

**Business Plan
for
MYT Control Period
FY 2022-23 to FY 2024-25**

Submitted to:

**Joint Electricity Regulatory Commission for
the State of Goa & Union Territories**

Submitted By:

DNH Power Distribution Corporation LTD.



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List of Abbreviations

Sr. No	Abbreviations	Descriptions
1.	A&G	Administrative and General/Others
2.	AC	Auxiliary Consumption
3.	APR	Annual Performance Review
4.	ARR	Aggregate Revenue Requirement
5.	AS	Accounting Standard
6.	CAGR	Compound Annual Growth Rate
7.	CAPEX	Capital Expenditure
8.	CERC	Central Electricity Regulatory Commission
9.	CGS	Central Generating Station
10.	CoS	Cost of Supply/ Service
11.	CPPs	Captive Power Plants
12.	Crs	Crores
13.	CWIP	Capital Work in Progress
14.	DF	Distribution Franchisee
15.	Discom	Distribution Companies
16.	DPS	Delayed Payment Surcharge
17.	DS	Domestic Service
18.	DSM	Demand Side Management
19.	DTC	Distribution Transformer
20.	EA/The Act	The Electricity Act 2003
21.	F&A	Finance & Accounts
22.	FY	Financial Year
23.	GFA	Gross Fixed Assets
24.	G.O.	Government Order
25.	Gol	Government of India
26.	HR	Human Resource
27.	HRA	House Rent Allowance
28.	HT	High Tension
29.	KV	Kilo Volt
30.	kVA	Kilo Volt Ampere
31.	kVAh	Kilo Volt Ampere Hour
32.	kW	Kilo Watt
33.	kWh	Kilo Watt Hour
34.	LF	Load Factor
35.	LT	Low Tension
36.	MD	Maximum Demand
37.	MOD	Merit Order Despatch
38.	MoP	Ministry of Power
39.	MOU	Memorandum of Understanding
40.	MU	Million Units (Million kWh)



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Sr. No	Abbreviations	Descriptions
41.	MVA	Mega Volt Ampere
42.	MW	Mega Watt
43.	MYT	Multi Year Tariff
44.	NEP	National Electricity Policy
45.	NTP	National Tariff Policy
46.	NTPC	National Thermal Power Corporation
47.	O&M	Operation & Maintenance
48.	PAF	Plant Availability Factor
49.	PF	Provident Fund
50.	PFC	Power finance Corporation
51.	PLF	Plant Load Factor
52.	PLR	Prime Lending Rate
53.	PPA	Power Purchase Agreement
54.	PSD	Power Service Division
55.	REC	Rural Electrification Corporation
56.	R&M	Repair and Maintenance
57.	ROE	Return on Equity
58.	RPO	Renewable Purchase Obligation
59.	Rs	Rupees
60.	SBI	State Bank of India
61.	SLM	Straight Line Method
62.	SHR	Station Heat Rate
63.	T&D	Transmission and Distribution
64.	w.e.f	With effect from
65.	Y-o-Y	Year on Year



Chapter 1: Introduction

1 Background

Dadra and Nagar Haveli is a district in the Union Territory of Dadra and Nagar Haveli and Daman and Diu. It is situated in the western part of the country and is surrounded by the states of Maharashtra in the south and Gujarat in the north. The total area of territory is 491 sq. kms. There are 72 villages and the capital of territory is Silvassa. The total population as per 2011 census is 3,42,853.

This territory is having 62% tribal population and has wide range of untapped natural resources. The climate of this territory is medium and temperature range is between 25° to 40° C. The monsoon season ranges from June to October, winter season ranges from November to February and summer season from March to May.

There are many tourists' places in this territory. At the same time, this is a highly developed industrial area. The liberalized policies of central government has benefited very much in all round development of territory.

The power demand of this territory is met from the central sector Generating Stations of Western Region as there is no power generation in this territory. After liberation, the power was fed to this territory through 11 KV feeder of GEB and the demand was up to 500 KVA. Now due to rapid development of the territory the demand of power increased tremendously. The present average demand of this territory is 760 MW to 780 MW and peak demand is 888 MW. Due to rapid industrialization, the power demand is increasing day by day. The U.T. Dadra and Nagar Haveli has already achieved the goal of 100 % electrification by providing electricity to all villages of the territory and also provided 100 % metering to all the categories of the consumers . The electronic tri-vector meters have been provided to all the H.T. and E.H.T. consumers of the territory.

The key duties being discharged by DNHPDCL are:

- Laying and operating of such electric line, sub-station and electrical plant that is primarily maintained for the purpose of distributing electricity in the area of supply of DNHPDCL, notwithstanding that such line, sub-station or electrical plant are high pressure cables or overhead lines or associated with such high pressure cables or overhead lines; or used incidentally for the purpose of transmitting electricity for others, in accordance with Electricity Act 2003 or the Rules framed there under.
- Arranging, in-coordination with the Generating Company(ies) operating in or outside the State, for the supply of electricity required within the State and for the distribution of the same in the most economical and efficient manner;
- Supplying electricity, as soon as practicable to any person requiring such supply, within its competency to do so under the said Act;
- Preparing and carrying out schemes for distribution and generally for promoting the use of electricity within the State.

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The present distribution system of DNHPDCL consists of 36.88 circuit km of 220 kV double circuit (D/C) lines, 279.90 km of 66 kV D/C lines, 833.70 circuit km of 11 kV lines along with 1102 distribution transformers.

At present, the UT of Dadra & Nagar Haveli gets power from 400/220 kV Substation of PGCIL Vapi, 400/200 kV Kala Substation of PGCIL (DNH).

The power demand is primarily dependent on the HT and LT industrial consumers contributing approximately 97% of the total sales. Considering the increase in demand from large industries, the demand is likely to increase around 6800 MUs by the end of FY 2022-23. In view of the huge power requirements, DNHPDCL had proposed a number of schemes to be implemented during the coming years for strengthening and augmentation of the transmission and distribution system in the territory.

DNHPDCL has total sub-transmission capacity of 1320 MVA, including 520 MVA in Kharadpada sub-station, 420 MVA Khadoli sub-station and 320 MVA Vaghchipa sub-station. Total installed capacity at 66/11 kV sub-stations are 782 MVA. DNHPDCL is continuously striving for increasing its distribution capacity on account of increasing electricity demand from the HT/EHT consumers.

2 Objective of Business Plan

The Joint Electricity Regulatory Commission for the State of Goa and Union Territories, In exercise of the powers conferred on it by sub-Section (2) of Section 181 read with Section 36, Section 39, Section 40, Section 41, Section 51, Section 61, Section 62, Section 63, Section 64, Section 65 and Section 86 of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in this behalf, has issued the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year) Regulations, 2021, hereinafter referred to as "MYT Regulations".

As per the Regulations, the Distribution Licensee shall file Business Plan, for Control Period of three financial years from April 1, 2022 to March 31, 2025, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets before the Hon'ble Commission as part of the Tariff Filing before the beginning of the Control Period.

Accordingly, the DNHPDCL is hereby filing the Business Plan for the Control Period (FY 2022-23 to FY 2024-25) based on the available data for the FY 2020-21 and data of previous years.

DNHPDCL has prepared the Business Plan taking cognizance of the existing internal factors and external business environment affecting the business. DNHPDCL submits that the Business Plan being a dynamic document may need to be updated at periodic intervals taking into account the changes in the internal and external environment and these changes would be intimated to the Hon'ble Commission from time to time.



