सत्यमेव जयते

Performance Audit Report of the Comptroller and Auditor General of India on Performance of DISCOMs pre and post Ujwal DISCOM Assurance Yojana (UDAY)

भारत के नियंत्रक एवं महालेखापरीक्षक ✦ COMPTROLLER & AUDITOR GENERAL OF INDIA

SUPREME AUDIT INSTITUTION OF INDIA

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GOVERNMENT OF UTTAR PRADESH

Government of Uttar Pradesh

Report No. 1 of the year 2024

Performance Audit Report of the Comptroller and Auditor General of India
on
Performance of DISCOMs pre and post Ujwal DISCOM Assurance Yojana (UDAY)

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(Performance Audit)

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Preface

The Report has been prepared for submission to the Governor of Uttar Pradesh under Article 151 of the Constitution of India.

This Report of the Comptroller and Auditor General of India contains results of 'Performance Audit on Performance of DISCOMs pre and post Ujwal DISCOM Assurance Yojana (UDAY)', covering the period 2015-16 to 2020-21 (updated up to October 2022).

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

EXECUTIVE SUMMARY

Executive Summary

Why did we take up this audit?

Ministry of Power (MoP), GoI launched the Ujwal DISCOM Assurance Yojana (UDAY) in November 2015 with the objective of financial and operational turnaround of DISCOMs.

A tripartite Memorandum of Understanding (MoU) was signed on 30 January 2016 amongst MoP, GoUP and Uttar Pradesh Power Corporation Limited (UPPCL) on behalf of five DISCOMs of the State of Uttar Pradesh for achieving the financial and operational milestones as described in the UDAY Scheme.

The Scheme envisaged takeover of outstanding debts and funding of future losses of DISCOMs. GoUP was required to takeover debt of DISCOMs of ₹ 44,403.89 crore (75 *per cent* of total outstanding debt of ₹ 59,205.19 crore as on 30 September 2015) till 30 June 2016, takeover future losses of DISCOMs for the years 2016-17 to 2019-20 in a graded manner and issue/guarantee the bonds for meeting the current losses.

Further, the Scheme aimed at reduction of Aggregate Technical and Commercial (AT&C) losses to 14.86 *per cent* and elimination of gap between Average Cost of Supply (ACS) and Average Revenue Realisation (ARR) of DISCOMs by 2019-20. To achieve the above outcomes, DISCOMs were required to install smart meters, install meters at all the feeders and distribution transformers (DTs), segregate agricultural and non-agricultural feeders, undertake measures for demand side management and energy efficiency *etc*.

The Performance Audit of the Scheme was undertaken with the objective to assess whether the directives pertaining to financial parameters envisaged in the UDAY Scheme and tripartite MoU have been adhered to and the overall objective of financial turnaround of DISCOMs was achieved and whether the targeted operational improvement and intended benefits were achieved by implementing operational efficiencies as envisaged in the UDAY Scheme and tripartite MoU.

What audit found and what do we recommend?

Audit found lapses in implementation of financial and operational activities envisaged in the UDAY Scheme thereby defeating the objective of financial and operational turnaround of DISCOMs. The shortcomings observed by Audit are outlined in the succeeding paragraphs.

Activities related to financial turnaround of DISCOMs

GoUP was to take over 75 *per cent* of the debt of DISCOMs as on 30 September 2015 excluding R-APDRP loan. DISCOMs did not exclude R-APDRP loan amounting to ₹ 2,816.88 crore while ascertaining the total outstanding debt of ₹ 59,205.19 crore which led GoUP to takeover excess debt of DISCOMs by ₹ 2,112.66 crore.

UPPCL claimed loss funding from GoUP on the basis of operational funding requirement instead of claiming on actual losses which led to receipt of excess funding of ₹ 7,977.97 crore by DISCOMs during 2016-17 to 2020-21.

UPPCL issued excess bonds of ₹ 8,493.70 crore at interest rate ranging between 8.48 *per cent* and 10.15 *per cent* beyond its loss trajectory due to which it had to bear interest burden of ₹ 3,505.20 crore up to October 2022.

