CHAPTER – IV: UNION TERRITORIES (COMMERCIAL SECTOR)

Union Territory of Dadra and Nagar Haveli

DNH Power Distribution Corporation Limited

4.1 Purchase and Sale of Power by DNH Power Distribution Corporation Limited

Inadequate assessment of power requirements led to the Company purchasing power despite having adequate allocation of power from central generating stations. Further, poor management of PPAs resulted in avoidable or irregular expenditure of ₹ 371.30 crore as well as non-recovery of penalty of ₹ 8.63 crore. Non-compliance of Joint Electricity Regulatory Commission Regulations were noted in respect of security deposits, limit prescribed for power factor and frequency of field inspection.

4.1.1 Introduction

DNH Power Distribution Corporation Limited (the Company) was incorporated in July 2012 on unbundling of the erstwhile Electricity Department of the Union Territory of Dadra and Nagar Haveli (ED-DNH). The UT Administration notified (March 2013) the “Dadra & Nagar Haveli Electricity Reforms Transfer Scheme 2013” and transferred the electricity business including assets and liabilities of ED-DNH to the Company with effect from 1 April 2013. Accordingly, the Company is the distribution licensee for the Union Territory of Dadra and Nagar Haveli (UT) and is vested with responsibility for distribution and supply of electricity in the Union Territory. The Company commenced commercial operations from 1 April 2013 with 60,744 consumers with a total contracted demand of 1,051 MW[1]. As on 31 March 2017, there were 70,300 consumers with contracted demand of 1228.20 MW.

An audit was undertaken to ascertain whether demand of power was properly assessed and whether purchase of power as well as its transmission and distribution was planned and carried out efficiently, effectively and economically. The audit covers scrutiny of long term Power Purchase Agreements (PPAs), short term power purchases and examination of operational efficiency in billing, collection and monitoring during the period 2013-14 to 2016-17.

[1] MW-Mega Watt.

4.1.2 Audit findings

4.1.2.1 Planning for procurement of power

The Company does not have its own captive generation plants and procures power from Central Generating Stations (CGS) such as NTPC Limited (NTPC), Nuclear Power Corporation India Limited (NPCIL), Ratnagiri Gas and Power Private Limited (RGPPL) and NTPC-SAIL Power Company Limited (NSPCL) and from private parties such as M/s EMCO Energy Limited (EMCO). Long Term PPAs were executed during May 2003 to May 2011 with eight CGS (six generating stations of NTPC, NSPCL and RGPPL) and with EMCO (March 2013).

(a) Purchase of power from EMCO despite having adequate allocation of power

The number of consumers, total demand (connected load and contract demand) and availability of power during the last four years ended 31 March 2017 is given in the **Table No. 1** below:

Table No. 1: Power Allocation and Demand for Power

S. No.	Particulars	As on 31 March			
		2014	2015	2016	2017
1.	Allocation from CGS and other regions (MW)	930.45	899.00	871.00	911.00
2.	PPA with EMCO Energy limited (MW)	200.00	200.00	200.00	200.00
3.	Total power allocation (MW)	1130.45	1099.00	1071.00	1111.00
4.	Contracted demand from consumers (MW)	1051.52	1098.85	1122.54	1228.20
5.	Average Peak demand/running load (MW)	643.00	678.00	722.00	624.00
6.	Maximum peak demand (MW)	775.00	743.00	781.00	784.00
7.	Percentage of power allocation over and above average peak demand (*per cent*) {(S. No. 1 – S. No. 5) x100/S. No. 5}	45	33	21	46

The Company had secured firm allocation of power in excess of the maximum peak demand in the all the four years from CGS. The allocation from CGS and other regions was 21 to 46 *per cent* more than the average peak demand during the same period and any short fall in this allocation/availability of power could be met from unscheduled interchange (UI) upto 12 *per cent* of the total scheduled power. Audit observed that despite having sufficient allocation, the ED-DNH executed (21 March 2013) a Power Purchase Agreement (PPA) with EMCO for the purchase of 200 MW power for a period of seven years and three months with effect from 1 April 2013 and paid ₹ 1,564.03 crore during 2013-14 to 2016-17 towards fixed charges besides ₹ 1,190.42 crore as energy charges for procurement of electricity.