Chapter 2: About the DNH Power Distribution Corporation Limited

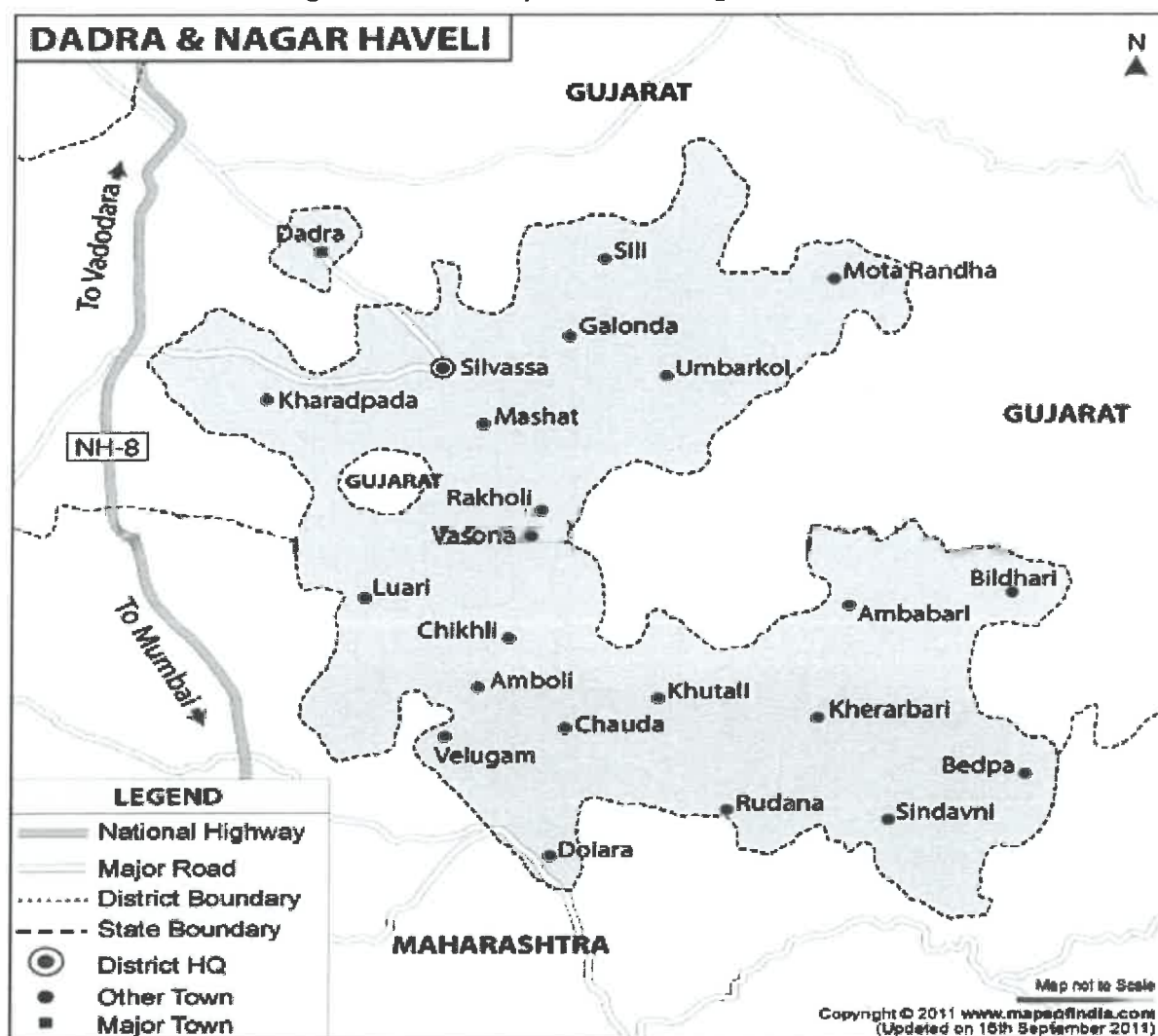
1 Mission of DNH Power Distribution Corporation Limited

Uninterrupted, Reliable and Quality Power Supply to all our Consumers on competitive rates

2 Area Served

Dadra & Nagar Haveli District comprises of an area of 491 sq. Kms.

Figure 1: District map of Dadra & Nagar Haveli



3 Generation Transmission & Distribution

DNHPDCL is mainly engaged in the procurement and distribution of electricity to the various categories of consumers. The bulk power supply is drawn from the Central Sector Power Stations in Western Region through PGCIL Grid. At present, the UT of Dadra & Nagar Haveli gets power from 400/220 kV PGCIL Vapi, 400/200 kV Kala of PGCIL (DNH).

The Department is mainly engaged in the work of construction, operation and maintenance of power distribution system which caters to power demand of various categories of consumers.

Table 1: Transmission and Distribution System

Sr.No.	Description of Line	Length in Circuit (in Kms)
01.	220 KV Line (D/C)	36.88
02.	66 KV Line	279.90
03.	11 KV Line	833.70
04.	L.T Line	1778.50
05.	Distribution Transformer Center	1102 Nos.

Table 2: Existing 66 kV Sub - Stations

Sr.No.	Sub – Station	Capacity
01.	66/11KV Amlu Sub-Station	: 3 x 15 + 2 X 20= 85 MVA
02.	66/11KV Masat Sub-Station	: 3 x 15 + 2 x 20 = 85 MVA
03.	66/11KV Rakholi Sub-Station	: 4 x 20 = 80 MVA
04.	66/11 KV Khadoli Sub-Station	: 2X20 + 10 + 3 x 15 = 95 MVA
05.	66/11KV Dadra Sub-Station	: 5 x 20 = 100 MVA
06.	66/11KV Kharadpada Sub-Station	: 2 x 16 + 15 = 47 MVA
07.	66/11 KV Silli Sub-Station	: 2 x 15 + 1 x 20 = 50 MVA
08.	66/11KV Khanvel Sub-Station	: 2 x15 = 30 MVA
09.	66/11KV Athal Sub-station	: 3 x 20 = 60 MVA
10.	66/11KV Waghdhara Sub-station	: 1 x 15 + 1 x 20 = 35 MVA
11.	66/11KV Piparia Sub-station	: 2 x 20= 40 MVA
12.	66/11KV Velugam Sub-station	: 1x 15 + 1X20 = 35 MVA
13.	66/11KV Kala Sub-station	: 2x 20 = 40 MVA
13.	66/11KV Jhanda Chow GIS Sub-station	: 2x 20 = 40 MVA
	Total	822 MVA

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4 Organization Structure: Roles and Responsibilities

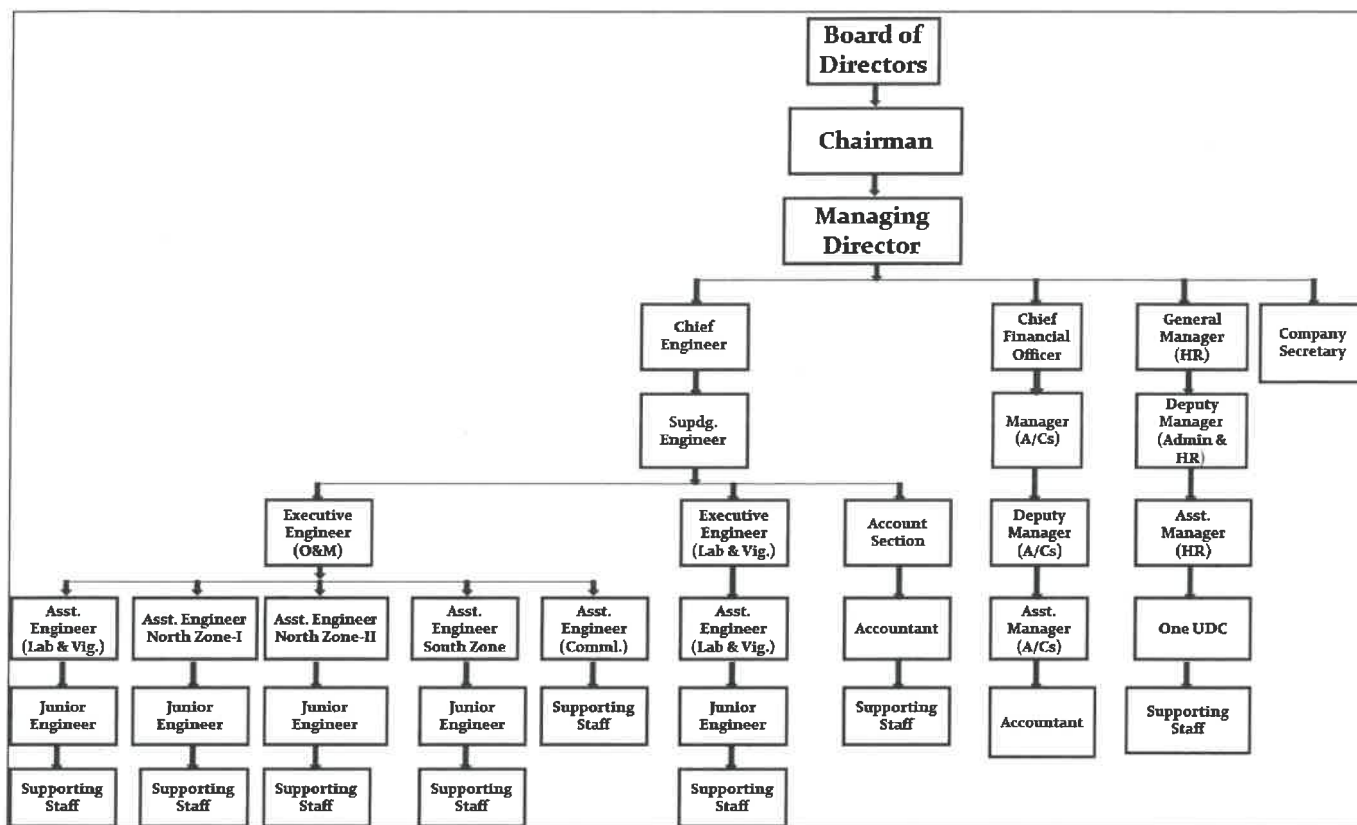
DNH Power Distribution Corporation Ltd is part of the Administration of Union Territory of Dadra & Nagar Haveli & Daman and Diu and headed by the Managing Director/Secretary (Power). Day to day work related to functioning of the Department is looked by the Executive Engineer (Elect.)/ Superintending Engineer/Chief Engineer at Division level.

Under Division there are two Division headed by the Executive Engineers, i.e. 1) Distribution Division and 2) Laboratory And Vigilance. Executive Engineer at Division Office is also helped by Technical Section headed by The Assistant Engineers. Human Resource Section is headed by GM (HRM) and Finance and Accounts Section is headed by Chief Financial officer.

At lower level there are Junior Engineers who look after the Operation & Maintenance work of their respected assigned areas and report to their respected Assistant Engineer.