GoUP deferred additional tariff subsidy amounting to ₹ 14,661.54 crore for release in instalments over a period of 10 years. Further, as directed by GoUP, UPPCL borrowed ₹ 20,940 crore from REC and PFC to ensure availability of funds for maintaining power supply by DISCOMs during COVID-19 lockdown period. As a result, DISCOMs had to bear interest burden of ₹ 2,426.61 crore upto October 2022 on the borrowed funds.

DISCOMs issued bonds for taking over earlier issued FRP bonds at interest rate of 9.70 *per cent* per annum whereas prevailing bank base rate *plus* 0.1 *per cent* was 9.45 *per cent*. This was against the provision of MoU which stipulated that bonds were to be issued with interest rate not more than the bank base rate *plus* 0.1 *per cent*. Resultantly, DISCOMs had to bear the additional interest burden of ₹ 3.97 crore up to October 2022.

Against the provisions of the MoU, GoUP adjusted electricity dues of ₹ 4,268.86 crore and additional tariff subsidy of ₹ 25,081.46 crore from UDAY grant released against the debt taken over by it.

Subsidy claims of DISCOMs amounting to ₹ 4,306.60 crore were pending for release from GoUP as of October 2022. This resulted in deficit in revenue of DISCOMs and put additional burden on them.

DISCOMs failed to realise the required additional security deposit of ₹ 2,873.54 crore from Large and Heavy Consumers depriving them of funds to that extent.

Activities related to operational turnaround of DISCOMs

AT&C losses of the DISCOMs during pre-UDAY period (2015-16) stood at 39.86 *per cent* which were to be reduced to 14.86 *per cent* by the year 2019-20 as per UDAY MoU. However, the actual AT&C losses of the DISCOMs stood at 30.02 *per cent* in 2019-20 and instead of reduction, it further increased to 31.19 *per cent* in 2021-22.

DISCOMs could also not achieve the targets of Billing Efficiency (except KESCO) and Collection Efficiency (except PVVNL) by stipulated period of 2019-20 and further, by the end of 2021-22 (except KESCO in case of Billing Efficiency).

ACS-ARR gap of the DISCOMs during pre-UDAY period (2015-16) was ₹ -0.33 per unit which was required to be eliminated by the year 2019-20 as per UDAY MoU. The DISCOMs could not achieve the target as the gap remained at ₹ -0.34 per unit in 2019-20 which further increased to ₹ -0.56 per unit in 2021-22.

The number of unmetered consumers stood at 70.60 lakh (41.13 *per cent*) in all UP DISCOMs during pre-UDAY (2015-16). Uttar Pradesh Electricity Regulatory Commission (UPERC) issued directions in November 2016 for 100 *per cent* metering of unmetered consumers by March 2018. The DISCOMs failed to comply with the UPERC directions as there were 54.03 lakh unmetered consumers (27.50 *per cent*) out of total 196.45 lakh consumers in all DISCOMs by the end of March 2018. Further, as of October 2022, 12.34 lakh consumers (3.87 *per cent*) out of total 319.16 lakh consumers were still unmetered.

The DISCOMs, though showed improvement in reducing the percentage of defective meters, it remained above the prescribed norm of three *per cent* (except KESCO in the years 2018-19 onwards) during 2015-16 to 2022-23 (up to October 2022). The percentage of defective meters ranged from 3.41 *per cent* (in KESCO during 2017-18) to 30.90 *per cent* (in DVVNL during 2017-18) during 2015-16 to 2022-23.

DISCOMs failed to take necessary steps to recover the dues from the defaulting consumers or disconnect their connections as per provisions of Electricity Supply Code, 2005 resulting in accumulation of arrears of electricity charges amounting to ₹ 4,474.28 crore against 17.10 lakh live consumers for more than three months as per billing data of October 2022 of selected 64 Divisions.

DISCOMs did not take appropriate action in theft and unauthorised use of electricity cases due to which ₹ 458.37 crore in 66,514 theft cases remained unrealised as of October 2022.

DISCOMs did not recover electricity charges from departmental consumers as per provisions of tariff order. Due to not complying with tariff order, UPPCL could not realise the differential revenue of ₹ 1,761.55 crore during 2016-17 to 2021-22.