Management stated (June 2017) that the allocation of power was higher than the running load looking to the demand of the territory as all the plants are not compulsorily available in the system and generate power regularly. The

Company was unable to get full quantum of allocated power and continuous over drawl was not permissible. Due to open access, there was surplus power which was sold through NTPC on 50-50 sharing basis. It added that the Administration of UT of DNH has taken up with Ministry of Power for surrender of surplus power.

The reply is not tenable as there was no justification for entering into the PPA with EMCO in view of the firm allocation of power from CGS and it was evident that it had been entered into without conducting any scientific study for assessing the requirement of power.

(b) Non-levy of penalty for shortage in availability of capacity

Clause no. 4.2.5 of schedule 4 of PPA entered into with EMCO (March 2013) provide for penalty to be levied if the availability of power for a contract year falls below 80 *per cent* and Clause 4.2.4 provides incentive in case of availability exceeding 85 *per cent.* Review of records revealed that during the contract year (April 2013 to March 2014), the Company had incorrectly treated the actual capacity made available by EMCO as contracted capacity and the availability factor was worked out as 99.16 *per cent* to 100 *per cent* against the actual availability factor of 67.26 *per cent* in July 2013 and 45.90 to 55.04 *per cent* during November 2013 to March 2014. Details of contracted capacity and contracted capacity adopted by the company during the contract year April 2013 to March 2014 is given in the **Table No. 2** below:

Table No. 2: Details of contracted capacity and capacity adopted by the company

Sl. No.	Period	Contracted capacity as per PPA (MW)	Contracted Capacity adopted by the Company (MW)
1.	April 2013	100	100
2.	May 2013	100	100
3.	June 2013	100	100
4.	July 2013	150	101.75
5.	August 2013	150	150.00
6.	September 2013	150	150.00
7.	October 2013	200	200.00
8.	November 2013	200	101.94
9.	December 2013	200	91.66
10.	January 2014	200	91.10
11.	February 2014	200	110.09
12.	March 2014	200	109.93

The available capacity remained less than the prescribed limit in July 2013 and from November 2013 to March 2014. Thus, instead of levying penalty of ₹ 8.63 crore, the Company paid an incentive of ₹ 3.13 crore due to incorrect adoption of contracted capacity. This resulted in non-levying penalty of ₹ 8.63 crore as well as irregular expenditure of ₹ 3.13 crore.

Management stated (May 2017) that EMCO was not able to obtain the open access to supply full quantum of power due to constraints of the transmission system of Power Grid Corporation of India Limited (PGCIL) and the Company

has not paid the capacity charges for the quantum for which Open Access was not granted by PGCIL.

The reply of the Management did not address the issue of incorrect adoption of contracted capacity. Further as per the PPA, penalty was to be paid by EMCO in addition to capacity charges that were payable on proportionate basis.

(c) Avoidable payment of capacity charges to NSPCL

The Company had a long term PPA (October 2007) with NTPC-SAIL Power Company Limited (NSPCL) for purchase of 100 MW power. In December 2012, the Company entered into a Supplementary Agreement (SA) for additional 65.5 MW for the period from April 2013 to March 2014. Though the Company had Medium Term Open Access (MTOA) from Power Grid Corporation Ltd (PGCIL) for additional 40.5 MW, the Company entered into SA for 65.5 MW without ensuring the arrangements for evacuation of the balance 25 MW. The request made (December 2012) by the Company for MTOA for 25 MW was rejected (April 2013) by PGCIL. This resulted in non-drawing of power of 25 MW from April 2013 to February 2014 and avoidable payment of ₹ 29.13 crore towards capacity charges.

Management stated (May 2017) that the matter of rejection of MTOA by PGCIL was intimated to NSPCL and was also discussed the issue in the 64th Meeting (May 2013) of the Western Regional Power Committee (WRPC). The Standing Committee of WRPC stated that the charges have to be paid. The CERC had also dismissed (October 2013) the petition of the Company. The appeal (December 2014) of the Company before the Appellate Tribunal for Electricity (APTEL) was pending (May 2017).

The fact remains that the Company incurred avoidable payment of ₹ 29.13 crore due to lack of proper assessment of the availability of MTOA before entering into supplementary agreement for additional 65.5 MW.