Figure 2: Organisation structure of Dadra & Nagar Haveli Power Distribution Corporation Limited



5 Power Sector of DNH

The DNHPDCL does not have its own power stations and relies on power from Central Generating Stations (NTPC, NPCIL, NSPCL) and other IPPs to meet its demand.

Chart 1: Depicting Percentage of Energy Allocation from Central Generating Stations

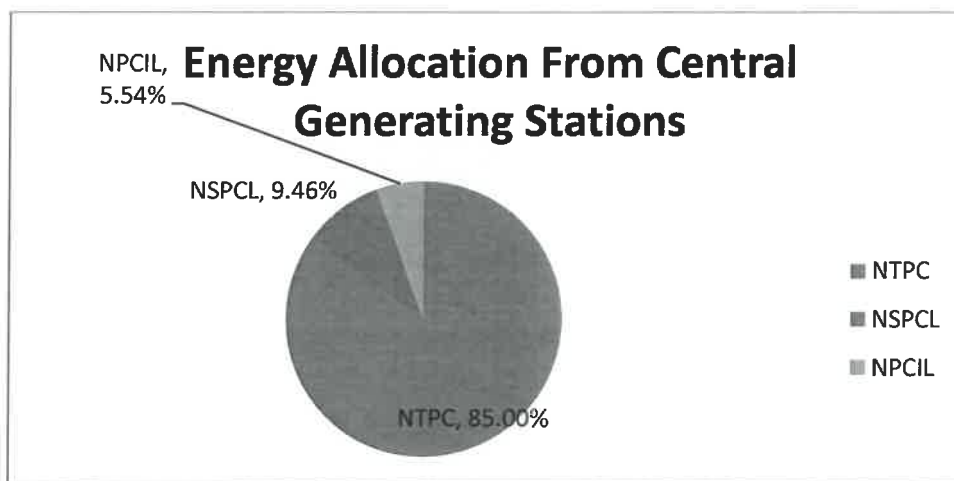


Chart 2: Depicting Increase in Growth of Consumer Numbers

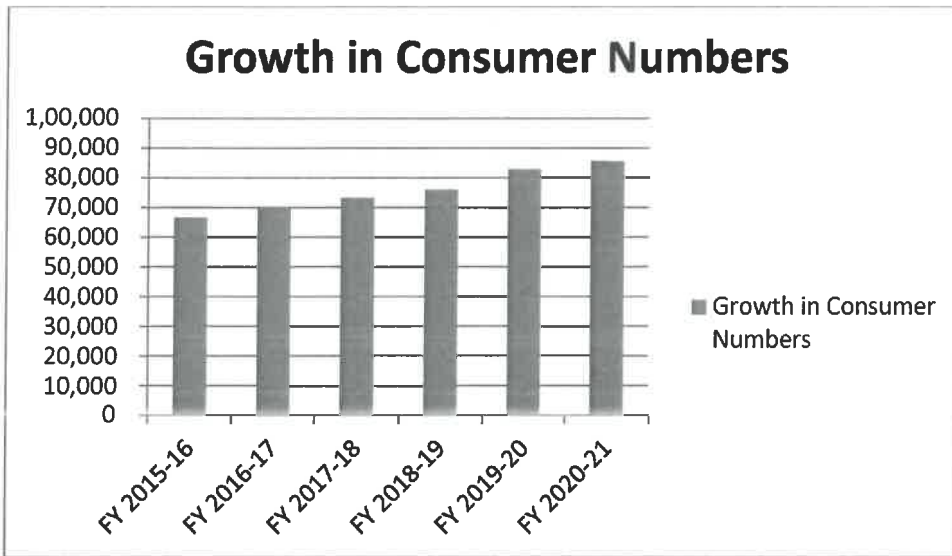


Chart 3: Depicting Consumer Mix Percentage for FY 2020-21

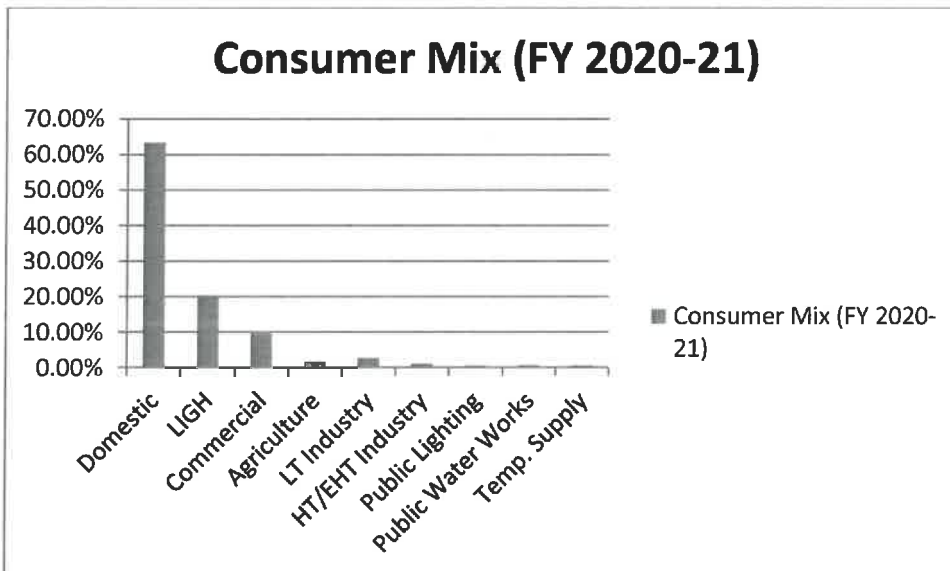


Chart 4: Depicting Consumer Growth Category Wise

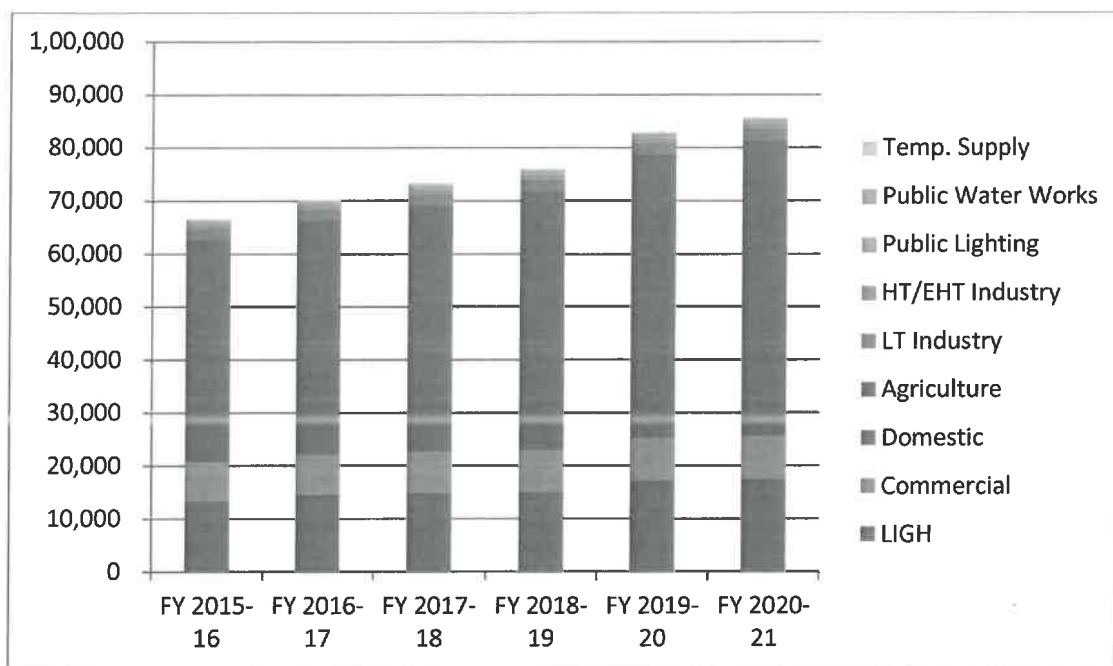


Chart 5: Depicting Year Wise Growth of Energy Sales in (MU)