DISCOMs had to pay late payment surcharge of ₹ 5,965.13 crore to generators during 2018-19 to 2020-21 due to not paying their bills within due time, which was disallowed by UPERC from power purchase cost while truing up of the tariff for these years. As the same could not be recovered from the consumers through tariff, it adversely affected the Average cost of Supply of Power.

DISCOMs did not take prior approval for purchase of additional power from other State DISCOMs due to which power purchase cost of ₹ 30.69 crore had not been allowed by UPERC. This adversely impacted the Average Cost of Supply of Power.

DISCOMs submitted the tariff petitions with delay ranging from 7 days to 362 days during 2016-17 to 2022-23. Consequentially delay in finalisation of tariff orders resulted in delayed recovery of increased tariff from consumers to the tune of ₹ 7,143.97 crore by DISCOMs during the period 2016-17 to 2022-23.

DISCOMs could not achieve the target fixed for installation of 100 *per cent* Distribution Transformer (DT) meters by 30 September 2017. Further, none of DISCOMs could achieve the target of DT metering even by October 2022 as achievement was only 3,52,889 (13.74 *per cent*) against total 25,67,667 installed DTs.

The DISCOMs could install only 11.54 lakh smart meters till March 2022, against the target of 40 lakh smart meters as per roll out plan approved by UPERC.

Outcome of implementation of UDAY- pre and post performance of DISCOMs

Pre and post-UDAY financial performance of DISCOMs

The financial health of DISCOMs did not improve after the implementation of the Scheme as may be seen from the position of outstanding debt and losses pre and post UDAY. The pre-UDAY outstanding debt of DISCOMs was ₹ 59,205.19 crore as on 30 September 2015. Even after taking over of 75 *per cent* of debt amounting to ₹ 44,403.89 crore by GoUP up to June 2016, debt of DISCOMs again reached up to ₹ 52,456.15 crore at the time of closure of the Scheme on 31 March 2020 which further increased to ₹ 71,102.77 crore as on 31 March 2022. Similarly, the losses of DISCOMs significantly increased from ₹ 2,654.42 crore as on 31 March 2016 to ₹ 3,792.24 crore as on 31 March 2020 which further increased to ₹ 6,492.45 crore as on 31 March 2022. Further, accumulated losses of DISCOMs increased from ₹ 67,901.09 crore as on 31 March 2016 to ₹ 85,152.99 crore as on 31 March 2020. The accumulated losses of DISCOMs stood at ₹ 77,936.94 crore as on 31 March 2022.

The reasons for increase in debt and losses of DISCOMs were mainly attributable to failure of DISCOMs in achieving operational targets set under UDAY Scheme, adjustment of Government dues from UDAY grant and deferment of revenue subsidy over a period of 10 years by GoUP.

Pre and post-UDAY operational performance of DISCOMs

The operational performance of the DISCOMs also did not improve much after the implementation of the Scheme as may be seen from the position of AT&C losses and ACS-ARR gap. Against the envisaged reduction in AT&C losses from pre-UDAY (2015-16) level of 39.86 *per cent* to 14.86 *per cent*, the AT&C losses of DISCOMs remained at high level of 30.02 *per cent* during 2019-20 which further increased to 31.19 *per cent* in 2021-22. The main reasons for not achieving targeted level of AT&C losses were lower billing and collection efficiency and not carrying out related activities for reduction in AT&C losses *viz.* failure in installation of meter on unmetered connections, excessive number of defective meters, higher distribution losses and failure in realisation of revenue arrears.

Similarly, ACS-ARR gap of DISCOMs during pre-UDAY (2015-16) was ₹ - 0.33 per unit, which increased to ₹ - 0.34 per unit at the end of UDAY period (2019-20) against the target of surplus of ₹ 0.06 per unit. The DISCOMs could not eliminate the ACS-ARR gap even by the year 2021-22 as it further increased to ₹ - 0.56 per unit. This was mainly attributable to factors affecting the Average Cost of Supply *viz.* failure in reducing power purchase cost and expenditure incurred in excess of norms disallowed by UPERC and factors affecting Average Realisable Revenue such as existence of unmetered and defective meter connections, recovery of fixed rate instead of tariff rate from departmental consumers, failure in timely filing of tariff petitions and non- revision of tariff.

