Chapter VI

Other Issues

Non-generation of IT system based meter read plan

6.1 The model document[1] of both the IT billing systems provide that the system should generate meter reading plan for day/week/fortnight by meter readers and provide it to the respective authorities. For generating the meter reading plan, the system should take care of the number of meter readers available with the customer and their productivity for coverage of all meters before the due date. The business logic shall be provided by the owner and the owner should have flexibility to modify the same. After generation of the plan the same shall be sent to the respective offices by e-mail/other mode, so that the meter reader can download the site/premise addresses of the meters to be read on that day.

Audit noticed that no such meter reading plan was generated as no records related to system based planning of meter reading was furnished to Audit. During field visit to the sampled divisions, it was also noticed that in every division the meter readers were deployed randomly for consumers' meter reading. On analysis of consumer data of March 2019, the following were observed:

(i) In R-APDRP billing system, the meter readings were recorded ranging from 1 to 3,801 meter reads by meter readers during the month of March 2019 of urban areas against prescribed 1,500 meter reads by each meter reader. Further, in the data of non R-APDRP billing system, no identical field was found incorporated to identify the ID of meter readers;

(ii) Against 2,58,04,464 in-service consumers (R-APDRP: 66,86,222 and non R-APDRP: 1,91,18,242) of both the IT billing systems, only 2,02,67,194 consumers (R-APDRP: 51,84,106 and non R-APDRP: 1,50,83,088) were billed by meter readers *i.e.* 78.54 *per cent*; and

(iii) Against 2,02,67,194 meter reading (R-APDRP: 51,84,106 and non R-APDRP: 1,50,83,088) by the deployed meter readers, in 6,74,134 cases (R-APDRP: 62,451 and non R-APDRP: 6,11,683) the meter readings were faulty and were shown under the status of 'Read Defective' remark.

Thus, due to non-availability of system-based meter read plan the meter readers were deployed randomly. Further, the deficient coverage of billable consumers and higher percentage of inaccurate billing adversely affected the billing and collection efficiency resulting in increase in AT&C losses of the DISCOMs.

The Company stated (July 2020) that billing agencies normally bill using their own developed area code and walking sequence. Each month meter readers follow the same billing sequence. In cases where meter readers generate abnormally high readings, it is due to bunch of connections at multi-storied buildings. It further stated that billing shortage is primarily due to shortage of meter readers and duplicate/ghost consumers and penalty for the same is being levied.

The reply is not acceptable as the fact remains that the meter read plan was not generated through the implemented IT billing systems and followed for

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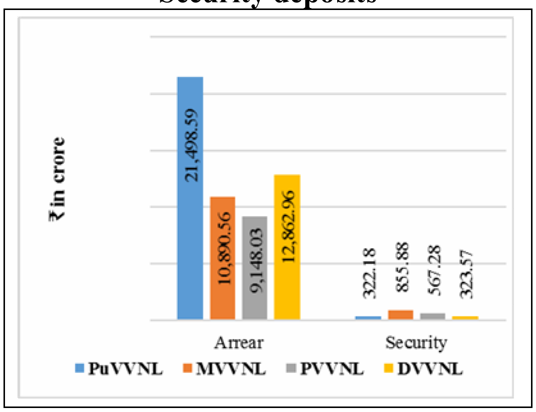
[1] R-APDRP: Clause M8 of SRS and Non R-APDRP: Clause M.7 of RFP.

covering maximum consumer meters. Further, the Company itself accepted the fact of shortage of meter readers which adversely affected the billing of the consumers.

Non-realisation of outstanding amount from 'in-service' consumers

6.2 Clause 4.36 of the Code provides that the supply shall be disconnected temporarily, only after due diligence, if electricity bills on account of charges of electricity or any sum other than a charge for electricity are not paid within the number of days indicated in the notice served, on the disconnection date indicated in the notice served to the consumer but not less than 15 days. Further, Clause 4.20 provides that the Company shall maintain a security deposit equal to two months estimated power consumption of all the consumers to safeguard the interests of the licensee.

Chart 6.1: Consumer Arrears vis-a-vis Security deposits



Source: Based on analysis of data provided by the Company

Audit noticed that as on March 2019, the Company had arrears of ₹ 54,400.13 crore (R-APDRP: ₹ 10,099.82 crore and non R-APDRP: ₹ 44,300.31 crore) from 2,26,15,303 consumers (R-APDRP: 52,34,532 and non R-APDRP: 1,73,80,771) under both the IT billing systems out of 2,58,04,464 (R-APDRP: 66,86,222 and non R-APDRP: 1,91,18,242) in-service consumers against which the Company had security deposit of ₹ 2,068.91 crore (R-APDRP: ₹ 739.82 crore and non R-APDRP: ₹ 1,329.09 crore), as depicted in **Chart 6.1**.