(d) Short-scheduling[2] due to unjustified sanction of STOA

As per the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Open Access in Transmission and Distribution) Regulations, 2009, Short-Term Open Access (STOA) shall be allowed if open access[3] can be accommodated by utilizing (i) inherent design margins, (ii) margins available due to variation in power flows, and (iii) margins available due to in-built spare transmission capacity created to cater to future load growth.

As per clause 2.1.8 of the procedures notified for according STOA by the UT Administration, consent from the distribution licensee is mandatory for according sanction for open access. Audit noticed that the Company accorded

[2] Scheduling of power – is the availability of power fixed by WRLDC for drawl in each time block.

[3] Open access user means a person permitted to use intra-State transmission system or receive supply of electricity from a person other than the distribution licensee of his area of supply.

short term open access for purchase upto 323 MW capacity power to 22 HT consumers during the period May 2016 to March 2017. The sanction of STOA resulted in reduction of demand from the consumers who had been sanctioned STOA as they purchased power from other sources and the Company had to reduce the scheduling of power from the firm sources. The Company approached NTPC, NSPCL and the Ministry of Power for surrender of allocated power/electricity. NSPCL and NTPC refused to accept the Company's request for surrender of allocated power/electricity.

As per the PPAs entered with the parties and the National Tariff Policy Resolution (NTPR) issued by the Union Ministry of Power, the excess available power with a licensee (power procurer) can be permitted to be sold by the seller and the generator and power procurer would share the gains realized from sale, if any, of such Un-Requisitioned Surplus[4] (URS) power in the ratio of 50:50 in the absence of any related provision in PPA.

During the period April 2016 to March 2017, the Company incurred ₹ 805.40 crore towards fixed charges for procurement of 3933.7 million kwh but scheduled only 2,014.36 million kwh which resulted in under recovery of fixed charges. Thus, due to allowing STOA and resultant short scheduling, the Company could not recover fixed charges amounted to ₹ 384.32 crore. This resulted in avoidable payment of ₹ 326.86 crore after adjusting the URS revenue of ₹ 17.35 crore and STOA charges of ₹ 40.11 crore.

Management stated (June 2017) that the STOA was sanctioned within the contract demand of the respective consumers. Due to the implication of open access, the power remained surplus and hence consent was given to sell the URS power.

The reply is not tenable as the Company has to consider the effects of granting STOA and take appropriate action to avoid possible losses.

(e) Non-availing of full rebate on billing for power purchase

As per clause 8.3.6 of the PPA (March 2013) with EMCO, the seller would raise a provisional invoice on the last business day of the month and if the Company makes the payment on the first day of the next month, a rebate of 2.25 *per cent* of the amount will be admissible to the company. Further rebate amount would reduce at the rate 0.05 *per cent* for each day up to the fifth day of the month. The rebate of two *per cent* would be provided if the payment to EMCO is made within one day of presentation of final monthly bill.

Audit noted that during 2013-14 to 2016-17, the Company did not obtain provisional invoice and the monthly bills raised by the seller in the first week of the next month were settled within due dates and a rebate of only two *per*

[4] URS - Un-Requisitioned Surplus power is the power available for the licensee as per the PPA but not scheduled due to less demand.

cent was availed as per PPA. In the absence of obtaining provisional invoice from EMCO, the Company had to forgo additional saving of ₹ 5.91 crore on account of additional rebate of 0.25 *per cent*.

Management replied (May 2017) that the seller has not issued provisional bills on the last day of the month. However, Company availed 100 *per cent* rebate mechanism for all the payments made towards power procurement and hence the additional rebate could not be availed.

The reply of the Management is not tenable as no action was taken by the Company for ensuring provisional bills on the last business day of the month to avail of the maximum rebate.

(f) Avoidable payment of Reactive Energy Charges[5]

As per Regulation 6.6 (1) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (Grid Code), reactive power compensation should ideally be provided locally by generating reactive power as close to the reactive power consumption as possible. In case licensees draw reactive energy when the grid voltage is not between 97 and 103 *per cent*, penalty will be levied by WRLDC at specified rates. As such, the licensee should install capacitor banks at appropriate locations to maintain proper voltage and reduce the drawal of reactive energy from the grid. However, the Company had not installed capacitor banks to compensate the reactive energy in the low voltage lines and incurred avoidable reactive energy charges of ₹ 6.27 crore during the period 2013-14 to 2016-17.