Thus, the objective of financial and operational turnaround could not be achieved by the DISCOMs even after implementation of the Scheme.

Recommendations

Audit recommends that:

- **GoUP may timely release subsidy to DISCOMs to reduce their dependence on borrowed funds.**
- **DISCOMs should ensure timely realisation of the additional security deposit from consumers to reduce their dependence on borrowed funds for working capital requirements.**
- **DISCOMs should ensure achievement of targeted reduction in AT&C losses and overall improvement in billing and collection efficiency. Further, DISCOMs should ensure metering of unmetered connections including departmental consumers in a time bound manner, reduction**

in percentage of defective meters up to permissible limit and make efforts for timely recovery of arrears from the consumers.

- **DISCOMs should evolve a time bound framework to eliminate ACS-ARR gap to improve their financial position.**
- **DISCOMs should ensure timely submission of tariff petitions to UPERC to avoid delayed recovery of increased tariff from consumers.**

CHAPTER–I

Introduction

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Introduction

Introduction

1.1 The power sector can be broadly segmented into generation, transmission and distribution sectors. The distribution sector consists of five Power Distribution Companies (DISCOMs) *viz.* Dakshinanchal Vidyut Vitran Nigam Ltd. (DVVNL), Madhyanchal Vidyut Vitran Nigam Ltd. (MVVNL), Paschimanchal Vidyut Vitran Nigam Ltd. (PVVNL), Purvanchal Vidyut Vitran Nigam Ltd. (PuVVNL), and Kanpur Electricity Supply Company (KESCO) under the holding company Uttar Pradesh Power Corporation Ltd (UPPCL). The DISCOMs are responsible for supply and distribution of energy to the consumers (industry, commercial, agriculture, domestic *etc.*) of Uttar Pradesh. The distribution sector is the weakest link in Power Sector value chain of generation, transmission and distribution in terms of financial and operational sustainability.

The Government of India (GoI) and Government of Uttar Pradesh (GoUP) had launched various schemes and initiatives from time to time aimed at improving operational and financial health of DISCOMs, which attained limited success and DISCOMs continue to be a resource drain on the economy.

During November 2015, the GoI launched the Ujwal DISCOM Assurance Yojana (hereafter referred to as UDAY Scheme) with the objective of financial and operational turnaround of DISCOMs. The Scheme was envisaged as a path-breaking reform for realising the vision of affordable and accessible 24x7 Power for All.

Implementation of Scheme in Uttar Pradesh

1.2 The GoI approved UDAY Scheme to improve the operational and financial efficiency of DISCOMs vide Office Memorandum (OM) dated 20 November 2015. The OM required that an agreement be signed amongst the respective State Government, DISCOMs and GoI stipulating responsibilities of the State Government, DISCOMs and GoI for achieving financial and operational milestones as described in the UDAY Scheme.

Accordingly, a tripartite Memorandum of Understanding (MoU) was signed on 30 January 2016 amongst Ministry of Power (MoP), GoI; GoUP and UPPCL (on behalf of the five DISCOMs of Uttar Pradesh).

The Scheme envisaged following financial and operational outcomes:

- **Financial outcomes**: Take over of 75 *per cent* of outstanding debts of DISCOMs and funding of future losses of DISCOMs in a graded manner by GoUP;
- **Operational outcomes**: Reduction of Aggregate Technical and Commercial (AT&C)[1] losses to 14.86 *per cent* by 2019-20 and elimination of gap between

[1] Aggregate Technical & Commercial (AT&C) losses means combination of energy loss (technical loss + theft + inefficiency in billing) and commercial loss (default in payment + inefficiency in collection).

Average Cost of Supply (ACS)[2] and Average Revenue Realisation (ARR)[3] by 2019-20.

To achieve the above outcomes of financial and operational turnaround, the tripartite MoU provided the following targeted activities:

- **Financial activities**: GoUP was required to take over debt of DISCOMs of ₹ 44,403.89 crore (75 *per cent* of total debt of ₹ 59,205.19 crore[4] outstanding as on 30 September 2015) till 30 June 2016, take over future losses of DISCOMs for the years 2016-17 to 2019-20 in a graded manner and issue/guarantee the bonds for meeting the current losses *etc*.