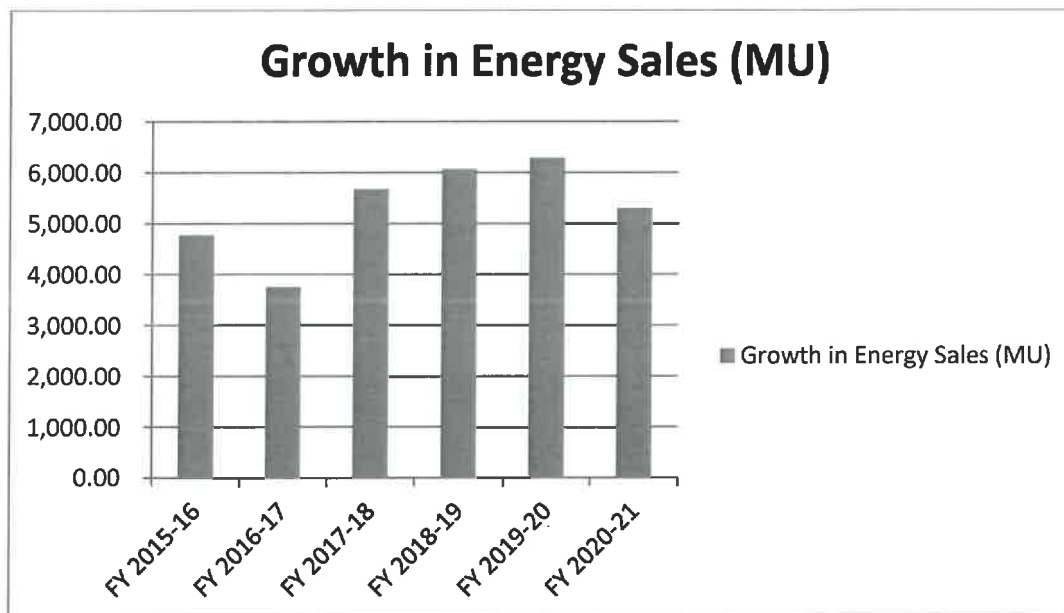
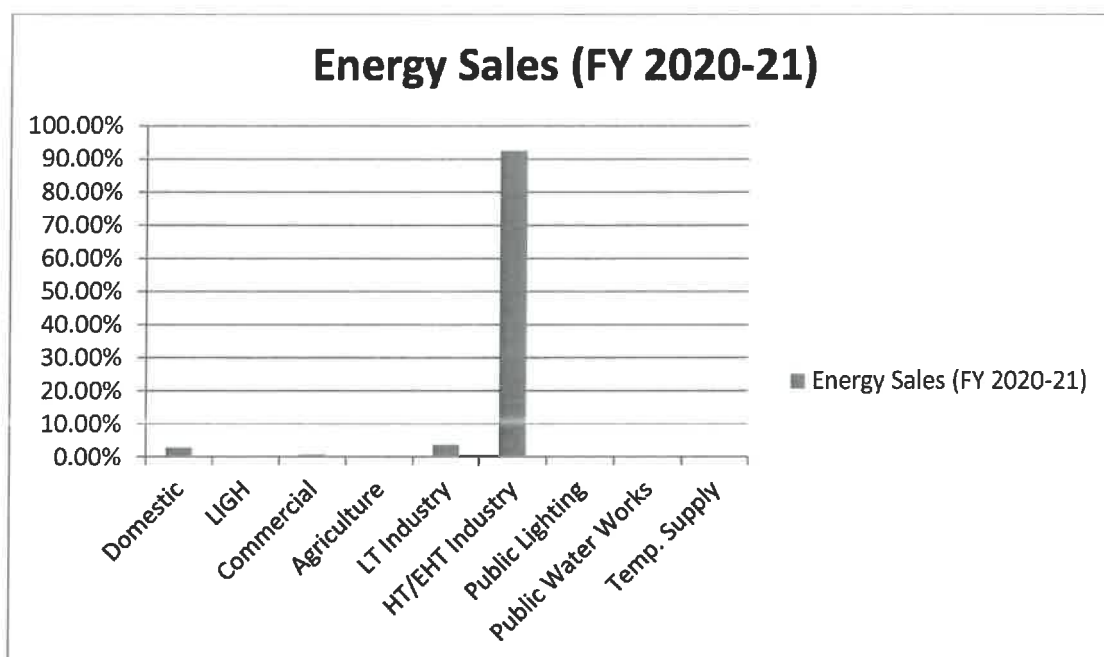


Chart 6: Depicting Percentage of Sales Category Wise



6 Future Power Allocation

During the control period, it is expected that capacity from the RE power plants would be required to be added to the current power purchase portfolio with a main to RPO compliances by physical power. Any new development in the said matter will be informed to the Commission.

7 IT Initiatives

- Implementation of RACE (Revenue Administration through Computerized Energy Billing system) Software.
- Three computerized Collection Counters at Silvassa office.
- One collection counter at Khanvel Sub-division office.
- Four nos. ATP (Any Time Payment Machine) KIOSK at Silvassa office.
- Implementation of Online Bill Payment using payment gateway of HDFC Bank.
- Android App of DNHPDCL for bill payment
- The DNHPDCL is onboard on Bharat Bill Payment System
- Consumer can pay bills by Net-banking, Credit Card, Debit Card, Vodafone m-paisa, Airtel Money, IMPS, RTGS (E-Challan), NEFT etc.
- Another two service ECS and EBPP have been launched.
- UT Administration has launched CSC (Common Service Centre) in D&NH as identified 'Saral Seva Kendra' at 11 Panchayat-Ghars in the UT of D&NH to facilitate electricity bill payment.
- Consumer portal for viewing and payment of bills and other information like bill view, paid history etc.
- SMS Gateway for alert message like bill generation, payment reminder and payment acknowledgement receipt.
- 100% Computerized billing for all category.

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- 100% Monthly HT Billing through Remote Metering / Manual Data Collection
- 100 % Monthly LT Industrial Billing through manual Meter reading
- Online software for new applications for release of connection, change of name, reduction of load etc.
- ERP system to be launched for transmission system.

8 Physical achievements during MYT Control Period FY 2019-20 to FY 2021-22

- Implementation of Underground cabling with establishment of 66/11 KV substation in SMC area, Silvassa town to ensure uninterrupted power supply 24*7 basis.
- Erection of Multi-circuit lines from Vaghchippa to Amlu to ensure the reliability of supply in the distribution area.
- Erection of overhead lines from Khanvel to Dudhani to ensure better supply in rural area and
- Creation of Power Transformer 20MVA Center at Kharadpada.



Chapter 3: SWOT Analysis

As part of the development of a strategic plan for any organization, it is necessary to understand the inherent competitive advantage of the electricity department as well as the risk surrounding its business environment. Like any other businesses, it is very important for DNHPDCL to evaluate the environment – both internal and external while charting out its growth path. The aim of a SWOT analysis is to identify the key internal and external factors that are important for achieving the objectives of the company.

The SWOT analysis is a strategic planning technique used to assess the internal and external environment in which the electricity department operates and competes. These come from within the company's unique value chain. The information being used for the SWOT analysis is grouped into two main categories:

- Internal factors – The strengths and weaknesses internal to the organization;
- External factors – The opportunities and threats presented by the external environment to the organization;

This section provides the analysis of the strengths, weaknesses, opportunities and threats as perceived by DNHPDCL. These are summarized in the following table:

	Helpful <i>In achieving the objective</i>	Harmful <i>In achieving the objective</i>
Internal Attributes of the Organisation	STRENGTHS <ul style="list-style-type: none"> ✓ Quality & Reliable Power Supply, ✓ Lower T&D Losses, ✓ Efficient Customer Service ✓ Lower other operation cost, 	WEAKNESS <ul style="list-style-type: none"> ✓ Ageing Distribution Network ✓ Very Less Own generation ✓ Inadequate Manpower ✓ Less manpower, hence no training
External Attributes of the Environment	OPPORTUNITIES <ul style="list-style-type: none"> ✓ Business Growth due to setting up of new industries 	THREATS <ul style="list-style-type: none"> ✓ Increase in Coal Prices / POC ✓ Unavailability of natural gas

Strengths:

- **Quality Power Supply:** DNHPDCL has been providing quality and reliable power supply to its consumers with low voltage fluctuations and power supplied at a stable frequency.
- **Lower Losses:** DNHPDCL has been very proficient in reducing the Distribution losses to 3.47% up to FY 2019-20 over the last few years. DNHPDCL has been and shall always be committed towards taking the best possible measures to minimise distribution losses by adopting pro-active approach and adopting best practices prevalent in the distribution sector in India. The distribution losses of DNHPDCL are one of the lowest among the power distribution utilities in India.
- **Efficient Customer Service:** DNHPDCL has been providing efficient services to its consumers and has initiated Consumer Management System ensuring better services to its consumers round the clock.

Weakness:

- **Ageing Distribution Network:** DNHPDCL has been supplying electricity for a very long time and has also been maintaining its network. However, with passage of time the Distribution Network has started showing signs of ageing and this shall lead to deterioration in performance of DNHPDCL, if adequate and timely steps are not taken.
- **Very Less Own Generation:** The own generation of DNHPDCL is limited to the upcoming solar plants. The DNHPDCL has to depend upon the power generation from the Central Generating Stations like NTPC, NPCIL etc. At times when there is a grid outage or a shutdown of the plants allocated to DNHPDCL, the department has to resort to costly short term power purchase to supply uninterrupted power supply to the industries.
- **Inadequate Manpower:** The manpower of DNHPDCL serving the UT of Dadra & Nagar Haveli is inadequate. The ratio of the no. of consumers per employee is much higher as compared to the Distribution companies in other states.

Opportunity:

- **Business growth due to setting up of new industries:** Over the past ten to fifteen years, the UT has seen a tremendous growth in the no. of industries setting up base in Silvassa due to the tax free policy of the Government of India in previous years and presently due to low tariff rate of electricity. As such, DNHPDCL foresees an expansion of Customer base and load growth in its license area.

Threats

- **Increase in Coal Prices:** It is a well known fact that the increase in coal prices is causing some serious strains to the power utilities. Also, the lower PLF achievement for conventional power plant is also worsening the situation. As a result of these, generators at the central level are witnessing increase in power tariffs. If such increase in tariff is allowed in the near future, this increase will have to be borne by the consumers. DNHPDCL feels that this shall cause hardship on its consumers.

