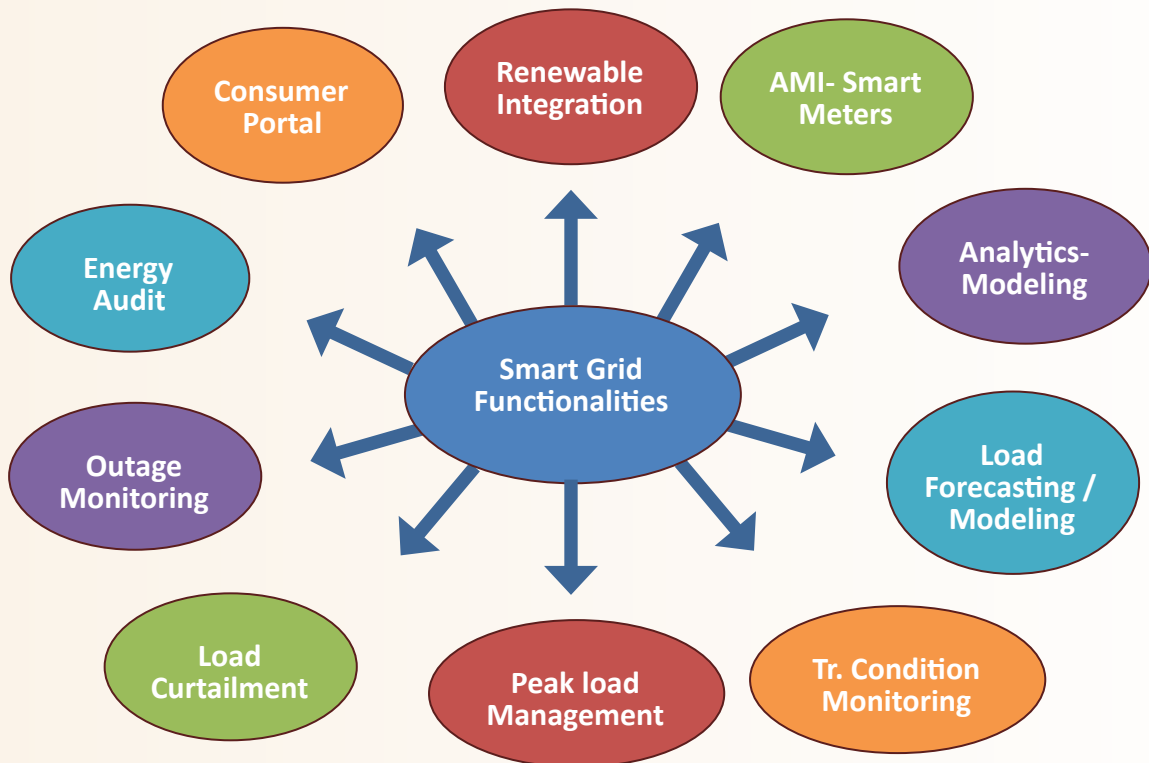
UGVCL has also contacted Hon. GERC for implementation of ToU tariff where GERC has suggested to carry out ToU tariff after successful completion of the project. So following are the Way Forward:

- ToU Tariff
- Pre-paid functionality adoption

Way forward:

UGVCL is going to propose more than 10 lacs smart meters which covers 24 Sdn. across UGVCL under the RDSS scheme.

Smart Grid Pilot Project



Project..

- Area : Naroda Urban area of Ahmedabad city.
- Project cost Rs.35.45 crore.
- Additional PO was given for Rs.3.08 crore.
- Consultancy is hired from Power grid corporation
- Supply and installation of smart meter are provided by M/S Genus
- Data center, application and integration is managed by M/S Fluent grid
- RF communication has been done by M/S Cyan cannode.

Project activity field..

- | | |
|---|---|
| <ul style="list-style-type: none">■ Smart meter covered under the original project.<ul style="list-style-type: none">● 1-phase-21300● 1-phase (net meter)-200● 3-phase whole current-2050● 3-phase whole current (net meter)-100● 3-phase CT operated-100 | <ul style="list-style-type: none">● 3-phase CT operated (net meter)-10● Smart meter covered under the additional PO project.<ul style="list-style-type: none">● 1-phase-3000● 3-phase CT operated-300● 3-phase whole current-700 |
|---|---|

Smart Grid Pilot Project

Project cover..

- Supply and installation of 1Q / 3Q Meter as per IS-16444
- Supply and installation of CT- operated DLMS Meter as per IS-14697
- Installation and commissioning Data center, Application development & Integration with existing system
- RF communication

Project cover..

- Outage management system for all the Consumer
- Development of various application like AMI, Outage management , Peak load management, Demand response etc.
- Infrastructure rectification by UGVCL when ever required.
- Net metering component for renewable integration

Project Status...

- Total (1Q&3Q) 27760 meters has been received
- Project get operation acceptance from Dec.2020
- Every month more than 13000 consumers get billed from the system(Without manual intervention)
- More than 200 consumers get connected/Disconnected remotely from the system.
- 165 nos of Communication Gate Way are installed.

Modem

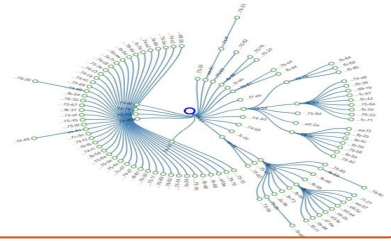


Communication Technology Used

RF Mesh Technology

- Total 165 Nos. of gateway used for @27000 meters
- DCU-to-control center-GPRS technology
- Less Recurring cost compared to GPRS based meters

RF Mesh



Smart Grid Pilot Project

Utility Benefits..

- Automatic meter reading for bill generation (without human intervention)
- Remote connect/disconnect
- Vigilance activity
- Pre-paid metering and net-metering functionality

- Real-time AT & C loss calculation on monthly basis.

Consumer benefits..

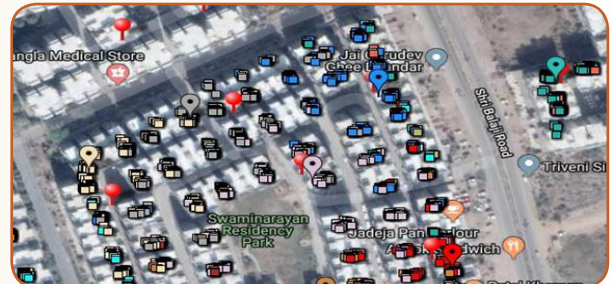
- ToU tariff
- Web portal and mobile application for load monitoring for consumers
- Demand side management

Utility IT Applications

Meter Installation



DCU Position



Utility IT Applications

Meter Communication to DCUs





GoI Scheme

- RAPDRP

UGVCL : RAPDRP - A

- Re-Structured Accelerated Power Development & Reform Program
- Central Govt .Scheme-11 th Five Year Plan
- Nodal Agency- Power Finance Corporation
- Loan of Rs. 35.31 Cr sanction & Expenditure of Rs.28.29 Cr
- Covered 20 Town & 41 subdivision
- Implementing Agency : TCS
- Consulting Agency : Zensar

Project Status..

- **GIS Consumer survey** : 6.16 lakhs / 100 % completed
- **GIS Asset Mapping** : 228 feeder / 100 % completed
- **Meter & Modem installation** : 9026/ 100% completed
- **Integrated Town** : 20 nos / 100% completed
- **Go live Town** : 20 nos / 100% completed
- Consumer care centre commissioned
- **% DTR Availability** = 27.19% (Oct-17)

Module covered..

- Meter Data Acquisition & Energy Audit
- GIS based consumer Indexing & Asset Mapping
- GIS based Integrated Network analysis Module
- Centralized Consumer Care services
- Management Information System
- Web Self Service & System Security Requirement
- Identity & Access Management System

GIS Utilizations

- For Electrical Network data Map
- Instantly Prepare Proposal For New Connection
- Reduced Power Supply Down time
- Actual evaluation of assets
- Network Analysis and Energy Audit
- Preparation of Feeder Bifurcation proposal
- Integrating with Consumer Care System
- Finding alternate source for restoration of power supply

GIS Utilizations

Utilize for ..