- **Operational activities**: The DISCOMs were required to improve billing efficiency and collection efficiency, install smart meters for all the consumers[5] consuming above 200 units per month by 31 March 2020, install meters at all the feeders and distribution transformers (DTs) by 30 September 2016 and 30 September 2017 respectively, achieve feeder segregation for agricultural and non-agricultural consumers by 31 March 2018 and undertaking measures for demand side management and energy efficiency.

Audit Objectives

1.3 The Performance Audit was conducted with the objectives to assess whether:

- The directives pertaining to financial parameters envisaged in the UDAY Scheme and tripartite MoU have been adhered to and the overall objective of financial turnaround of DISCOMs was achieved; and

- The targeted operational improvement and intended outcomes were achieved by implementing operational efficiencies as envisaged in the UDAY Scheme and tripartite MoU.

Audit Criteria

1.4 Audit findings were benchmarked against the criteria sourced from the following:

- Provisions of Office Memorandum of the UDAY scheme issued by MoP;
- Provisions of MoU signed amongst MoP, GoUP and UPPCL;
- Directions/instructions issued by MoP and GoUP from time to time;
- The Electricity Act, 2003, Electricity Supply Code, 2005 (Supply Code, 2005) and directions/tariff/true-up orders issued by Uttar Pradesh Electricity Regulatory Commission;
- Agenda and Minutes of Meetings of Board of Directors of DISCOMs and UPPCL;
- Terms of lending agreements of DISCOMs under UDAY Scheme;
- Progress against targets as reflected on UDAY dashboard.

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[2] Average Cost of Supply (ACS) means total expenditure incurred divided by total input of energy in units during a specific period.

[3] Average Realisable Revenue (ARR) means total revenue (including subsidy on receipt basis and all other incomes) divided by total input of energy in units during a specific period.

[4] Including bonds issued under Financial Restructuring Plan (FRP)-2012 prior to 30 September 2015 amounting to ₹ 5,270.13 crore.

[5] Excluding agricultural consumers.

Audit Scope and Methodology

1.5 The Performance Audit was conducted during January 2021 to May 2022[6] and December 2022 with a view to assess the effectiveness and efficiency in implementation of the UDAY Scheme and performance of DISCOMs, pre and post implementation of UDAY Scheme. Since, implementation period of the UDAY Scheme was from 2015-16 to 2019-20, Audit covered the period from 2015-16 to 2020-21 (updated up to October 2022) so that a comparison of pre and post UDAY position could be made.

In order to assess the performance against the obligations of GoUP and DISCOMs as envisaged in OM of the Scheme and MoU, records of the Energy Department, GoUP (Department), UPPCL and headquarters of five DISCOMs were examined.

To examine the operational achievements, Audit scrutinised the relevant records of 18 Circle Offices which were selected on the basis of high and low AT&C losses and quantum of increase/decrease in their AT&C losses during scheme period and 64 Electricity Distribution Divisions under these Circle Offices **(Appendix-1.1)**.

Entry Conference was held on 8 February 2021 wherein the audit objectives, scope and methodology were discussed with the Department/Management. An Exit Conference was held on 8 July 2022 with the Management and on 28 March 2023 with the Government to discuss the audit findings. Replies of UPPCL were received in July/August 2022 and March 2023. During finalisation, the Performance Audit Report was revised and issued to the Energy Department, GoUP in August 2023 for response. Replies of the Department, received in October 2023, have been suitably incorporated in the Report.

[6] The audit was started in January 2021 at UPPCL Headquarters but due to COVID pandemic it remained suspended intermittently and field audit in four DISCOMs (DVVNL, MVVNL, PVVNL, PuVVNL) could be started only in December 2021.

CHAPTER–II

Activities related to Financial Turnaround of DISCOMs

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Activities related to Financial Turnaround of DISCOMs

The financial turnaround under UDAY scheme envisaged taking over of 75 *per cent* of total debt of DISCOMs outstanding as on 30 September 2015 by the State Government by providing grant and equity. The scheme also envisaged taking over of losses of DISCOMs in a graded manner.