Out of total 2,26,15,303 (R-APDRP: 52,34,532 and non R-APDRP: 1,73,80,771) defaulting consumers, 1,04,95,188 consumers (R-APDRP: 52,10,071 and non R-APDRP: 52,85,117) (46.41 *per cent* of total defaulting consumers) with arrears of ₹ 15,775.39 crore (R-APDRP: ₹ 10,068.62 crore and non R-APDRP: ₹ 5,706.77 crore) (29 *per cent* of total arrears), were having last payment date and the remaining 1,21,20,115 consumers (R-APDRP: 24,461 and non R-APDRP: 1,20,95,654) (53.59 *per cent* of total defaulting consumers) with arrears of ₹ 38,624.74 crore (R-APDRP: ₹ 31.20 crore and non R-APDRP: ₹ 38,593.54 crore) (71 *per cent* of total arrears) were not having any last payment date mentioned in the data of both the IT billing systems. In absence of any last payment date the position of 1,21,20,115 defaulting consumers (R-APDRP: 24,461 and non R-APDRP: 1,20,95,654) could not be analysed by Audit. Further, age-wise analysis of consumers' arrears, where the last payment date was found in the data, are detailed in **Appendix-6.1**.

Out of 1,04,95,188 defaulting consumers (R-APDRP: 52,10,071 and non R-APDRP: 52,85,117) having last payment date, 40,63,580 consumers (R-APDRP: 14,37,549 and non R-APDRP: 26,26,031) with arrears of ₹ 11,064.43 crore (R-APDRP: ₹ 6,714.98 crore and non R-APDRP: ₹ 4,349.45 crore) continued defaulting payments of their monthly bills for more than three consecutive months (ranging from 3 months to more than 12 months) against which, the available security was ₹ 263.13 crore (R-APDRP: ₹ 97.15 crore and Non R-APDRP: ₹ 165.98 crore) only (*i.e.* 2.38 *per cent*). As the Company maintains two months' security deposit and 15 days are provided for disconnection, a maximum period of three months could have been considered for making temporary disconnection. In order to safeguard business interest, the Company should have initiated timely action of temporary disconnection against these defaulting consumers so that default in payment of ₹ 11,064.43 crore could have been minimised. Audit noticed that the Company failed to make temporary disconnection of these 40,63,580 consumers in violation of the provisions of the Code. In addition to this, the Company also did not charge reconnection and disconnection charges (at the rate of ₹ 600 per case) of ₹ 243.81 crore (R-APDRP: ₹ 86.25 crore and non R-APDRP: ₹ 157.56 crore) from these consumers.

The Company stated (July 2020) that there are many consumers in both the IT billing systems whose security deposit is wrong or deficient and the major portion of arrears is in the rural areas. It further stated that reconnection/ disconnection charges are levied in offline manner by the concerned divisions. In case of non R-APDRP, it stated that in many cases the last payment date was not found in the data of the IT billing system mainly due to the fact that prior to 2017 the batch mode billing was in practice in which there was provision of last payment date but during the transitional phase the data has not come up on the Non R-APDRP system.

The reply is not correct as out of total arrears of ₹ 11,064.43 crore (arrear for more than three months), ₹ 6,714.98 crore, *i.e.* 60.69 *per cent* pertains to urban consumers only. The Company had accepted that the system is deficient to charge reconnection/disconnection charges online. Further, it was the basic requirement to migrate complete consumer data to the Non R-APDRP system, but the Company failed to migrate the crucial data related to the consumers.

In the Exit Conference (March 2021), the Government stated that the issue had been in its knowledge and remedial action was being taken.

Non-execution of permanent disconnections

6.3 Clause 4.38 (b) of the Code provides that the supply shall be disconnected permanently if the cause for which the supply was temporarily disconnected is not removed within a six-month period.

Audit noticed that as on March 2019, there were 5,20,772 consumers (R-APDRP: 3,73,306 and non R-APDRP: 1,47,466) under both the IT billing systems, having outstanding dues amounting to ₹ 3,441.21 crore (R-APDRP: ₹ 2,808.63 crore and non R-APDRP: ₹ 632.58 crore) under temporary disconnected (TD) status from last six months continuously against whom permanent disconnection (PD) could not be initiated as per provisions. Further, both the IT billing systems were also not able to generate system alerts for such consumers as despite lapse of more than six months' period the status of such consumers still reflected under TD. Thus, in absence of system alert and proper monitoring at the division level, timely action against such consumers could not be initiated which has resulted in avoidable piling up of dues of ₹ 3,441.21 crore (R-APDRP: ₹ 2,808.63 crore and non R-APDRP: ₹ 632.58 crore).