- Sub-station / Feeder / DTR / HT consumer meter data acquisition
- AT&C loss monitoring
- Integrated with Billing Module
- Audit with minimum manual intervention
- Real time energy data collection
- Load survey/Tamper data profiles

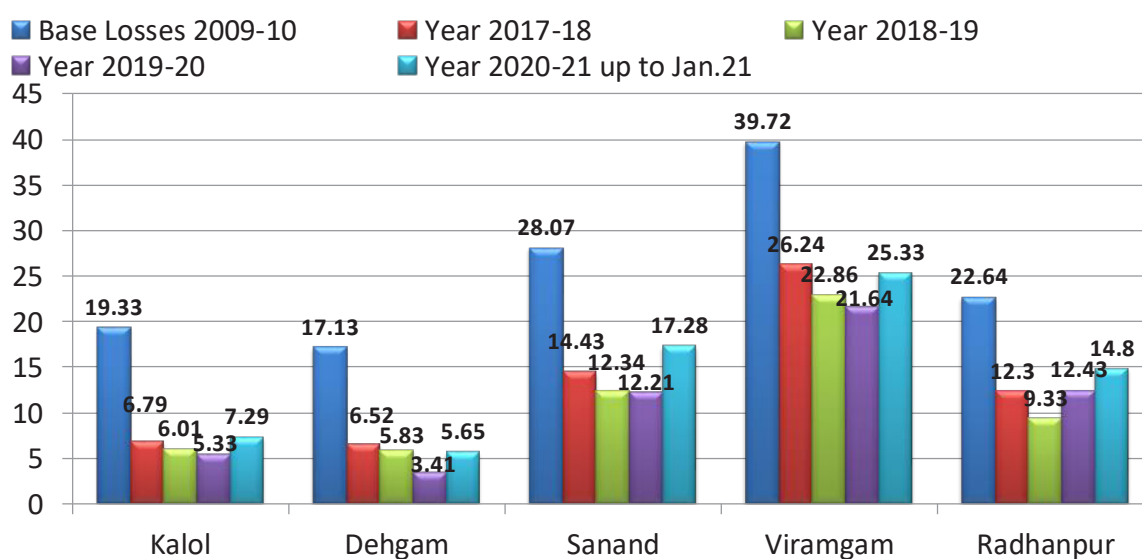
Utilize for ..

- | | |
|-------------------------------|---|
| ■ Utilization factor analysis | ■ Outage information |
| ■ Load factor report analysis | ■ Tamper events |
| ■ Current imbalance analysis | ■ Contract demand / Peak load / off day violation |
| ■ Load survey analysis | ■ Energy / Demand profile |
| ■ Power factor details | |

UGVCL : RAPDRP - B

Project	Project covered
<ul style="list-style-type: none"> Covered Town: 5 Kalol, Dehgam, Sanand, Viramgam, Radhanpur Sanction cost : Rs 20.5Cr Expenditure Incurred : Rs 19.29 GOI Fund is as loan @25 % of Project Cost 	<ul style="list-style-type: none"> Replacement of Conductor New HT/LT Line Augmentation of Transformer Propose New Transformer Replacement of Meter Providing Of HT/LT ABC cable

% Losses in RAPDRP Town





Gol Scheme

– IPDS & DDUGJY

Integrated Power Development Scheme (IPDS)

Scheme

- GOI Scheme
- Scheme cover the town area
- Cover all 4 circle
- DPR Approved Rs.102.22 Crore
- Work completed Rs.102.22 Crore as on 31.08.19
- Achievement = 100 %
- Objective : Strengthening of Distribution network in the Urban areas, Metering of Distribution Transformer / Feeders / Consumers in the Urban areas and IT enablement

Scheme cover...

- Providing of UG & AB Cable
- Provision of 11KV line Augmentation
- Replacement of Electromechanical meter by Static meter
- Providing of Transformer & RMU
- Provision of Solar Panel at UGVCL offices for total 440 KW
- Provision of Fencing to Distribution Transformer
- Replacement of Old Services with Armoured cable Services

Scheme

- GOI Scheme
- Scheme cover the Rural area
- Cover all 4 circle
- DPR Approved Rs.121.54 Crore
- Work completed Rs.121.54 Crore as on 31.08.19
- Achievement = 100 %
- Objective : Strengthening & Augmentation of Distribution Infrastructure in Rural areas included Metering at Dist. Transformers, Feeders and Consumers to ensure 24x7 Power supply.

Scheme cover...

- Provision of Feeder Bifurcation
- Provision of Renovation of 11KV Feeder
- Providing of AB Cable
- Replacement of Electromechanical meter by Static meter
- Providing of New HVDS transformer
- Provision of New 1Ph Connections
- Provision of Sub Station

IPDS & DDUGJY



**Solar PV Plant,
R&C Office : Mehsana
Under IPDS**

**5060 Nos. Residential
Connection to BPL
House Holder
Under DDUGJY**



Industrial Park Electrification

Japanese Park- Vithhlapur

- Electrical Network and Civil Work carried out at /the Total cost of Rs.8.73 Cr.
- Fund Mechanism :
- 40 % GOG (Critical Infrastructure Project)
- 20 % GIDC
- 40 % UGVCL



RCC Cable Trench for UG Network



Compact Transformer Cubical

Forthcoming Projects

GOI Scheme :

Smart Metering for Bopal under IPDS (For UDAY States)

- Nos. of Meters : 38,950 Nos.
- Estimated Cost : Rs. 38.09 Cr.
- DPR Approved by PFC on : 28.03.18
- Govt. funding : Rs. 4.67 Cr as Grant
(Rs. 1200/- per Node)

Industrial Park (GIDC) Underground Electrification

- Woman's Park BOL GIDC
- GIDC Electrification , Ukardi
- GIDC Electrification, Bhagapura
- GIDC Electrification , BOL Phase-II

Procurement



Uttar Gujarat Vij Company Limited, which came into existence after the unbundling of Gujarat Electricity Board in the year 2005, is dedicated to provide uninterrupted power supply to its esteemed consumers. Earlier, during the time of Gujarat Electricity Board, arrangements were made to procure a large quantity of important goods from the head office, but after the corporatisation, procurement of all the necessary goods is handled by each power distribution company itself.

Usually, the field offices send their needs and the procurement tender process is done as per the rules to meet these demands. Critical and non-critical items are sorted out before procurement.

Special care is taken to ensure that there is no shortage of essential items as well as there is no excess stock of goods so as not to make unnecessary investments.

A process for Registration of Vendors and Vendor Development Policy has been created for procurement. A Quality Control Cell has also been set up to check the quality of goods in the procurement process so that only high quality goods can be procured and power distribution can be done in better ways.

The procurement process will be further strengthened in the coming year so that adequate availability of the supplies is ensured and every goal of the government can be achieved on time.

Purchase Process

Registration of Vendor & Vendor Development Policy

Indent of Material from Technical/
User Section

Evaluation of bids in PQC stage

Analysis of Quantity to be
purchased after total availability

Technical Scrutiny of Bids By QCC
section

Tender published at n-Procure Website for
online tender / UGVCL website / News Papers

Opening of Price Bids of Technically
acceptable bidders

Online Submission within 21 days,
Bidder has to submit their bid through
online as well as physical Bid

Approval of Purchase Proposal &
issuance of LOA. On receipt of SD and
Agreement - AT is issued

Critical/Non critical Items

Critical Items :

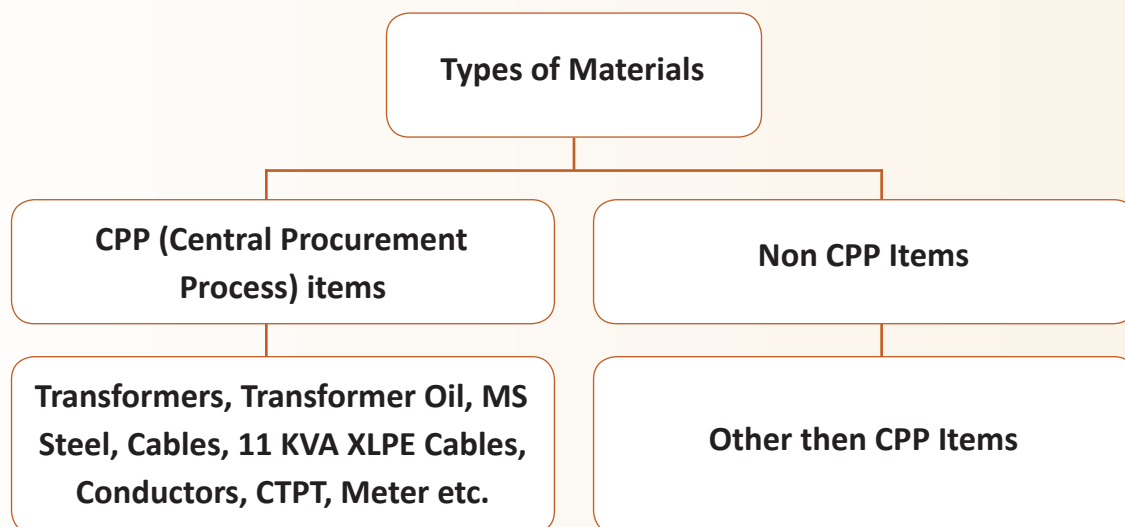
- All types of Meters and its accessories.
- CTPT Units
- Ring type CTs.
- Transformers and Transformer Oil
- 11 KV Insulators & above ratings
- All types of Conductors
- All types of Cables
- LT Breakers and Ring Main Unit