DISCOMs did not exclude R-APDRP loan from total outstanding debt as per MoP instructions which led to taking over of excess debt by GoUP. DISCOMs also claimed excess amount of loss funding from GoUP. They could not ensure timely realisation of additional security deposit from consumers. GoUP did not timely release subsidy amount to DISCOMs. GoUP also adjusted Government dues and additional tariff subsidy from UDAY grant against the provisions of UDAY MoU. This adversely affected the financial turnaround of DISCOMs.

Objective of financial turnaround in UDAY Scheme

2.1 The main objective of financial turnaround in UDAY Scheme was to improve financial health and efficiency of DISCOMs by taking 75 *per cent* DISCOMs debt as on 30 September 2015 and funding of future losses of DISCOMs in a graded manner during the implementation period (2015-16 to 2019-20) of UDAY Scheme.

Implementation of financial turnaround activities in UDAY Scheme

2.2 The MoU stipulate financial and operational efficiency parameters to be monitored for time bound improvement. The financial parameters as per UDAY Scheme are detailed below:

- Taking over 75 *per cent* of the debt of DISCOMs as on 30 September 2015 during 2015-16 and 2016-17 *i.e.* 50 *per cent* in 2015-16 and 25 *per cent* in 2016-17 (by 30 June 2016) by GoUP. (Clause no. 1.2 (a) to 1.2 (c) of MoU)
- Transfer of 50 *per cent* debt in first year and 25 *per cent* debt in second year to DISCOMs as a mix of grant, loan and equity in ratio of 50:25:25 by GoUP. In third year, conversion of 25 *per cent* transferred loan into grant. (Clause no. 1.2 (d) of MoU)
- Taking over of future losses of DISCOMs for the year 2016-17 to 2019-20 in a graded manner up to 2020-21 by GoUP. (Clause no. 1.2 (i) of MoU)
- Expeditious payment of all outstanding dues by the State Government Departments to DISCOMs for supply of electricity. (Clause no. 1.2 (j) of MoU)
- GoUP to guarantee repayment of principal and interest payment for the balance debt remaining with DISCOMs/bonds issued by DISCOMs. (Clause no. 1.2 (k) of MoU)
- GoUP to issue bonds itself or to guarantee the bonds issued by DISCOMs for meeting the current losses after 1 October 2015 within the limit of loss trajectory. (Clause no. 1.2 (l) of MoU)

- For the Fifty *per cent* of DISCOMs' debt remaining with them as on 31 March 2016, DISCOMs to fully/partially issue State Government guaranteed bonds or get them converted by banks/financial institutions into loans or bonds with interest rate not more than the banks base rate plus 0.1 *per cent*. (Clause no. 1.3 (a) of MoU)

To examine the implementation of UDAY Scheme, Audit analysed the pre-UDAY financial position, targets of financial activities in UDAY Scheme & its achievements and post-UDAY financial position.

Pre-UDAY financial position with targets under UDAY and achievements

2.3 The pre-UDAY financial position of DISCOMs in terms of total outstanding debt and losses along with targets to be achieved under UDAY and achievement/shortfall there against is detailed in **Table 2.1** below:

Table 2.1: Status of Pre-UDAY financial position of DISCOMs, Targets under UDAY and Achievements

Financial Parameters	Pre-UDAY position	Targets of discharging of debt and funding of losses of DISCOMs under UDAY Scheme	Achievement	Remarks
Total outstanding debt of DISCOMs	₹ 59,205.19 crore (as on 30 September 2015) (₹ 56,388.31 crore after excluding R-APDRP loan of ₹ 2,816.88 crore as per MoP instructions[1])	₹ 44,403.89 crore (₹ 42,291.23 crore after excluding R-APDRP loan as per MoP instructions) by GoUP	₹ 44,403.89 crore	There was excess takeover of DISCOMs' debt by GoUP by ₹ 2,112.66 crore due to not excluding R-APDRP loan from total outstanding debt as discussed in **Paragraph 2.4.1**.
		₹ 14,097.08 crore by UPPCL	₹ 11,984.42 crore[2]	There was shortfall of ₹ 2,112.66 crore in discharging of debt by DISCOMs as discussed in **Paragraph 2.4.1**.
Losses of DISCOMs	₹ 2,654.42 crore (for the year 2015-16)	₹ 4,071.52 crore[3]	₹ 12,049.49 crore	There was excess claim[4] of loss funding amounting to ₹ 7,977.97 crore by DISCOMs from GoUP as discussed in **Paragraph 2.4.3**.