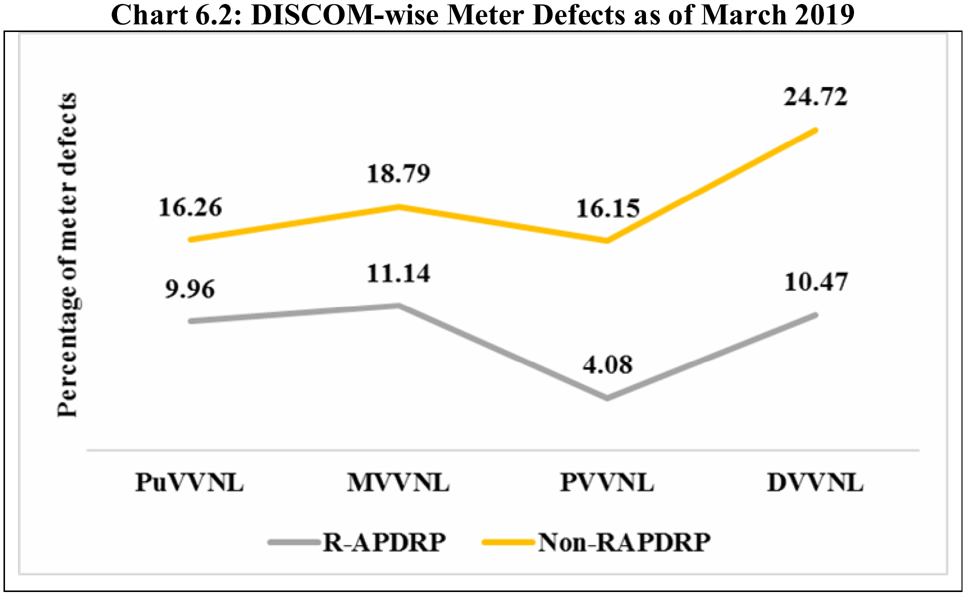
The Company stated (July 2020) that the system generates TD and reconnection reports and by this, connections disconnected for more than six months can be monitored. It further stated that the TD in the system does not imply that consumers PD has not been initiated earlier, since PD through the system was complex which has now been simplified. The fact remains that the Company failed to permanently disconnect the TD consumers within the stipulated six-month period.

High percentage of meter defects

6.4 Clause 7.18 of the Code provides that the Licensee shall maintain the percentage of defective meters to the total number of meters in-service, at a value not greater than three *per cent*.

Audit noticed on analysis of billing data for the month of March 2019, that out of 2,58,04,464 in-service consumers (R-APDRP: 66,86,222 and non R-APDRP: 1,91,18,242) under both the IT billing systems, the billing status of 41,04,994 consumers (R-APDRP: 5,47,833 and non R-APDRP: 35,57,161) were ADF, CDF, IDF & RDF[2] and the defect percentage was 15.91 *per cent* which was much higher than the provided limit. The DISCOM-wise meter defects as on March 2019 is depicted in **Chart 6.2**:

Chart 6.2: DISCOM-wise Meter Defects as of March 2019



Source: Based on analysis of data provided by the Company

[2] ADF: Appear defective, CDF: Ceiling defective, IDF: Identified defective, RDF: Read defective.

Thus, such a higher percentage of meter defects adversely affected the billing and collection efficiency which not only resulted in defective billing but also ultimately affected the AT&C losses.

In the Exit Conference (March 2021), the Government, while accepting the fact of large number of defective meters, assured that suitable provisions would be made to address the meter defects. It further stated that the number of IDF meters against total in service consumers for the financial year 2020-21 has substantially reduced.

Non-installation of pre-paid metering

6.5 The Board of Directors resolved (129th meeting dated June 2017) to install prepaid meters in the connections of Government consumers falling under LMV-4(A) category in order to avoid issues like non-availability of sufficient fund, defective meters, non-adjustment of delayed payment of outstanding dues and non-passing of invoices timely.

Audit noticed that as on March 2019, the total number of LMV-4(A) consumers was 69,794, whereas only 39 consumers (R-APDRP) were having prepaid meters installed as per billing data. The outstanding dues against these consumers were ₹ 554.32 crore. The Company failed to install pre-paid meters for 69,755 LMV-4(A) consumers due to delay in providing technical details for mapping of rules like delay in providing detailed scope and design documents (on 20 January 2016), migration of backend customer data (17 May 2017) and integration of technical specification (on 1 May 2017). Thus, non-installation of pre-paid meters resulted in delayed verification of bills by consumers, delayed collection of revenue from consumers of ₹ 554.32 crore as on March 2019 and increase in AT&C losses. In addition, Government consumers were also deprived of benefits of rebate to be allowed to prepaid metered consumers of ₹ 120.61 crore **(*Appendix-6.2*)**.