Non- Critical Items :

- More than 74 No. of Items other than above

Year	Purchase Value of Critical Items (In Crs)
2013-14	163
2014-15	405
2015-16	150
2016-17	321
2017-18	215
2018-19	288
2019-20	440
2020-21	240
Total	2222

Purchase Process



- GUVNL rotationally authorize each DISCOM to take responsibility for inviting and finalizing tenders for CPP items on behalf of all DISCOMs.
- Tender for Non-CPP items are invited and finalized at individual DISCOM.

Disposal of Scrap

Year	Scrap Disposed in Amt Rs Cr.
2013-14	3.98
2014-15	7.06
2015-16	0.91
2016-17	0.40
2017-18	0.40
2018-19	20.99
2019-20	7.77
2020-21	10.71
Total	52.22

- Previously, huge quantum of scrap items were lying with different store. Revise proposal for rate of scrap item is approved by Competent Authority in May-18.
- All Scrap items are sold and space constraint for new material reduced.
- Revenue Enhancement
- Reduction In Inventory

Flow of Material



- Each Circle is having one Regional Store Office.
(1) Narol (Sabarmati Circle)
(2) Mehsana (Mehsana Circle)
(3) Palanpur (Palanpur Circle)
(4) Limbhoi (Himatnagar Circle)
- All Division offices are having one Divisional Store Office except where RSO is existing in same Head Quarter.

Quality Control Cell



As per the approval of the competent authority “A Quality Control Cell” is created for UGVCL for maintaining the quality of goods purchased by the SP section and to avoid deviation in the quality of actual goods supplied from the year 2013. Quality Control Cell is primarily concerned that the material performs as desired and that its use delivers benefits too.

Initiative

Web-based portal for performance for Meter, Scrutiny of acceptance report - 39 Nos. lacuna found, Sampling criteria for audit testing is tightened considering the quality concept, Vagarious physical verification of lot received – 5 Nos. lacuna observed, Audit testing of additional items - PVC Rigid Pipe, CI Earthing Plate, SMC LTDB, Plastic Seals, XLPE Private Cables and Printing material, Training for inspectors (Theoretical + Practical) at ERDA, Vadodara is finalized for up to mark know-how

Challenges

- Balancing with quality and material flow
- No dedicated inspection team
- Limitation of Inspectors
- Price Vs. Quality
- Hurdles/Issue raised by Supplier

Roads Ahead

- Web-based Portal for the performance of all materials
- In-house material testing on PPP model
- Regular training to inspectors
- Introduction of sustainability indices
- Enhancement of production process of the supplier
- Discussion Forum of stack holders.

Function of QC Cell

Deputation of inspector for material inspection

Scrutiny of inspection report

Sampling of Material for Audit testing

Testing of Material at NABL Lab

If the material fails, the whole lot is considered as rejected.

The penalty is decided by the Committee.

Year-wise Audit testing carried out at ERDA

Year	ERDA Material						ERDA Transformer					
	No. Of Lot			No. Of Sample			No. Of Lot			No. Of Sample		
	Pass	Fail	Total	Pass	Fail	Total	Pass	Fail	Total	Pass	Fail	Total
2015	181	37	218	2872	288	3160	214	16	230	858	17	875
2016	188	17	205	2170	112	2282	145	11	156	488	12	500
2017	54	10	64	93	11	104	51	1	52	51	1	52
2018	175	9	184	208	9	217	104	2	106	105	2	107
2019	346	4	350	351	5	356	302	11	313	302	11	313
2020	304	6	310	327	6	333	253	8	261	253	8	261
Total	1248	83	1331	6021	431	6452	1069	49	1118	2057	51	2108

Year-wise Audit testing carried out at EQDC, ATIRA & Other Lab

Year	EQDC Cable					
	No. Of Lot			No. Of Sample		
	Pass	Fail	Total	Pass	Fail	Total
2015	112	6	118	924	8	932
2016	66	5	71	538	5	543
2017	39	1	40	39	1	40
2018	61	5	66	61	5	66
2019	223	13	236	223	13	236
2020	135	5	140	137	6	143
Total	636	35	671	1922	38	1960

Year	ATIRA, Hi-Tech lab (SBT) & Other LAB					
	No. Of Lot			No. Of Sample		
	Pass	Fail	Total	Pass	Fail	Total
2020	55	9	64	1338	17	1355
Total	55	9*	64	1338	17	1355

* - Out of 9 failure 7 nos. of printing item accepted with penalty.

EMC & IT Section



An IT Section plays an important role in the functioning of any company. The IT Section of the Uttar Gujarat Vij Company Limited is actively involved in serving the esteemed consumers of the company in various ways. The Section has provided GSM/GPRS Modem to all the 5000 HT consumers for enabling automatic meter reading without any human intervention.

Web-Based Energy Accounting application for AT&C loss calculation has been used since 2008, which enables calculation of correct losses without any manual efforts.

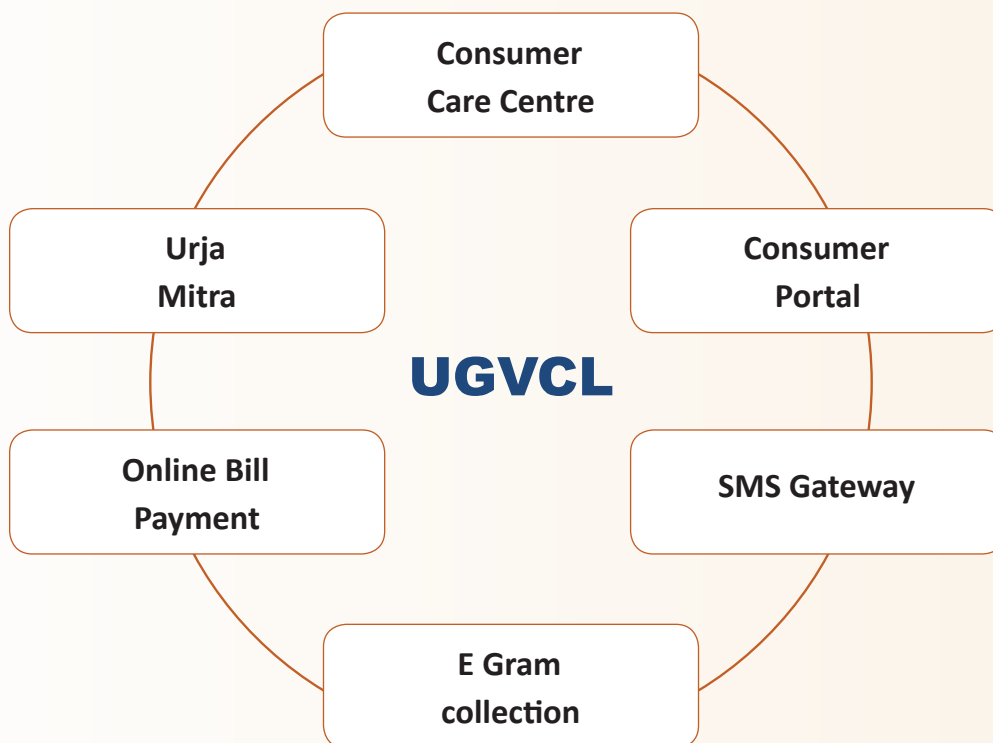
For theft prone application

whole consumer Master and billing transaction data are being analysed for the last 14 years.