Management stated (May 2017) that a study of transmission and distribution network was being carried out by engaging (September 2014) PGCIL and the company would plan for capacitors and reactors after getting their report.

The reply of the Management is not acceptable as the clause for installation of capacitor banks was already envisaged in the CERC regulations in the year 2010 itself and the Management should have taken expeditious action in the wake of levy of reactive energy charges by the Western Regional Power Committee (WRPC).

4.1.2.2 Monitoring and Control

The Company has to ensure that there is no unauthorized use/theft of power by instituting suitable mechanisms for regular inspection of consumer premises for checking of metering equipment and electrical installations.

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[5] REC is the penal charges payable by the licensee for drawl of VAr compensation when the voltage is not in the specified limits.

(a) Shortfall in field inspection

As per Regulation 7.4 of Joint Electricity Regulatory Commission (Electricity Supply Code) Regulations 2010, inspection/testing of the consumer meters (LT, HT, EHT) should be conducted as per prescribed periodicity and records of these test results should be maintained in accordance with Central Electricity Authority (Installation and operation of Meters) Regulations 2006.

As against 61,008 inspections (LT 57,333 and HT/EHT 3,675) to be conducted during the years 2013-14 to 2016-17 the Company had conducted only 190 inspections. Further, of the 190 inspections, 186 inspections were in the premises of LT three phase and HT/EHT consumers and the inspection conducted in the premises of single phase consumers were negligible. The shortfall in field inspections ranged between 92 and 100 *per cent*.

Management stated (June 2017) that the field inspections could not be carried out by its Lab & Vigilance Section due to man power shortage.

(b) Non replacement of defective meters of LT consumers

As per Regulation 7.3(1) of Joint Electricity Regulatory Commission (Electricity Supply Code) Regulations 2010, if the Company fails to keep the meter or metering equipment in proper working condition, the consumer shall not be liable to pay the meter rent for the period the meter remains defective.

As per the amended Regulations (August 2013), in case of faulty meter, average consumption is to be billed based on the consumption of the corresponding month of the previous year. In case the consumption of the corresponding month is not available, average of the previous 12 months was to be considered. It was noticed that due to defective meters, 3,865 consumers were billed on average consumption during March 2017. During the period 2013-14 to 2016-17, 1,15,323 bills were issued on average consumption basis, of which 55,532 bills were issued to 2,805 consumers for periods ranging from 13 to 48 months.

As per Regulation 8.1(15), the defective meter should be replaced immediately. Since the billing system does not provide any data relating to replacement of meters, audit could not ascertain whether the reported faulty meters were replaced within a reasonable time. Further, contrary to the provisions of the Regulations, the Company levied ₹ 16 lakh towards meter rent in 1,12,640 bills which had defective meters.

Management stated (August 2017) that the Company is in the process of purchasing the meters and will complete the replacement by the end of this financial year. Further necessary conditions will be included in the software for non-recovery of meter rent during defect in meter.

Though the Management has indicated that it is in the process of initiating rectificatory steps, the fact remains that 2,805 consumers were billed on average consumption for more than 12 months during the period 2013-14 to 2016-17.

(c) Non-monitoring of adherence to the limits prescribed in respect of Power Factor[6]

As per the Joint Electricity Regulatory Commission (Electricity Supply Code) Regulations 2010, the HT/EHT consumers should maintain a Power Factor (PF) of 90 *per cent* and above. PF incentive in 2015-16 and 2016-17 was to be paid to HT/EHT consumers at the rate of one *per cent* (0.50 *per cent* for the year 2013-14 and 2014-15) for every one *per cent* addition to the PF in excess of 95 *per cent* and a penalty is levied at the same rate if the PF falls below 90 *per cent*. If the average power factor falls below 70 *per cent* (lagging) consecutively for three months, the Company may disconnect the HT consumer's service connection. Scrutiny of records/data of HT/EHT and LT consumer billing revealed the following:

(i) 194 HT/EHT consumers registered a power factor of less than 70 *per cent* (lagging) consecutively for three months during the period 2013-14 to 2016-17. In case of nine consumers, power factor recorded constantly below 70 *per cent* between April 2013 and March 2017. The Company did not initiate any action to disconnect these connections. Further, the Company could not recover any penal charges from these consumers for the drop in PF below 70 *per cent*. Non-disconnection has resulted in continued non-compliance of the Regulation and undue benefit to the consumers besides non-recovery of penalty.