The Company accepted the audit observation and stated (July 2020) that Government consumers do not lie only in LMV-4A category but many are in LMV-1 also. Prepaid meters on a total of 11,000 consumers have already been installed. Now the installed Smart Meters have been configured and integrated with the billing systems with user-friendly recharge options. Hence from now onwards, large scale prepaid meters are going to be installed on Government connections.

The reply is not convincing as personal residential connection of government employees which do fall under LMV-1 cannot be said to be government connection. Further, the fact remains that the Company could not install prepaid meters at all government connections as was directed. The Company must devise an actionable plan consisting of suitable milestones and timelines for installing prepaid meters for all the Government consumers in the State of Uttar Pradesh.

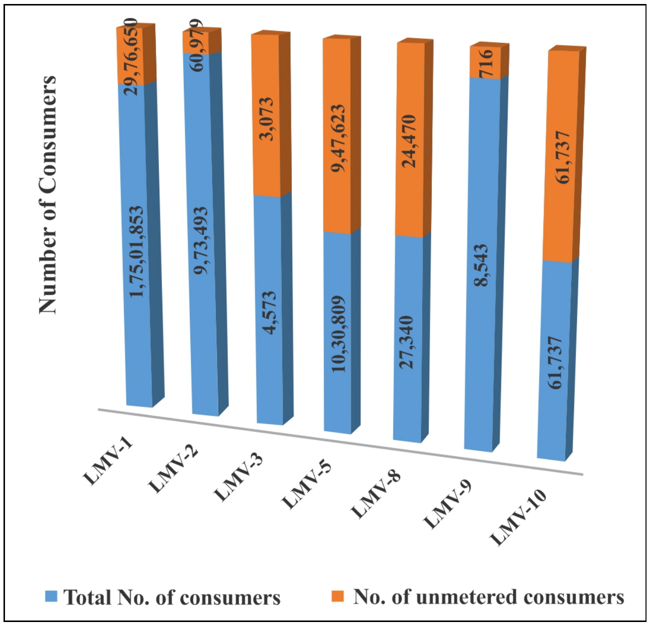
Assessment based consumption

6.6 Section 55 of the Electricity Act provides that no licensee shall supply electricity after the expiry of two years from the appointed date except through installation of a correct meter. Further, Chapter 5 of the Code also provides that the Licensee shall not supply electricity to any person except through installation of a correct meter.

UPERC also issued directions[3] regarding achievement of 100 *per cent* metering by March 2018 and in case of unsatisfactory progress, directed to fix responsibility of the concerned officers.

In the Performance Audit Report of 2016 at paragraph 2.1.20, Audit pointed out that the Company defaulted in attaining the objective of 100 *per cent* metering of all the connections in the towns covered under the R-APDRP.

Chart 6.3: Unmetered Consumers as on March 2019



Source: Based on analysis of data provided by the Company

During the present Audit, it was again noticed that the DISCOMs were having unmetered connections in categories of LMV-1, 2, 3, 5, 8, 9 and 10 during the period 2014-15 to 2018-19, ranging from 40,75,248 to 71,16,742 (*i.e.* 5.39 *per cent* to 100 *per cent* in respect of total number of consumers of particular category). As depicted in **Chart 6.3**, out of the total 1,96,08,348 consumers as on March 2019, of categories mentioned above, 40,75,248 unmetered connections with contracted load of 11,092.72 MW were still present in the system, the consumption of which during 2018-19 was 24,118.89 MU (calculated on assessment basis by the Company) (**Appendix-6.3**). During field visit to sampled divisions, Audit also noticed that despite receiving the meter cost from LMV-5 category of consumers, the divisions did not install any meter on the connections. Further, no efforts were made by the divisions for converting the existing unmetered connections into metered connections. This resulted in inaccurate calculation of consumption and increase in AT&C loss.

The Company accepted (July 2020) the fact and stated that as on date there are around 15-20 lakh unmetered connections which was 65-70 lakh two years back.

Conclusion

In the present audit it has been found that the Company's internal controls leave much to be desired as evidenced by the failure of the Company to deploy IT billing systems in generation of meter-read plan for optimisation of billing, monitoring of realisation of arrears, execution of permanent disconnection and raising bills on actual consumption basis. The continued and increasing level of commercial losses of the

[3] vide orders dated October 6, 2016 and November 28, 2016.

Company/DISCOMs is testimony of the inadequacy/failure in controls of the entities.

Recommendation

Recommendation Number	Recommendation	Response of Government
8	The Company should strengthen the internal control mechanism with respect to proper monitoring of the billing systems including proper issuance of bills and recovery of energy charges from defaulters/ permanently disconnected consumers to safeguard the interest of the Company/DISCOMs.	Accepted

Lucknow
The 30 July 2021

(JAYANT SINHA)
Principal Accountant General
(Audit-II),
Uttar Pradesh

Countersigned

New Delhi
The 2 3 AUG 2021

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India