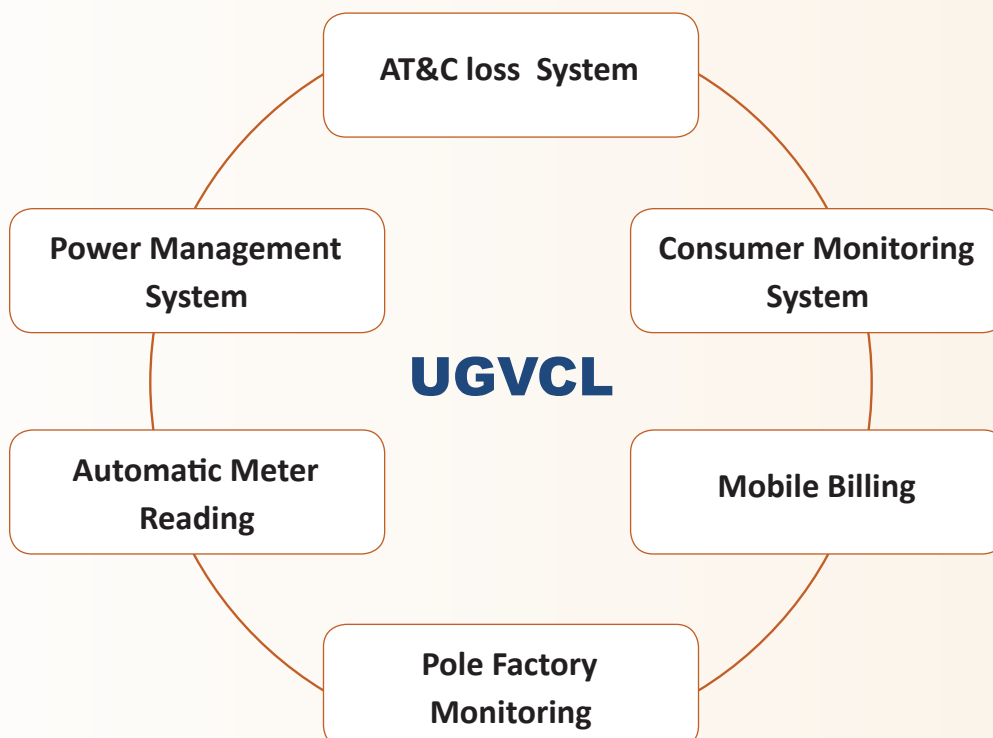
To provide quick bill payment solutions to the consumers, an online payment facility for HT/LT consumers is being used since 2008. E-Payment facilities with SMS and e-mail alert facilities are also being used.

Thus, the IT Section of the Company is playing an important role and helping the Company employees in the tasks of right from meter reading to payment and grievance resolution, for ensuring prompt and better services to the esteemed consumers of the Company.

Consumer Oriented IT Applications



Utility IT Applications



Utility ERP Implementation For Day to Day working

**Human Resource Management
System**

**CRM-Consumer Relationship
Management**

Payroll

**EAM-Enterprise Asset
Management**

Accounts Payable & Receivable

Inventory For Material

HT & LT Billing

Purchase & Project

Fixed assets, General Ledger

Quality Lab

Benefit Of IT Applications

Utility

- Billing Analysis
- Feeder & DTC wise loss Analysis
- Faulty Meter Analysis
- Remote Meter Reading
- Daily Distribution activity Analysis
- Saving of Time & Pin Point Hammering

Consumer

- Online Bill Payment
- E-gram Cash Collection
- Single window Consumer Care Centre
- Improve Power Reliability
- Information of Outage in advance
- Company information on Website

SMS Service to Consumer

SMS for

- Complaint Booked / Resolved
- Schedule/ Unscheduled Outage
- Energy Bill Generation
- Energy Bill Payment
- New Connection Application Registration, FQ issued, work completion etc
- Online Payment on consumer Portal



Consumer Portal

Consumer can..

- Apply for New connection
- Apply for load change
- Payment facility
- Complaint Booking & Tracking
- Online Bill view
- Online Payment through Net banking, Credit card, Debit card etc



Accounts & Finance



For any organisation, its accounting operations and financial condition are essential for survival. Electricity distribution is the main business of Uttar Gujarat Vij Company Limited. Effective steps are being taken to collect revenue from more than 38 lakh esteemed consumers along with fulfilling the important responsibility of continuous distribution of electricity without interruption.

In a situation where the number of consumers is increasing significantly every year, the revenue is also increasing due to higher power consumption. UGVCL is doing a very good job of delivering and collecting electricity bills from the consumers in time. The target of 100% recovery of the assessment is

achieved regularly, the total turnover of the company has reached Rs. 15,000 crores.

- The Lowest Debit arrears as on 31.03.21 i.e. 5.19 % among four Discom of Gujarat
- The Lowest PDC arrears as on 31.03.21 i.e. Rs. 74.14 Cr among four DISCOM of Gujarat
- “NIL” Comments from C&AG Office on the Accounts of the Company

The Accounts Department is working successfully with proper coordination with the Technical Department of the company, due to which the company has been honoured with national-level awards. It aims to continue its successful operations in the coming accounting year.

Category wise Consumers

Sr. No.	Category	31.03.2015	31.03.2016	31.03.2017	31.03.2018	31.03.2019	31.03.2020	31.03.2021
1	Residential	2432337	2520821	2612174	2672013	2764417	2849251	2926307
2	Industrial							
	LT	295632	315654	335774	350530	366645	386339	407171
	HT	2949	3229	3511	3755	4153	4486	4827
	Total Industrial	298581	318883	339285	354285	370798	390825	411998
3	Agriculture	283432	308607	332618	347746	364969	380956	398472
4	Others	47961	51894	55777	57938	61801	64305	66354
5	Total	3360892	3519088	3679139	3786267	3849758	3685337	3803131

% Consumer Growth

Sr. No.	Category	% Growth 31.03.16	% Growth 31.03.17	% Growth 31.03.18	% Growth 31.03.19	% Growth 31.03.20	% Growth 31.03.21
1	Residential	3.64	3.62	2.29	3.34	3.06	2.70
2	Industrial						
	LT	6.77	6.37	4.39	4.39	5.37	1.05
	HT	9.49	8.73	6.95	9.58	8.02	1.08
3	Agriculture	8.88	7.78	4.55	4.72	4.38	1.05
4	Others	8.20	7.48	3.87	6.25	4.05	1.03
5	Total	4.50	4.36	2.76	1.64	3.42	1.03

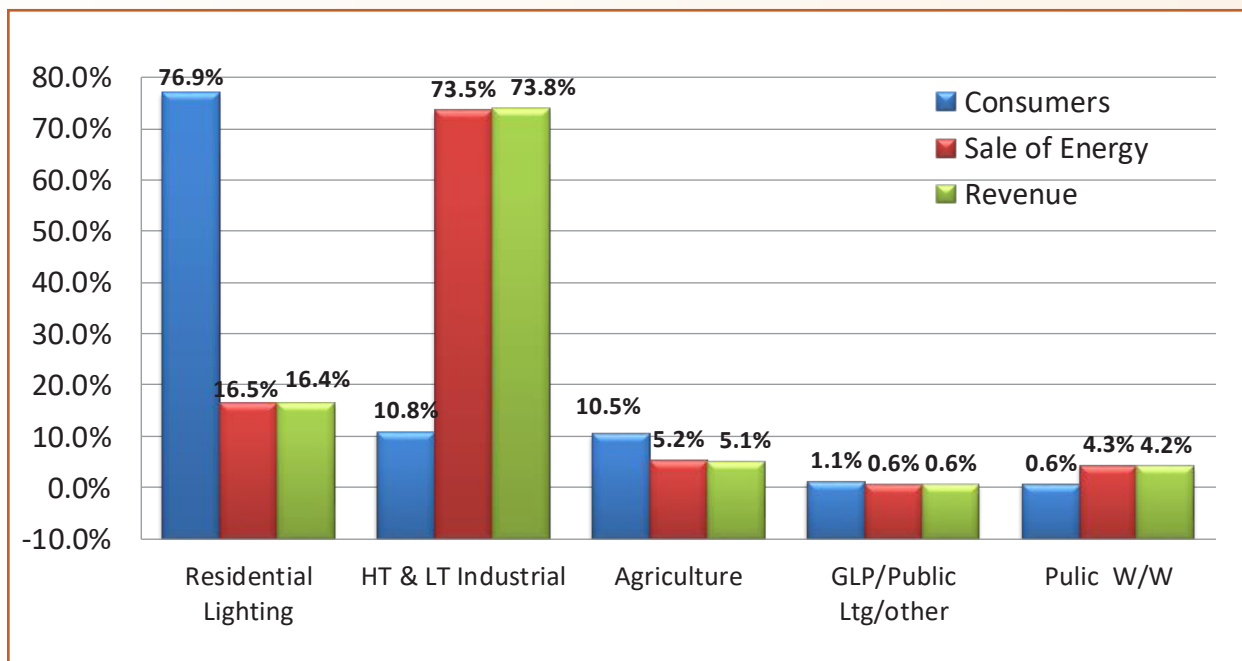
Collection in Crores.