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- **Unavailability of natural gas:** DNHPDCL has share allocation from gas run generation stations like Kawas, Gandhar etc. Due to non-availability of gas to run these stations, the DNHPDCL is getting very less energy from these plants and DNHPDCL has to resort to short term purchase of power to meet its demand.



Chapter 4: Sales**1 Load Growth**

The Table given below summarizes the growth in sanctioned load over the past 6 years.

Table 3: Past Years' Load Growth

Consumer Category	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
	Actual	Actual	Actual	Actual	Actual	Actual
Domestic	93,886.64	96,077.52	1,01,282.64	105192.00	94309.00	106754.00
LIG/ Kutir Jyoti	1,343.30	1,477.10	1,486.25	1585.00	1389.00	1547.00
Commercial	24,488.24	25,751.93	26,690.54	27865.00	21347.00	34238.00
Agriculture	5,479.20	5,590.32	5,778.89	5935.00	6593.00	7411.00
LT Industry	1,09,910.05	1,13,066.56	1,15,920.90	119051.00	134784.00	140224.00
HT/EHT Industry	11,46,822.00	11,43,066.00	11,57,756.00	1177554.00	1185935.00	1167507.00
Public Lighting	2,346.00	2,536.05	2,706.48	2886.00	2046.00	2568.00
Public Water Works	2,257.12	2,443.62	2,885.62	3272.00	4790.00	4860.00
Temp. Supply	2,358.59	2,358.78	2,536.66	2537.00	1690.00	2727.00
Total	13,88,891.14	13,92,367.88	14,17,043.98	1445877.00	1452883.00	1467836.00

To project the load growth for the different consumer categories, CAGR obtained from the actual load growth during the past years has been used. To project the load growth in the domestic, commercial, agriculture and HT category a CAGR of 5 years has been used. For the LT industry a CAGR of 3 years has been used. For Public Lightning a CAGR of 4 years has been used. For the public water works category a normalized CAGR of 5% has been used. The CAGR along with the projected load for the control period has been given in the table below:

Table 4: Projected load growth during Control Period (FY 2019-20 to FY 2021-22)

Consumer Category	FY 21-22	FY 22-23	FY 23-24	FY 24-25	CAGR
	RE	Projected	Projected	Projected	
Domestic	109531.80	112381.88	115306.12	118306.46	2.60%
LIGH	1547.00	1547.00	1547.00	1547.00	2.86%
Commercial	36611.59	39149.72	41863.82	44766.08	6.93%
Agriculture	7872.43	8362.59	8883.26	9436.36	6.23%
LT Industry	149408.70	159195.00	169622.30	180732.60	6.55%
HT/EHT Industry	1171688.56	1171688.56	1171688.56	1171688.56	0.36%
Public Lighting	2576.05	2584.13	2592.23	2600.35	0.31%
Public Water Works	5103.00	5358.15	5626.06	5907.36	5.00%
Temp. Supply	2727.00	2727.00	2727.00	2727.00	
Total	1487066.12	1502994.03	1519856.36	1537711.76	

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2 Consumer Growth

The Table 5 below summarizes the category wise growth in consumers over the past 6 years.

Table 5: Past Years' Consumer Growth

Consumer Category	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
	Actual	Actual	Actual	Actual	Actual	Actual
Domestic	40773	42835	45205	47402	52072	54371
LIG	13443	14603	14879	15089	17232	17419
Commercial	7306	7586	7809	7980	8061	8163
Agriculture	1211	1263	1313	1366	1286	1319
LT Industry	2038	2063	2064	2077	2191	2254
HT/EHT Industry	889	895	918	930	916	915
Public Lighting	324	350	374	398	411	421
Public Water Works	340	358	398	434	460	464
Temp. Supply	334	347	379	379	334	391
Total	66,658	70,300	73,339	76,055	82,963	85,717

Annual Growth in the number of consumers for the MYT Control Period is projected on the basis of the y-o-y growth in the consumers across different categories. The CAGR along with the projected consumer growth for the control period has been given in the table below:

Table 6: Projected consumer growth during Control Period (FY 2022-23 to FY 2024-25)

Consumer Category	FY 21-22	FY 22-23	FY 23-24	FY 24-25	CAGR
	RE	Projected	Projected	Projected	
Domestic	57593	61005	64620	68448	5.93%
LIGH	17419	17419	17419	17419	5.32%
Commercial	8346	8533	8725	8920	2.24%
Agriculture	1342	1365	1388	1412	1.72%
LT Industry	2300	2347	2394	2443	2.04%
HT/EHT Industry	920	926	931	936	0.58%
Public Lighting	444	467	493	519	5.38%
Public Water Works	488	514	541	569	5.25%
Temp. Supply	391	391	391	391	
Total	89,243	92,967	96,902	1,01,059	

3 Energy Sales Growth

Table 7 below presents the category-wise energy sales for the past 6 years.

Table 7: Past Years' Energy Sales Growth

Consumer Category	(MU)					
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
	Actual	Actual	Actual	Actual	Actual	Actual
Domestic	101.52	104.46	116.91	128.60	143.57	149.28
LIG/Kutir Jyoti	0.00	0.00	0.00	0.00	10.45	7.28
Commercial	28.78	30.36	32.72	34.20	36.60	32.65
Agriculture	5.77	6.20	6.50	7.23	5.25	4.85
LT Industry	200.86	211.70	208.24	216.07	219.44	193.09
HT/EHT Industry	4,421.50	3,384.17	5,295.13	5,670.85	5,860.85	4898.91
Public Lighting	7.46	8.27	7.97	5.80	3.06	2.45
Public Water Works	3.56	4.55	5.45	6.24	5.01	5.15
Temp. Supply	2.95	3.20	3.39	3.43	3.75	3.83
Total Sales	4,772.40	3,752.91	5,676.30	6,072.42	6,288.00	5,297.50*

* reduction on account of covid lockdown restriction.

The DNHPDCL is of the view that the factors affecting the actual consumption of electricity are numerous and often beyond the control of the utility including factors such as Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. DNHPDCL, therefore for projecting the category-wise consumption for the MYT Control Period has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

The energy sales for the Control period have been determined based on CAGR for past years and actual energy sales in various consumer categories. Since the energy sales in each category depends upon a number of factors like growth in economy, climate, Government policies, normalization in sales has been undertaken in order to remove any wide fluctuations.

A CAGR of 3.15% has been considered for estimation of sales in the HT/EHT industry category.

For the domestic consumers, the DNHPDCL has projected the energy sales for MYT control period by applying a 5 year Compounded Annual Growth Rate (CAGR) of 9.04% on the estimated sales for FY 2021-22. A 5 year CAGR of 6.24% has been considered for estimation of sales in commercial category.

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For the agriculture and LT industry, the DNHPDCL has projected the energy sales for the MYT control period by applying a CAGR of 4.04% and 3.69% on the estimated sales for FY 2021-22.

The following Table summarizes category wise projected energy sales for the MYT Control Period for DNHPDCL. As can be observed, the overall energy sales in UT of Dadra & Nagar Haveli are significantly dependent upon LT and HT/EHT industrial consumption.

The DHPDCL submits to the Hon'ble Commission to approve the energy sales forecasted herein.

Table 8: Projected energy sales during Control Period (FY 2022-23 to FY 2024-25)

Consumer Category	FY 21-22	FY 22-23	FY 23-24	FY 24-25	CAGR
	RE	Projected	Projected	Projected	
Domestic	173.53	189.22	206.33	224.99	9.04%
LIGH	7.33	7.85	8.40	8.98	7.00%
Commercial	37.33	39.66	42.14	44.76	6.24%
Agriculture	4.77	4.97	5.17	5.38	4.04%
LT Industry	225.33	233.65	242.28	251.23	3.69%
HT/EHT Industry	6128.60	6321.68	6520.85	6726.29	3.15%
Public Lighting	2.50	2.62	2.75	2.89	5.00%
Public Water Works	5.04	5.29	5.55	5.83	5.00%
Temp. Supply	4.36	4.40	4.45	4.49	1.00%
Total	6,588.80	6,809.35	7,037.92	7,274.84	

Chapter 5: Power Purchase Plan**1 Power Purchase Quantum**

Dadra & Nagar Haveli has firm and infirm allocated share in Central Sector Generating Stations (CSGS) of NTPC, Nuclear Power Corporation of India Ltd (NPCIL), and NTPC Sail Power Company Ltd (NSPCL).