Management stated (August 2017) that due to paucity of field staff and overload, no disconnections were made in respect of HT consumers whose PF was less than 70 *per cent*.

(ii) As per Regulation 4.6 (2) (a), supply to LT installation with induction motor(s) of capacity of 3 Horse Power and above was not be provided unless Low Tension Shunt Capacitor was installed to ensure power factor not less than 90 *per cent*. Analysis of data revealed that shunt capacitor was not installed for 123 LT consumers with connected load of more than three HP. Further, though the licensee (the Company) has the right to install the capacitor and to recover the cost, the Company has not initiated any action to install the capacitors.

[6] Power Factor means the average monthly power factor and shall be the ratio expressed as a percentage of the total kilowatt hours to the total kilovolt ampere hours (KVAH) supplied during the month; the ratio being rounded off to two decimal figures.

Management replied (August 2017) that in case of LT consumers installation of capacitors is mandatory and installation of capacitors were being effected at the time of release of connection.

The fact remains that 123 LT consumers did not have the shunt capacitors installed.

(d) Non-compliance of JERC Regulation in respect of Security Deposit

As per Clause 6.10 of the Joint Electricity Regulatory Commission (Electricity Supply Code) Regulations 2010, the Company collects security deposit from consumers for energy charges equivalent to the estimated consumption for three months from agricultural consumers and two months from seasonal and other consumers. This is reviewed half yearly and annually on the basis of consumption during the previous six months and twelve months for HT/EHT and Low Tension consumers respectively and additional security deposit is to be collected/refunded for deviations of more than 20 *per cent* of the amount of security deposit held by the licensee. Scrutiny of data made available by the Company revealed that:

(i) No SD was available in consumer data base for 91 HT/EHT consumers amounting to ₹ 7.61 crore calculated based on bills from April 2016 to September 2016. Further, as per the consumption for this period, there was a short fall in SD in respect of 73 HT/EHT consumers which worked out to ₹ 10.29 crore.

(ii) Data was not captured in the data base for 42,762 LT consumers by the Company. Hence, Audit could not verify the collection of prescribed SD.

(iii) Consumer-wise details for meter number and consumer number was not reconciled with security deposit of ₹ 16.58 crore that was collected from the UT Administration. In the absence of this data, the Company could not transfer the interest on SD to the concerned consumers.

(iv) Security deposit for ₹ 40.21 crore was accepted as Fixed Deposit Receipts from 720 HT consumers instead of in the prescribed form such as cash, cheque/draft and bank guarantee.

Management stated (August 2017) that the Company obtained security deposit from consumers at the time of release of connection as well as at the time of release of additional load and review is done regularly for HT consumers and additional security deposit is being collected. In case of LT consumers, review was not possible as the data base was not available.

The Management reply that LT consumer review was not possible points to a lacunae in the data collection and collation. Further, Management has not addressed the other deficiencies viz. non-capturing of data, security deposit taken in the form of fixed deposit receipts and non-accountal and non-reconciliation of security deposit received from the UT Administration.

4.1.3 Conclusions

The Company failed to ensure proper assessment of its power requirements which resulted in entering into PPAs for power that was not required. This involved payment of fixed charges as well as procurement of power of ₹ 2,754.45 crore between 2013-14 and 2016-17. Further, poor implementation of PPAs resulted in avoidable or irregular expenditure totalling ₹ 371.30 crore due to incorrect adoption of contracted capacity, unjustified sanction of short term access, avoidable payment of capacity charges, reactive energy charges and non-availing of rebate. In addition it failed to levy penalty of ₹ 8.63 crore.

In the light of the audit findings, the Management as well as the Administrator of the Union Territory should review the process of entering into PPAs and of their implementation so as to ensure that possibilities of such avoidable expenditure are obviated and responsibility fixed where necessary.

The audit observations were reported to the Administrator of Union Territory of Dadra & Nagar Haveli in October 2017; their reply was awaited (December 2017).

New Delhi
Dated: 22 February 2018

(MAMTA KUNDRA)
Director General of Audit
Central Expenditure

Countersigned

New Delhi
Dated: 23 February 2018

(RAJIV MEHRISHI)
Comptroller and Auditor General of India