Sr. No.	Year	UGVCL Window Collection		E-Payment		Other		Total
		Rs/-	%	Rs/-	%	Rs/-	%	Rs/-
1	2014-15	3570.03	60.94	1413.25	24.12	875.43	14.94	5858.71
2	2015-16	4030.77	60.83	1632.64	24.64	936.19	14.13	6626.60
3	2016-17	4767.42	64.96	1791.95	24.42	779.23	10.62	7338.60
4	2017-18	5293.81	63.53	2276.33	27.32	762.93	9.16	8333.07
5	2018-19	3790.21	40.02	5256.34	55.50	424.22	4.48	9470.77
6	2019-20	2474.84	24.22	7363.69	72.07	378.58	3.71	10217.11
7	2020-21	2297.81	23.52	7223.87	73.94	247.75	2.54	9769.43

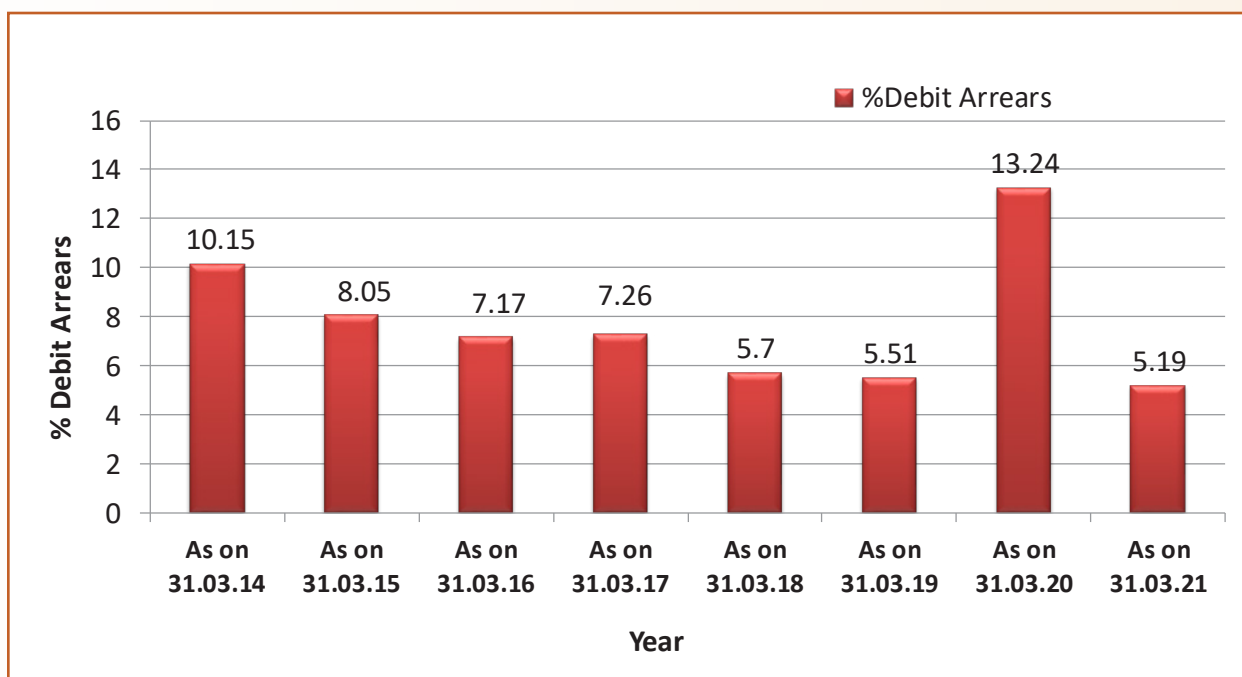
Consumption Pattern

Category	FY: 2006-07				FY: 2020-21			
	Consumers (Nos.)	% Share	Consumption (Mus)	% Share	Consumers (Nos.)	% Share	Consumption (Mus)	% Share
Residential	1569817	77.60	828	8.63	2926307	76.84	2658.04	11.29
LT Industrial	27836	1.38	589	8.72	412362	10.83	1908.50	8.11
HT Ind.	1435	0.07	1810	18.87	4747	0.12	7301.78	31.02
Agricultural	207577	10.26	5700	59.44	398522	10.46	10004.73	42.51
Water Works	10419	0.52	366	3.82	23620	0.62	863.77	3.67
GLP and Public Lighting	205942	10.18	279	2.91	42764	1.12	84.94	0.36
Total Consumers	2023027	100	9590	100	3808322	100	23536.14	100

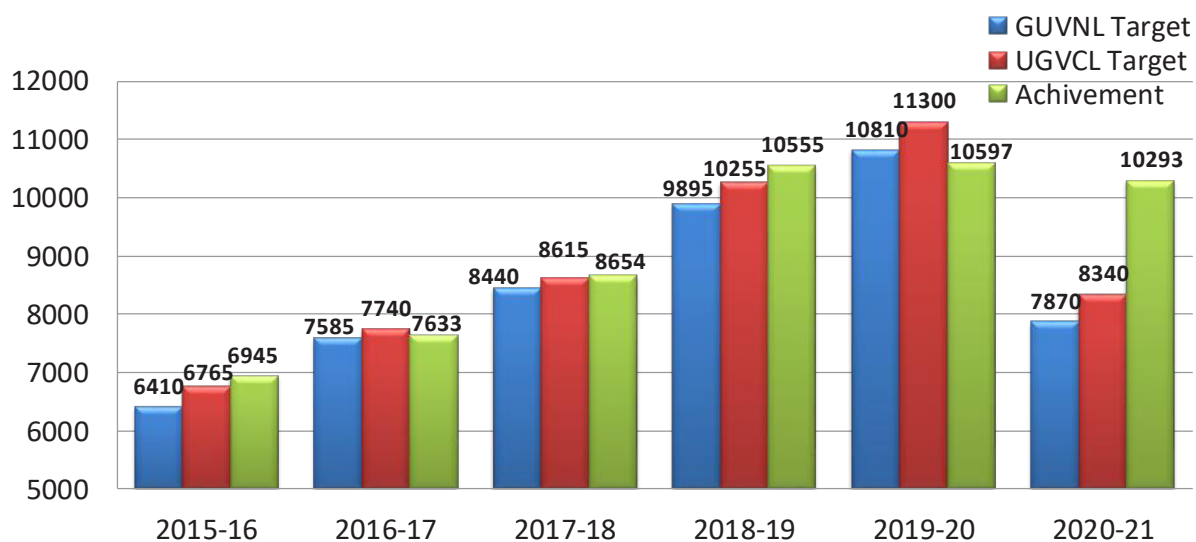
% Share : Category wise Consumer, Energy sale & Revenue (2020-21)



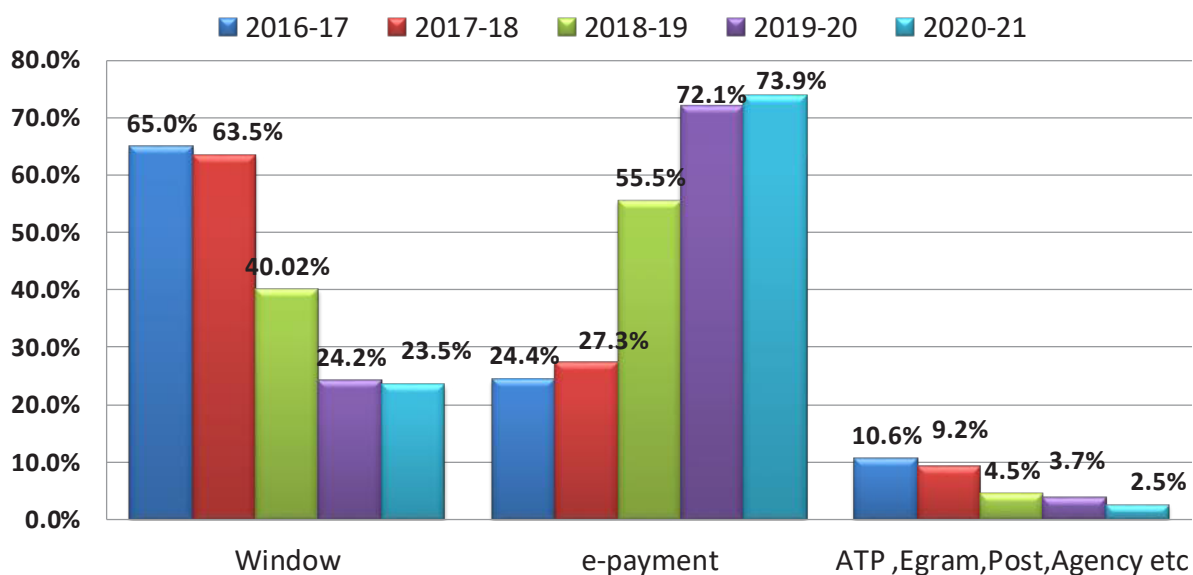
% Debit Arrears



Collection Achievement (In Cr.)