The power availability for the FY 2021-22 and the MYT Control period has been estimated based on the revised allocation issued by the Western Region Power Committee (WRPC) vide no's. WRPC/Comm-I/6/Alloc/2021/1048 dated 29.10.2021. The energy allocation from various generating stations is summarized in table below:

Table 9: Energy Allocation from Central Generating Stations

Name of the plant	(MW)		
	Weighted average Infirm allocation	Weighted Average Firm allocation	Weighted average total allocation
KSTPP	54.32	0.00	54.32
KSTPS -3	20.48	2.20	22.68
VSTPP-I	38.41	5.00	43.41
VSTPP-II	29.52	4.00	33.52
VSTPP- III	29.52	6.00	35.52
VSTPP- IV	40.97	5.55	46.52
KAWAS	56.23	25.00	81.23
GGPP	56.74	2.00	58.74
Sipat – I	81.12	9.00	90.12
Sipat – II	28.11	4.00	32.11
KHSTPP – II	3.50	0.00	3.50
Mauda I (MSTPS)	0.00	0.00	0.00
VSTPP-V	20.48	5.55	26.03
Mauda II	54.08	8.60	62.68
Solapur	54.08	21.57	75.65
Gadarwara	65.55	20.83	86.38
LARA	64.97	10.46	75.43
Kharagaon	54.08	16.83	70.91
NPCIL – KAPS	14.37	2.00	16.37
NPCIL - TAPP 3&4	35.22	7.00	42.22
Total	801.77	155.59	957.36
NSPCL Bhilai		100	100.00

It is expected that DNHPDCL will not be getting any power from Ratnagiri during the MYT Control period and therefore no power purchase from the said plant has been considered.

Power purchase quantum from the NTPC stations for the FY 2021-22 and the MYT Control Period has been calculated based on the installed capacity of each plant and by applying the PLF approved by the Hon'ble Commission vide order for the Business Plan dated 5th November, 2018.

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Auxiliary consumption of 7.75% and 2.5% has been considered for coal and gas based generating stations, respectively.

DNHPDCL has already installed 4.585 MW of solar plants in its territory for generation of solar energy out of which 4.1 MW is ground mounted and 485 KW is solar rooftop. A summary of the RPO obligation to be met by the DNHPDCL during the FY 2021-22 and the MYT Control period has been given in the table below:

Table 10: Summary of RPO for the MYT Control Period

Description	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Sales within State (MU)	6,588.80	6,809.35	7,037.92	7,274.84
RPO obligation (%)	17.00%	17.00%	17.00%	17.00%
Solar	8.00%	8.00%	8.00%	8.00%
Non-Solar	9.00%	9.00%	9.00%	9.00%
RPO obligation for the year (MU)	1120.10	1157.59	1196.45	1236.72
Solar	527.10	544.75	563.03	581.99
Non-Solar	592.99	317.49	633.41	654.74
RPO Compliance (Procurement and own generation)	643.26	643.26	800.00	800.00
Solar	325.77	325.77	400.00	400.00
Non-Solar	317.49	317.49	400.00	400.00
RPO Compliance (REC certificate purchase)	476.84	514.33	396.45	436.72
Solar	201.34	218.98	163.03	181.99
Non-Solar	275.50	295.35	233.41	254.74

For computing the power availability at the periphery, 3.66% external transmission losses have been applied on the gross power purchase for the FY 2021-22 and the MYT Control Period.

Table 12 below depicts the station wise power purchase for FY 2021-22 and the MYT Control Period.

Table 11: Power Purchase Quantum

(MU)

Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NTPC Stations				
KSTPS	400.54	390.64	390.64	390.64
KSTPS 3	169.11	164.98	164.98	164.98
VSTPP-I	307.55	301.71	301.71	301.71
VSTPP-II	224.82	230.26	230.26	230.26
VSTPP- III	237.95	246.87	246.87	246.87
VSTPP- IV	342.56	323.28	323.28	323.28
KGPP	143.58	277.51	277.51	277.51

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Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
GGPP	118.86	210.72	210.72	210.72
Sipat-I	644.64	655.42	655.42	655.42
Sipat-II	243.51	233.52	233.52	233.52
Mauda	0.00	0.01	0.01	0.01
VSTPS-V	191.30	180.93	180.93	180.93
Mauda 2	288.56	243.14	243.14	243.14
Solapur	312.80	366.82	366.82	366.82
LARA	520.92	511.07	511.07	511.07
Gadarwara	502.96	585.30	585.30	585.30
Kharagaon	375.64	480.50	480.50	480.50
KHSTPP-II	21.67	22.06	22.06	22.06
Subtotal - NTPC	5047.00	5424.73	5424.73	5424.73
NSPCL - Bhilai	709.28	703.06	703.06	703.06
NPCIL				
KAPS	84.23	93.46	93.46	93.46
TAPS	292.53	267.79	267.79	267.79
Subtotal	376.76	361.25	361.25	361.25
Power purchase from Other Sources				
Indian E. Exchange/Bilateral	931.83	841.00	1076.00	1321.00
UI	28.99	0.00	0.00	0.00
Solar	5.91	5.91	5.91	5.91
Non Solar	0.00	0.00	0.00	0.00
Solar REC	0.00	0.00	0.00	0.00
Non Solar REC	0.00	0.00	0.00	0.00
Subtotal	966.72	846.91	1081.91	1326.91
Rebate				
Total Power Purchase	7099.76	7335.94	7570.94	7815.94
External Losses				
Availability at ED-DNH Periphery	7099.76	7335.94	7570.94	7815.94

2 Power Purchase Cost

The cost of purchase from the central generating stations for the MYT Control period is estimated based on the following assumptions:

- Fixed cost for the MYT Control Period has been projected by considering the fixed cost estimated for the various stations for the FY 2021-22.
- Variable cost for each NTPC generating stations for the MYT Control Period has been projected by the actual variable cost incurred during the first six months of FY 2021-22 for various stations.

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- For nuclear plants i.e. KAPP and TAPP single part tariff, the actual average variable cost per unit incurred for the first six months of FY 2020-21 has been considered for projecting the cost for the MYT Control Period.
- For NTPC-SAIL Bhilai unit 1 & 2, the fixed has been projected by considering the fixed cost estimated for the FY 2021-22 and for projecting the variable cost the actual average variable cost per unit incurred for the first six months of FY 2021-22 has been considered.
- For power purchase from renewable energy sources, for the MYT Control Period, the DNHPDCL has outsourced the maintenance cost of the solar plants to BHEL. The Total Power Purchase cost from various sources for the FY 2021-22 is summarized in Table below:

Table 12: Power Purchase Cost

(Rs. Cr.)

Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NTPC Stations				
KSTPS	89.54	85.56	85.56	85.56
KSTPS 3	47.00	46.52	46.52	46.52
VSTPP-I	80.83	77.54	77.54	77.54
VSTPP-II	51.94	52.64	52.64	52.64
VSTPP- III	61.34	63.24	63.24	63.24
VSTPP- IV	107.27	103.93	103.93	103.93
KGPP	74.83	93.43	93.43	93.43
GGPP	62.90	77.50	77.50	77.50
Sipat-I	186.67	188.85	188.85	188.85
Sipat-II	69.40	67.79	67.79	67.79
Mauda	0.55	0.00	0.00	0.00
VSTPS-V	62.48	60.90	60.90	60.90
Mauda 2	159.61	142.75	142.75	142.75
Solapur	199.98	217.85	217.85	217.85
LARA	209.44	207.31	207.31	207.31
Gadarwara	271.69	296.00	296.00	296.00
Kharagaon	188.46	219.69	219.69	219.69
KHSTPP-II	7.27	7.37	7.37	7.37
Subtotal - NTPC	1931.27	2008.87	2008.87	2008.87
NSPCL - Bhilai	302.93	300.29	300.29	300.29
NPCIL				
KAPS	19.64	21.80	21.80	21.80
TAPS	103.09	91.16	91.16	91.16
Subtotal	122.74	112.96	112.96	112.96
Power purchase from Other Sources				
Indian E. Exchange/Bilateral	409.23	393.59	450.24	552.76
UI	10.97	0.00	0.00	0.00
Solar	0.00	0.00	0.00	0.00
Non Solar	0.00	0.00	0.00	0.00

Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Solar REC	23.76	25.84	19.24	21.47
Non Solar REC	32.51	34.85	27.54	30.06
Subtotal	476.47	454.28	497.02	604.29
Rebate				
Total Power Purchase	2833.40	2876.39	2919.13	3026.40
External Losses				
Availability at ED-DNH Periphery	2833.40	2876.39	2919.13	3026.40

3 Transmission and Other Charges

Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. DNHPDCL has a mix of firm and infirm capacity allocation from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Therefore, considering the changing capacity allocation, DNHPDCL has estimated the transmission charges. For the FY 2021-22 and the MYT Control Period the transmission charges payable to the ED-DNH (Transmission Division) have also been considered by the DNHPDCL.

PGCIL transmission charges for the FY 2021-22 and the MYT Control Period have been projected by considering the average monthly bill being received from PGCIL.

The transmission charges along with the total power purchase cost for the FY 2021-22 and the MYT Control Period has been given in the table below:

Table 13: Total Power Purchase Cost for the Control Period

(Rs. Cr.)

Source	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Availability at ED-DNH Periphery	2833.40	2876.39	2919.13	3026.40
PGCIL CHARGES	459.56	482.53	506.66	531.99
POSOCO	0.97	0.97	0.97	0.97
WRPC	0.00	0.00	0.00	0.00
Reactive charges	0.00	0.00	0.00	0.00
MSTCL	0.00	0.00	0.00	0.00
Intra-state transmission charges	51.73	40.00	36.00	36.00
Grand Total of Charges	3345.66	3399.90	3462.76	3595.37

Chapter 6: T&D Loss Trajectory and Energy Balance

The DNHPDCL has achieved a significant reduction in transmission & distribution losses. The DNHPDCL would like to submit that the system improvement works executed every year under the plan schemes as well as planned maintenance activities of systems has resulted in the reduction of T & D losses.