Audit examined the process of taking over of debt and other associated activities related to taking over of debt *i.e.*, issuance of bonds and repayment of debt *etc.* and position of DISCOMs after implementation of UDAY Scheme. Further, failure of DISCOMs in reducing the financial losses consequent to

1 As per MoP's OM dated 18 April 2016.

2 Including FRP bonds of ₹ 615.45 crore (which were not to be converted into UDAY bonds) and payment of loan installments of ₹ 992.68 crore to banks and FIs during the period from 30 September 2015 to date of actual takeover.

3 As per Para 1.2 (i) of the MoU read with Para 8.1 of MoP's OM dated 20 November 2015, GoUP shall take over the specified percentage of previous year's actual losses of DISCOMs during 2017-18 to 2020-21. Accordingly, total losses to be taken over by GoUP have been calculated.

4 Claimed on the basis of Operational Funding Requirement (OFR) computed by UPPCL. OFR is the funding requirement derived after deducting decrease in current assets/increase in current liabilities and/or adding increase in current assets/decrease in long term liabilities from cash loss/profit and after adjusting cash support from State Government as mentioned in UDAY MoU.

implementation of UDAY Scheme were also examined. The deficiencies noticed are discussed in succeeding paragraphs.

Audit findings related to financial turnaround

2.4 Audit noticed the following deficiencies in the implementation of the financial activities under UDAY Scheme.

Excess takeover of debt by GoUP due to not excluding R-APDRP loan from total outstanding debt

2.4.1 As per Clause 1.2 of the MoU, GoUP was to take over 75 *per cent* of the debt of the DISCOMs as on 30 September 2015 for financial turnaround of the DISCOMs. Further, as per Clause 1.3 (a) of the MoU, the remaining 25 *per cent* debt was to be discharged by DISCOMs through issue of State Government guaranteed bonds or get it converted by banks/financial institutions into loans or bonds with interest rate not more than the banks base rate plus 0.1 *per cent*. MoP clarified vide OM dated 18 April 2016 that GoI loans under Restructured-Accelerated Power Development and Reforms Programme (R-APDRP) may not be taken over by the States or issued as DISCOM bonds. These loans may continue in the books of the DISCOMs as GoI/FI/Bank Loans and should not be retired. Thus, R-APDRP loans were kept out of ambit of UDAY Scheme.

Due to not excluding R-APDRP loan from total outstanding loan as per MoP instructions, GoUP had to take over debt of DISCOMs in excess by ₹ 2,112.66 crore.

The DISCOMs ascertained the debt amounting to ₹ 44,403.89 crore out of total outstanding debt of ₹ 59,205.19 crore as of 30 September 2015 for taking over by GoUP.

Audit noticed that even after issuance of OM (18 April 2016) by MoP, R-APDRP loan amounting to ₹ 2,816.88 crore was not excluded by DISCOMs from the outstanding debt. Due to not excluding R-APDRP loan, GoUP had to take over debt of DISCOMs in excess by ₹ 2,112.66 crore (75 *per cent* of ₹ 2,816.88 crore) which otherwise should have been discharged by the DISCOMs.

In reply, the Department stated that as per MoP decision vide above-mentioned OM, R-APDRP loan was not to be considered under UDAY Scheme for taking over by GoUP. Accordingly, R-APDRP loan of ₹ 2,816.88 crore was retained in the books of DISCOMs and GoUP did not take over 75 *per cent* of the R-APDRP loan. Thus there was no excess takeover of the debt by GoUP.

The reply is not acceptable as, although the R-APDRP loan was not taken over by GoUP, this loan was not excluded from total outstanding debt under UDAY Scheme for calculation of 75 *per cent* share of debt to be taken over by GoUP, thereby resulting in excess takeover of DISCOMs' debt by GoUP.