Mode of Energy Bill Collection from 2016-17 to 2020-21



Financial Data

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Total Income (in Cr.)	9,310.88	10,270.83	12,356.21	13,044.94	12,945.03
Total Expenses (in Cr.)	9,223.57	10,155.13	12,304.54	12,915.59	12,811.39
Net Profit (Before Tax) (in Cr.)	87.31	115.70	51.67	129.35	133.64
Net Profit (After Tax) (in Cr.)	66.55	101.32	36.62	58.06	74.29
Cost to Serve (Rs/Unit)	4.82	4.87	5.35	5.62	5.44
Average Revenue Realization Income (Rs/Unit)	4.86	4.93	5.37	5.67	5.50
ACS-ARR Gap (Rs /Unit)	-0.04	-0.06	-0.02	-0.05	-0.06

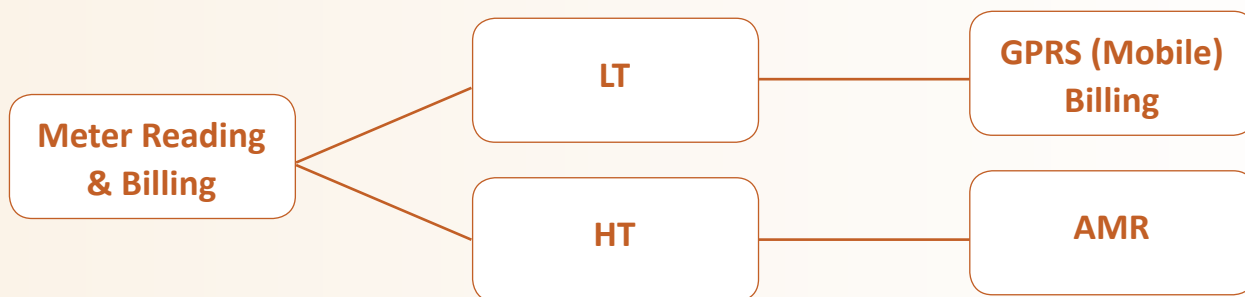
Best Practices

- Timely starting of Billing for New Consumers.
- Timely Billing within Schedule of Billing Programme.
- Consumer wise Monitoring for arrears recovery.
- Arranging Lok Adalat for disposal & recovery arrears from PDC Consumers.
- Various Level of Audits i.e. Internal Audit, Statutory Audit, Cost Audit, Tax Audit, Secretarial Audit, Audit for Electricity Duty, Audit by GERC, Audit by C&AG.

Revenue Maximization & Cost Reduction

- Cost-reflective tariffs
- Timely subsidy by State Govt.
- Automatic pass-through of quarterly increase in fuel & power purchase cost
- 100% collection efficiency
- Rationalization of power purchase cost entailing huge savings

Meter reading and Billing



Note :-

In case of **LT Billing**, only meter reading is taken by Meter readers and punched in the billing system. Then after, Billing system calculates the bill amount. Accordingly eliminates the chances of Manual Error while billing.

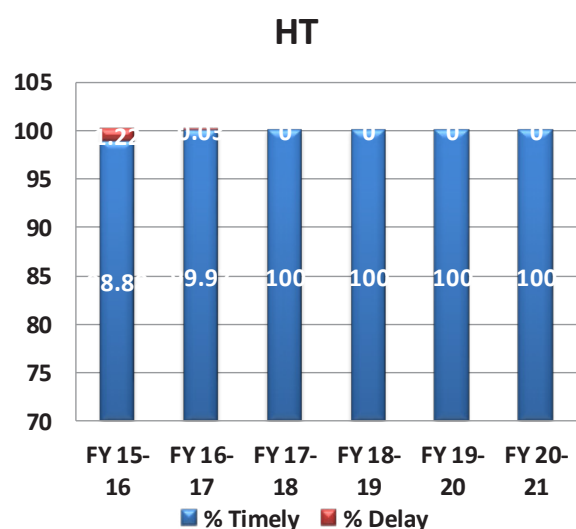
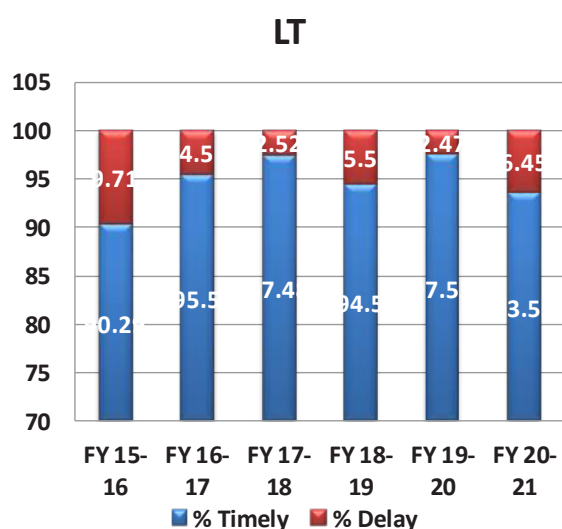
In case of **HT Billing**, the billing is done through AMR by which even meter reading is done by system.

Various Billing Cycles used in billing

Monthly :- 10 HP and above, Demand based consumers, HT etc.

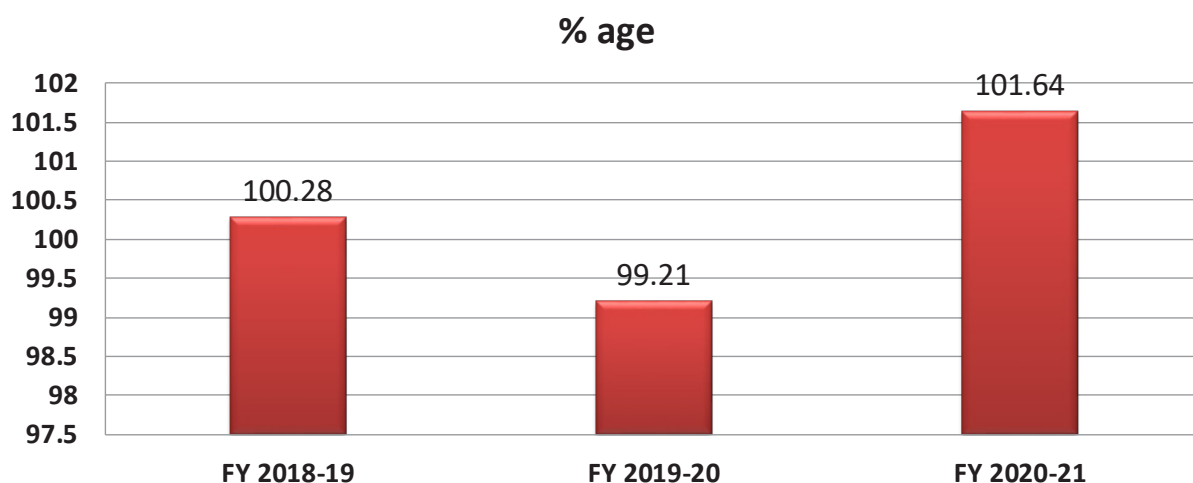
Bi-Monthly :- Below 10 HP, Residential, Agriculture etc.