DNHPDCL has achieved Distribution loss level of 3.62% for the FY 2020-21 as against the target of 4.20% given by the Hon'ble Commission in the Tariff Order for the FY 2020-21. Further, the Hon'ble Commission had set a T&D loss level target of 4.10% for the FY 2021-22 in the Tariff Order dated 23rd March, 2021. The DNHPDCL has kept the T&D losses at the same level as approved by the Hon'ble Commission for FY 2021-22. Reduction of Distribution loss will involve significant amount of capital expenditure and it is DNHPDCL's endeavour to bring the Distribution loss level further down in the subsequent years. The projected distribution loss for the FY 2012-22 and the MYT Control Period is as given in the table below:

Table 14: Proposed T&D Loss Trajectory

Particulars	(%)			
	FY 21-22 RE	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected
Distribution Loss	4.10%	4.06%	4.02%	4.00%

Based on the proposed loss levels and projected energy requirement and availability within the state, the Energy Balance is presented in the following table:

Table 15: Energy Balance

Particulars	(MU)			
	FY 21-22 RE	FY 22-23 Proj.	FY 23-24 Proj.	FY 24-25 Proj.
Sales	6588.80	6809.35	7037.92	7274.84
Open Access Sales	0.00	0.00	0.00	0.00
Less: Energy Savings	0.00	0.00	0.00	0.00
Total Sales	6588.80	6809.35	7037.92	7274.84
Add: Losses	281.69	288.16	294.77	303.12
T&D Losses	4.10%	4.06%	4.02%	4.00%
Energy Required at Periphery	6870.49	7097.51	7332.69	7577.96
Add: Sales to common pool consumer	0.17	0.94	0.75	0.48
Add: Sales through IEX	4.63	0.00	0.00	0.00
Less: Own Generation	5.91	5.91	5.91	5.91
Total energy requirement at state periphery	6869.38	7092.54	7327.54	7572.54
Less: Energy Purchased through UI at Periphery	28.99	0.00	0.00	0.00
Less: Purchase from Renewable Sources	0.00	0.00	0.00	0.00
Less: Open Access Purchase	0.00	0.00	0.00	0.00
Less: Purchased through IEX	931.83	841.00	1076.00	1321.00
Total Energy Required at Periphery	5908.57	6251.54	6251.54	6251.54



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Particulars	FY 21-22	FY 22-23	FY 23-24	FY 24-25
	RE	Proj.	Proj.	Proj.
Transmission loss	224.47	237.50	237.50	237.50
Transmission loss(%)	3.66%	3.66%	3.66%	3.66%
Total Energy to be purchased	6133.04	6489.04	6489.04	6489.04
Total Energy requirement from tied up sources + UI at generator end +renewable sources	7099.76	7335.94	7570.94	7815.94
Total Energy requirement in UT including Open Access	7099.76	7335.94	7570.94	7815.94



Chapter 7: Capital Investment Plan**1 Capital Investment plan of DNHPDCL**

As has been discussed above, the DNHPDCL is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Dadra and Nagar Haveli. Apart from the solar plants, it does not have its own power generation station and completely rely on the Central Sector Generating Stations (CSGS) in Western Region to meet its energy demand.

Based upon the above mandate the CAPEX Plan proposals (scheme wise) for FY 2022-23 to FY 2024-25 under the MYT Control Period FY 2022-25 have been formulated by DNHPDCL in order to effect better planning, budgeting and monitoring at macro & micro levels. The schemes are as follows:

Table 16: Proposed Capital Expenditure Schemes for the MYT Control Period

S.N.	Name of Scheme	Total estimated amount for MYT Control Period	Proposed Expenditure		
			2022-23	2023-24	2024-25
1	Erection of various capacity of new distribution transformer, extension of HT/LT line, releasing of new service connection under normal development scheme	3.00	1.00	1.00	1.00
2	Conversion of 66/11 KV (15X3+20X2=85 MVA) substation in to GIS substation at Amli	40.00	-	20.00	20.00
3	Augmentation of 66/11 Waghdara Substation from 2X20 MVA to 3x20 MVA	10.00	10.00	-	-
4	Establishment of 66/11 GIS substation at Dadra (2X20 MVA)	25.00	-	10.00	15.00
5	Augmentation of 66/11 Piparia Substation from 2X20 MVA to 3x20 MVA	15.00	-	15.00	-
6	66 KV line from Wagchipa to Sayali (10 KM)	25.00	-	25.00	-
7	66 KV line from Wagchipa to Masat (15 KM)	40.00	-	15.00	25.00
8	66 KV line from Wagchipa to Dadra (10 KM)	25.00	-	25.00	-
9	Establishment of new 66/11 kV , 2x20 MVA substation at Sayali	40.00	-	10.00	30.00

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S.N.	Name of Scheme	Total estimated amount for MYT Control Period	Proposed Expenditure		
			2022-23	2023-24	2024-25
10	Establishment of new 66/11 kV, 2x20 MVA substation at Silli	25.00	-	25.00	-
11	Conversion of double circuit 66 KV line from 220 kV Kharadpada to Masat substation from Panther to TACSR	2.70	2.70	-	-
12	Conversion of double circuit 66 KV line from 220 kV Kharadpada to Rakholi substation from panther to TACSR	2.65	2.65	-	-
13	Conversion of double circuit 66 KV line from 220 KV Khadoli substation to Rakholi substation	2.75	2.75	-	-
14	Renovation of Central room building and replacement of 66 KV breakers, isolator, CTs, PTs etc. at 66/11 KV substation Kharadpada	4.00	1.00	3.00	-
15	Other office assets, office automation and other equipment etc.	5.00	1.00	2.00	2.00
16	Strengthening of old HT line (11 kV Mandoni Rural feeder) by new insulated ACSR HT conductor from Khanvel Substation to village Khedpa / Bedpa Vadpada	14.94	-	14.94	-
17	Construction of new control room building at Dadra substation	5.00	-	5.00	-
	Total	285.04	21.10	170.94	93.00

1. **Name of Scheme: Erection of various capacity of new distribution transformer, extension of HT/LT line, releasing of new service connection under normal development scheme.**

Cost Rs. 300.00 Lakh.

Salient Features:

Due to creation of new colonies and other infrastructural development in the area, new distribution transformer canters are required to be constructed to ensure the supply and new service connection. Due to numerous quantities of creation and places, these could be

estimated at individual level. Hence, an amount of Rs. 300 Lakh is proposed for the said scheme.

2. Name of Scheme: Conversion of 66/11 KV (15X3+20X2=85 MVA) substation in to GIS substation at Amlī.

Cost Rs. 4000.00 Lakh.

Salient Features:

The 66/11 KV substation at Amlī has been constructed long back in the year 1980 and reached at the fag-end of its life. Hence, the sub-station is required to be constructed again. In view of above, it is proposed that the conversion of the said sub-station would be carried out during the control MYT period with the latest technology i.e. GIS sub-station. The estimated cost for carrying out the said work would be around Rs. 6000 Lakh. The implementation of the said scheme, would result into reduce the power interruption, line losses and also ensure beautification of the said area.

3. Name of Scheme: Augmentation of 66/11 Waghdara Substation from 2X20 MVA to 3x20 MVA.

Cost Rs. 1000.00 Lakh.

Salient Features:

The present load at the existing transformer center at Waghdara substation is loaded with 80% to 90% of the capacity. Hence, the augmentation of the said substation is required to be carried out. In view of above, it is proposed that the augmentation of the said sub-station would be carried out during the control MYT period. The estimated cost for carrying out the said work would be around Rs. 1000 Lakh. The implementation of the said scheme would result into reduce the power interruption, optimization of load distribution and reduction in line losses.

4. Name of Scheme: Establishment of 66/11 GIS substation at Dadra (2X20 MVA).

Cost Rs. 2500.00 Lakh.

Salient Features:

There is substantial load increase in the dadra area. The current sub-station is already loaded to the total capacity and there is no space is available for further expansion of control room and switch yard. Hence, a new GIS substation is proposed to be constructed. In view of above, a new sub-station of 40 MVA load capacity would be carried out during the control MYT period with the latest technology i.e. GIS substation. The estimated cost for carrying out the said work would be around Rs. 2500 Lakh. The implementation of the said scheme would result into reduce the power interruption.

5. Name of Scheme: Augmentation of 66/11 Piparia Substation from 2X20 MVA to 3x20 MVA.

Cost Rs. 1500.00 Lakh.

Salient Features:

The present load at the existing transformer center at Piparia substation is loaded with 80% to 90% of the capacity. Hence, the augmentation of the said substation is required to be carried out. In view of above, it is proposed that the augmentation of the said sub-station

would be carried out during the control MYT period. The estimated cost for carrying out the said work would be around Rs. 1500 Lakh. The implementation of the said scheme, would result into reduce the power interruption, optimization of load distribution and reduction in line losses.

6. Name of Scheme: 66 KV line from Wagchipa to Sayali (10 KM).

Cost Rs. 2500.00 Lakh.