Billing Efficiency (% age)



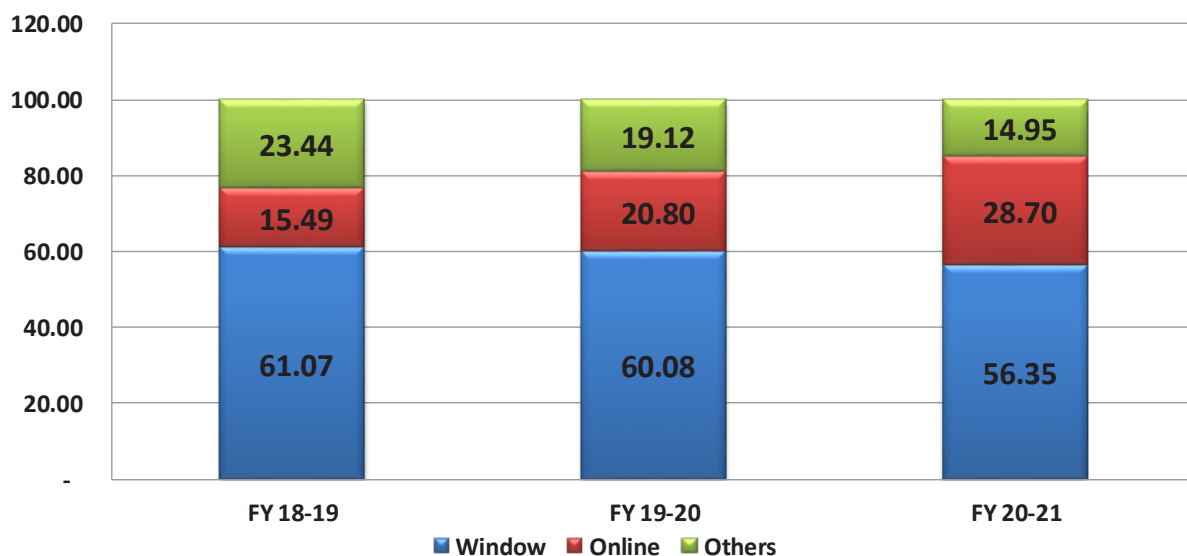
During the FY 2020-21, on account of prevailing COVID-19 Pandemic situation, the billing activity got hampered

Collection Efficiency (% age)



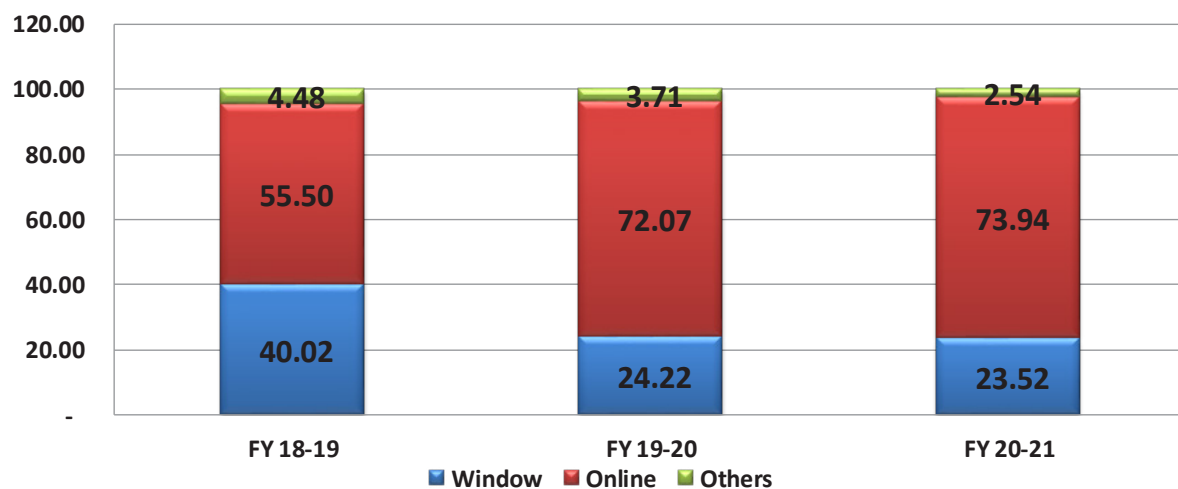
During the FY 2019-20, Govt. of Gujarat has granted extension for payment of energy dues for the month of March and April-20 without DPC upto 30-May-20 which got resulted in reduced collection efficiency for the FY 2019-20

Mode of Energy bills collection - % Count



Others include ATP Kiosk, Pvt. Agencies, E-Gram, Post offices etc.

Mode of Energy bills collection - % Rupees



Others include ATP Kiosk, Pvt. Agencies, E-Gram, Post offices etc.

HR- Section

HR is a strategic partner of the organisation today. A company's culture starts taking shape from the day it comes into existence and HR plays a vital role in the creation of an environment where employees are driven by it.

Nowadays, role of the Human Resource Department has gone from the traditional 'hire and fire' to an in-depth position,



focusing on another aspects of the company, like overall growth of the business i.e. Team work, organisation development and individual career progress of the employee as well. Human resources professionals are the lifeblood of the company, because their job is to ensure that the business gets the success through its employees. In other words, the human resource department should be given equal importance with other departments to achieve a high return on the business investment through its people.

Uttar Gujarat Vij Company Limited considers its employees as an invaluable asset. It firmly believes that the company can make steady progress only through its collaborative efforts with the employees. The employees are placed according to the company needs, but while considering the convenience of the employee, so that they can work more efficiently amidst the favorable environment. Employees are honoured by constantly encouraging them to do their work more efficiently. The family members of the employees are also considered as family members of the company and they are honoured for their success in the field of education, sports as well as profession. Regular

planning of medical facilities as well as sports and cultural activities are carried out to keep the employees physically and mentally healthy. The company focuses on buildings state-of-the-art facilities to provide a healthy working environment for the employees.

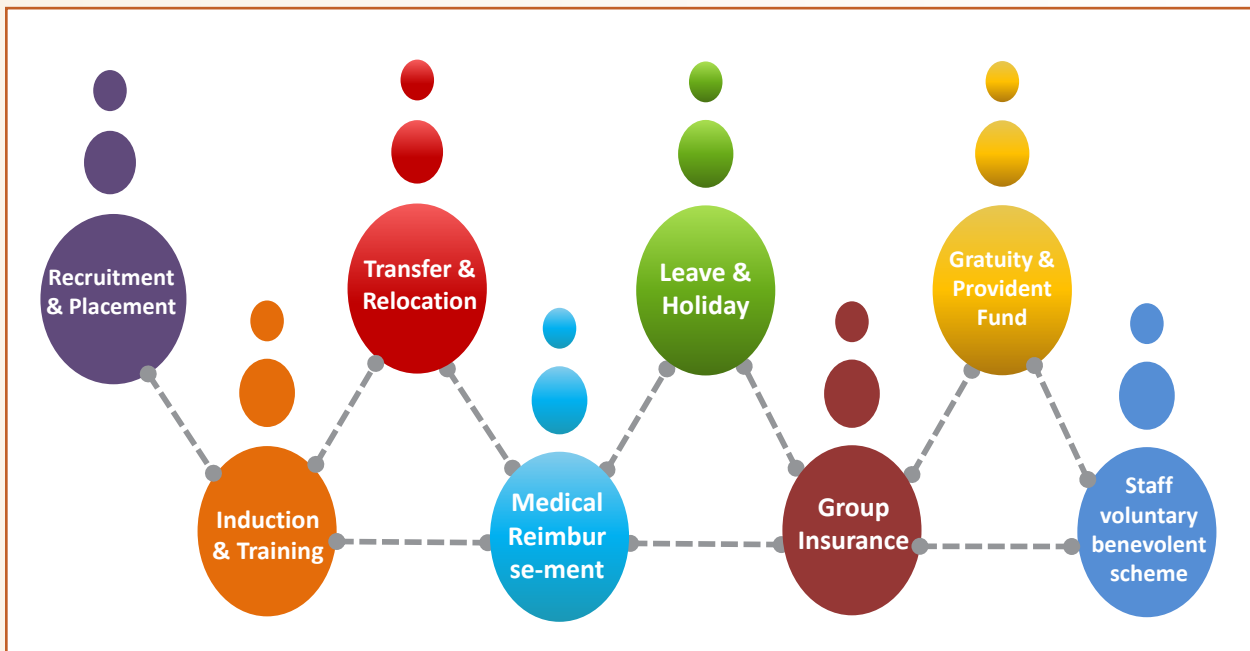
In the coming year also, the HR Department will strive to maintain its invaluable assets and continue to contribute towards the progress of the company by providing a conducive working environment for its employees.