Salient Features:

The existing line is overloaded with 90% of the capacity and to have a second source of supply from newly created 220/66 KV wagchipa substation to sayali, it is proposed to lay multi circuit 66 KV line from Wagchipa to Sayali (approximately 10 KM). The said line is constructed in the present MYT control period. The estimated cost for carrying out the said work would be around Rs. 2500 Lakh. The implementation of the said scheme would result into reliability of power supply and strengthening of the existing network.

7. Name of Scheme: 66 KV line from Wagchipa to Masat (15 KM).

Cost Rs. 4000.00 Lakh.

Salient Features:

The existing line is overloaded with 90% of the capacity and to have a second source of supply from newly created 220/66 KV Wagchipa substation to Masata, it is proposed to lay multi circuit 66 KV line from Wagchipa to Masat (approximately 15 KM). The said line is to be constructed in the present MYT control period. The estimated cost for carrying out the said work would be around Rs. 4000 Lakh. The implementation of the said scheme would result into reliability of power supply and strengthening of the existing network.

8. Name of Scheme: 66 KV line from Wagchipa to Dadra (10 KM).

Cost Rs. 2500.00 Lakh.

Salient Features:

The existing line is overloaded with 90% of the capacity and to have a second source of supply from newly created 220/66 KV wagchipa substation to Dadra, it is proposed to lay multi circuit 66 KV line from Wagchipa to Dadra (approximately 10 KM). The said line is constructed in the present MYT control period. The estimated cost for carrying out the said work would be around Rs. 2500 Lakh. The implementation of the said scheme would result into reliability of power supply and strengthening of the existing network.

9. Name of Scheme: Establishment of new 66/11 kV , 2x20 MVA substation at Sayali.

Cost Rs. 4000.00 Lakh.

Salient Features:

There is substantial load increase is expected due to establishment of medical college, sports complex, police training centre and industrialization in sayali area. There is no substation in the present location. Hence, a new GIS substation along with laying of 66 KV underground line is proposed to be constructed. In view of above, a new sub-station of 40 MVA load capacity would be carried out during the control MYT period with the latest technology i.e. GIS substation and underground cabling work. The estimated cost for carrying out the said

work would be around Rs. 4000 Lakh. The implementation of the said scheme would result into reduce the power interruption.

10. Name of Scheme: Establishment of new 66/11 kV, 2x20 MVA Substation at Silli.

Cost Rs.2500.00 Lakh.

Salient Features:

There is low voltage issue in silli, morkhal and randha area and the existing 11 KV feeders are very long in length to have a better and quality of power supply. In view of above, a new sub-station of 40 MVA load capacity would be carried out during the control MYT period with the latest technology i.e. GIS substation at Silli. The estimated cost for carrying out the said work would be around Rs. 2500 Lakh. The implementation of the said scheme would result into reduce the power interruption.

11. Name of Scheme: Conversion of double circuit 66 KV line from 220 kV Kharadpada to Masat substation from panther to TACSR (6 Kms).

Cost Rs. 270.00 Lakh.

Salient Features:

The existing overhead line is overloaded and having the panther conductor. In view of above, with an aim to strengthen with the capacity enhancement, it is proposed to lay TACSR conductor during the control MYT period. The estimated cost for carrying out the said work would be around Rs. 275 Lakh. The implementation of the said scheme would result into reduce the power interruption, reliability of supply, loss reduction.

12. Name of Scheme: Conversion of double circuit 66 KV line from 220 kV Kharadpada to Rakholi substation from panther to TACSR.

Cost Rs. 265.00 Lakh.

Salient Features:

The existing overhead line is overloaded and having the panther conductor. In view of above, with an aim to strengthen with the capacity enhancement, it is proposed to lay TACSR conductor during the control MYT period. The estimated cost for carrying out the said work would be around Rs. 275 Lakh. The implementation of the said scheme would result into reduce the power interruption, reliability of supply, loss reduction.

13. Name of Scheme: Conversion of double circuit 66 KV line from 220 KV Khadoli substation to Rakholi substation.

Cost Rs. 275 Lakh.

Salient Features:

The existing overhead line is overloaded and having the panther conductor. In view of above, with an aim to strengthen with the capacity enhancement, it is proposed to lay second circuit on existing structure as well as replacement of single circuit panther conductor by TACSR conductor during the control MYT period. The estimated cost for carrying out the said work would be around Rs. 275 Lakh. The implementation of the said scheme would result into reduce the power interruption, reliability of supply, loss reduction.

14. Name of Scheme: Renovation of Control room building and replacement of 66 KV breakers, isolator, CTs, PTs etc. at 66/11 KV substation Kharadpada.

Cost Rs. 400.00 Lakh.

Salient Features:

The existing Kharadpada substation is very old and it is required that the existing infrastructure replaced by new 66 KV breakers, isolator, CTs, PTs along with renovation of control room building. The proposed work would be carried out during the MYT control period. The estimated cost for carrying out the said work would be around Rs. 400 Lakh.

15. Name of Scheme: Other office assets, office automation and other equipment etc.

Cost Rs. 500.00 Lakh.

Salient Features:

Office equipment and assets are required to be procured in day to day operation. This includes computer, laptop, projector, furniture, communication and other office equipment, Moreover, office automation is required to be carried out, however, the same is not undertaken due to privatisation of electricity distribution business of the area of DNH. Hence, the office automation is also planned for the transmission activity. In view of above, an amount of Rs. 500 Lakh is estimated and projected for the said scheme.

16. Name of Scheme: Strengthening of old HT line (11 kV Mandoni Rural feeder) by new insulated ACSR HT conductor from Khanvel Substation to village Khedpa and Bedpa Vadpada.

Cost Rs. 1494.00 Lakh.

Salient Features:

The existing 11 KV mandoni figure is emanating from 66/11 KV khanvel substation and the length of main feeder plus tap lines feeding power to various villages and the area of surroundings is around 125 km. The existing conductor capacity is 36 mm square required to be replaced by 100 mm square dog conductor with erection of RSJ poles in long mid span for strengthening the feeder. The estimated cost for carrying out the said work would be around Rs. 1494 Lakh. The implementation of the said scheme would result into reduce the power interruption, reliability of supply and loss reduction.

17. Name of Scheme: Construction of new control room building at Dadra sub-station.

Cost Rs. 500.00 Lakh.

Salient Features:

The existing dada substation, control building is constructed in long back in year 1980. The said area is also having water logging problem in rainy reason due to new construction carried out in the area. Hence, a new elevated substation control building is proposed to be constructed. The design of the building is under the finalization by appointing a consultant. The said construction is to be completed under the MYT Control Period. The estimated cost for carrying out the said work would be around Rs. 500 Lakh.

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2 Funding Plan

The funding of the capital expenditure schemes as detailed above shall be done through own funds and by availing loans. The debt equity ratio of 70:30 shall be considered for financing the capital expenditure schemes.

Segregated Details for the following items:-

A) Actual and proposed expenses related to safety of man power i.e. procurement of safety equipment and training etc.

The actual expenses of FY 2020-21 were not available as the figures are in lum-sum amount and were not able to be bifurcated for this scheme but DNHPDCL has proposed expenses related to safety of man power for the Control Period shown in the table below :-

Years	Value
FY 2022-23	25 lakhs
FY 2023-24	25 lakhs
FY 2024-25	25 lakhs

B) Actual and proposed expenses related to CGRFs.

The actual expenses for CGRF are Rs 17.04 Lakhs. Also the proposed figures for the CGRFs have been escalated at a rate of 10% for the Control Period that is shown below in the table:-

Years	Value
FY 2022-23	18.75 Lakhs
FY 2023-24	20.62 Lakhs
FY 2024-25	22.70 Lakhs

C) Proposed expenses for training/skilling/reskilling of the man power:-

The proposed expenses for training/skilling/reskilling of the man power for the control period have been shown below in the table:-

Years	Value
FY 2022-23	25 lakhs
FY 2023-24	35 lakhs
FY 2024-25	35 lakhs

3 Projections for number of employees during the MYT Control Period FY 2022-23 to FY 2024-25

The projections of the number of employees for the MYT Control Period FY 2022-23 to FY 2024-25 based on the proposed recruitments and retirement have been given in the table below. In the said

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matter, it is also worth to mention here that the said projection is carried out as keeping the said entity as whole in the current structure. However, the electricity distribution business in the area of DNL is to be privatised in view of directive of GOI and it may have implication on the said projection.

Table 17: Projections of No. of Employees for the MYT Control Period FY 2022-23 to FY 2024-25

Financial Year	Manpower Strength (Regular, Deputation, Contractual, Work charge)	New Posts to be Created	Retirement
FY 2021-22	354	-	7
FY 2022-23	347	48	5
FY 2023-24	390	46	7
FY 2024-25	429	48	6

4 Proposed Trajectory of Availability of Wheeling Business (wires availability) and Supply Business (supply availability):-

The proposed trajectory of availability of Wheeling Business (wires availability) and Supply Business (supply availability) will be submitted along with the Tariff Petition for the MYT Control Period.


 Chief Engineer
 DNL Power Distribution Corporation Ltd.
 U.T. of Dadra & Nagar Haveli, Silvassa