HR: Objective / Essence

- Focus on “People first” Initiatives
- Creating Positive environment within the Organization
- Assisting employees for work performance through Training & Development
- Making a Good Team Work to achieve the results of the Organization



HR Functions



HR : Career Progression



- Junior Engineer → Deputy Engineer → Executive Engineer → Supdt.Engineer → Addl. Chief Engineer → Chief Engineer.
- Junior Assistant → Senior Assistant → Dy.S.A → Supdt. Account → Account Officer → Dy. Controller of Account → Controller of Account → Chief Finance Manager → General Manager (Finance).
- Junior Assistant → Senior Assistant → Dy.S.Est → Executive HR → Assistant Secretary → IRP/ PO → Dy.General Manager → Addl. General Manager → General Manager (HR).
- Electrical Assistant → Assistant Line Man → Line Man → Line Inspector.

HR : Employee Strength

Class	Sanctioned	Filled up	Vacancy	% Vacancy
I	363	351	12	3.31
II	552	499	53	9.60
III	4272	4153	119	2.79
IV	4209	4107	102	2.42
Total	9396	9110	286	3.04

Class	Sanctioned	Filled up	Vacancy	% Vacancy
Technical	5551	5395	156	2.81
Non- Tech	3845	3715	130	3.38
Total	9396	9110	286	3.04

HR : Induction & Training

Induction Training :

- All the entry level employees has to given Induction training for better knowing of organization, its practice and day to day working .
- To establish the framework for good employee involvement.
- Enhance the knowledge and skills of employees

Regular Training :

- Outside Workshops / Training programs for regular employees for development of New Subject / Scheme / Projects etc.
- Per Person Yearly 4 Man days of all Employees for training impart- Achieved 93% in FY 2017-18

Infrastructure for Training :

- **GETRI Vadodara:** An autonomous training and research Institute promoted by GUVNL.
- **GEKC:** Gujarat Energy Knowledge Centre located at Mehsana & Sabarmati facilitates various training programs for the employees.

Civil Section



In an organisation consisting primarily of electrical engineers, a team of Civil engineers plays a vital role alongside the mainstream.

Since the time of erstwhile Gujarat Electricity Board (GEB) till the unbundling & formation of Uttar Gujarat Viji Company Limited (UGVCL), one of the 04 Distribution Companies (DISCOMs), Civil section has taken gradual steps onwards.

At present, the members of Civil section form a two part team, one of which

overlooking the work of construction, maintenance/renovation of existing buildings, modular furniture, land acquisitions, hiring of office premises & other civil related multifaceted projects etc. while the second team overlooking the procurement of PSC poles & other activities like testing, quality assurance etc. regarding PSC poles.

At the time of GEB, most of the civil infrastructure like office building, furniture etc, were either on rent-basis or very old & dilapidated. This changed

with the inception of UGVCL. Since then, we have constructed about 75 new offices with a modern look & with good facilities for employees & consumers, such as a new wing of R&C office, division offices, division store buildings, sub division offices, development of various RSO campuses etc.

We have renovated more than 90% of existing company owned old office buildings.

For the first time, we have provided & commissioned new modular furniture in around 86 new as well as renovated office buildings.

We have executed several underground cable laying projects majorly under Sabarmati circle area and more under pipeline.

We have constructed new Type-3 & Type-4 residential quarters at Palanpur, Sabarmati and Himatnagar for our employees.

Now, with a view to preserve nature & minimize our carbon footprint we are leaning towards green construction techniques & recycling. Recently, we have commissioned UGVCL's 1st water harvesting system at Sidhpur division office, under Palanpur circle & are considering another large scale rain water harvesting & ground water table recharge system at R & C office campus at Mehsana. We would like to plan new offices of energy efficient, greenhouse buildings including a water harvesting system.

On the other front, in the old times

whilst GEB, the manufacturing of PSC poles was done on "Job-work" basis, now, the PSC poles are procured under "Annual Rate Contract" (ARC) from various registered 8M & 10M PSC pole vendors.

Against around 9 nos. of 8M PSC pole suppliers in 2006-07, we have raised 23 PSC pole suppliers at present by encouraging & developing new PSC pole vendors across UGVCL.

Procurement on PSC poles since 2005-06 has increased several fold with current annual procurement reaching approximately 2,30,000 in 2020-21.

We account for procurement, testing & billing of collectively 8M & 10M PSC poles amounting approximately to Rs.46 Crores annually.

We, under the very able guidance of senior civil engineers, successfully completed a first of its kind pilot project of procurement & commissioning of SPUN poles. The 200 spun poles procured under the said project can be seen in the vicinity of S P Ring road, Ahmedabad, making UGVCL the only DISCOM under GUVNL to have commissioned spun poles.

We are striving once again to revive the spun pole project under the guidance of GUVNL and bring a new era of concrete poles to Gujarat.

Civil section has always been an active & integral part of UGVCL's success story and shall always strive for betterment in future.

Civil Department : Function

- Construction/Renovation of office premises.
- Provision of Modular furniture
- Maintenance of UGVCL office buildings
- Ensuring Cleanliness of R&C office
- Hiring of Premises for office
- Assisting in underground electrical networking
- HBA Proposal scrutiny, certification & site verification

Initiative taken by Civil Section

- New land acquired / finalized : Ambli, Tragad, Narol RSO
- 4 nos. of new building constructed: Bavla (I) sdn, Bhiloda Dn, Kanodar sdn, Consumer care center-Viramgam
- 6 nos. of new building approved and under construction: Patan City-2 & Rural sdn, Sami sdn, Palanpur CO & DO, Deesa-1 & 2 DO, Dantiwada sdn, Dhansura sdn
- Renovation / maintenance / Enhancement work carried out in 10 nos. of various office buildings
- Renovation / maintenance / Enhancement work under progress in 7 nos. of various office buildings
- 1 no. of Turnkey based Underground Power Distribution network project carried out: Defence Parks, Ukardi
- 2 nos. of Turnkey based Underground Power Distribution network project under progress: BOL GIDC-II, Sanand & Bhagapura GIDC
- 3 nos. of Newly approved office buildings hired: Santej sdn, Vij Suvidha Kendra-Shankheshwar & Poshina section office

Civil : Construction of New Building



**Construction of 61 nos.
New office Premises & 30
nos. of Residential quarter
in last 10 year**

**Provided Modular
Furniture in 83 offices**



Civil : Renovated Offices



**Renovation of 68 office
building In 10 Year**



UGVCL: Various Issues and Challenges

- Agriculture consumption is about 39%.
- Water ground level is very low.
- Old Over head Network.
- Land Problem for laying of overhead network.
- Sustain the present level of T&D losses, TT/SF Index, TC Failure etc.
- Nearby Torrent Power area in Ahmedabad & difficulty to meet exception of consumer in overhead network.
- Prompt consumer service in Rural area.
- Need of Professional Staff to overcome the issues of various Taxes, Ind-AS and various Audits etc.

Working Towards Integrated Socio-economic development of North Gujarat through urja-shakti

Committed to supply continuous, reliable and quality power

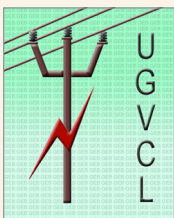
GOLD SHIELD FOR EXCELLENT PERFORMANCE IN POWER DISTRIBUTION

UGVCL's Strength

- 100% Rural Electrification
- Lowest Non Agriculture AT&C Losses
- Segregation of Agriculture and Non Agriculture Feeder for 24x7 Power Supply
- Less LT to HT ratio of 0.68
- Lowest TT/SF Index
- Regular Training to increase performance
- The first DISCOM in Gujarat to complete implementation of "Jyotigram yojna" in 4618 villages to provide 24 HRS three phase power supply, which is first innovative scheme launched by state in country and appreciated by Planning Commission of India.
- The first company in India to prepare Special Design Transformer (SDT) approved by ERDA to provide 24 Hours Power Supply to farm houses and dispersed residential premises.
- First public sector DISCOM of India with installation of 27000 nos of IS 16444 Smart meters having features of prepaid facility with remote operation through Meter Data Management System for Naroda urban area.



Committed to improve the quality of life through uninterrupted power supply



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