Adjustment of Government dues and tariff subsidy from UDAY grant against the provisions of MoU

2.4.2 As mentioned in **Table 2.1** above, GoUP was to take over 75 *per cent* of the debt of DISCOMs outstanding as on 30 September 2015 by the financial year 2016-17 (up to 30 June 2016) as per provisions of MoU.

The details of debt taken over by GoUP and equity and grant released there against are given below:

Particulars	Amount (₹ in crore)
Debt actually taken over	44,403.89
Equity released against debt taken over	15,053.57
Grant released against taken over debt	29,350.32

Against the provisions of MoU, GoUP adjusted electricity dues of ₹ 4,268.86 crore and tariff subsidy of ₹ 25,081.46 crore from the UDAY grant given against the debt taken over by it.

Audit observed that GoUP, subsequently ordered (March 2021) that against released grant of ₹ 29,350.32 crore, dues of Government Department's electricity bills of ₹ 4,268.86 crore and additional tariff subsidy of ₹ 25,081.46 crore[5] payable by GoUP up to 2019-20, will deemed to be paid.

Audit noticed that adjustment of electricity dues and additional tariff subsidy from the grant was against the provisions of MoU as the grant was given to DISCOMs towards taking over of their debt by GoUP. This adversely affected the financial turnaround of the State DISCOMs as DISCOMs were deprived of the funds to be received from GoUP on accounts of outstanding dues of Government Department's electricity bills and subsidy.

In reply, the Department stated that the adjustment of Government dues and tariff subsidy payable against the loan taken over by the State Government under the UDAY scheme was on the basis that had this subsidy been accepted and paid earlier by GoUP, DISCOMs would not have borrowed the additional working capital loans which were eventually taken over by GoUP under the UDAY Scheme.

The reply is not acceptable as the adjustment of Government dues and tariff subsidy from UDAY grant was against the provisions of MoU and had adversely affected financial turnaround of DISCOMs under UDAY scheme.

Excess claim against losses from GoUP

2.4.3 Para 1.2 (i) of the MoU, GoUP shall take over the future losses of the DISCOMs in a graded manner and shall fund the losses as follows:

Year	2017-18	2018-19	2019-20	2020-21
Previous year's DISCOM loss to be taken over by State	5 *per cent* of the loss of 2016-17	10 *per cent* of the loss of 2017-18	25 *per cent* of the loss of 2018-19	50 *per cent* of the loss of 2019-20

Further, Para 8.1 of MoP's Office Memorandum dated 20 November 2015 on UDAY Scheme also provided that 'the previous year's actual losses will be used for calculation for each year instead of using current year's estimated losses.

Audit noticed that UPPCL on behalf of DISCOMs had claimed loss funding from GoUP on the basis of operational funding requirement (OFR) instead of claiming on actual losses and the same was also reimbursed by GoUP. The details of loss funding to be claimed on the basis of actual losses and losses taken over by GoUP on the basis of OFR is given in **Table 2.2** below:

[5] Out of claimed tariff subsidy of ₹ 39,743.00 crore by DISCOMs from GoUP pertaining to period 2007-08 to 2019-20.

Table 2.2: Details of loss funding to be claimed and losses taken over by GoUP on the basis of OFR

(₹ in crore)

Year	Percentage of loss to be taken over as per MoU	Actual losses of DISCOMs	Loss to be taken over by GoUP	OFR worked out by DISCOMs	Loss actually taken over by GoUP based on OFR	Excess losses taken over by GoUP
2016-17	Nil	3,182.05	Nil	13,376.43	Nil	0
2017-18	5 *per cent* of the loss of 2016-17	5,083.30	159.10	14,171.24	668.81	509.71
2018-19	10 *per cent* of the loss of 2017-18	6,031.89	508.33	16,834.74	1,417.21	908.88
2019-20	25 *per cent* of the loss of 2018-19	3,792.24	1,507.97	11,510.00	3,685.00	2,177.03
2020-21	50 *per cent* of the loss of 2019-20		1,896.12		6,278.47[6]	4,382.35
Total			**4,071.52**		**12,049.49**	**7,977.97**

Source: Information provided by UPPCL

UPPCL claimed loss funding on the basis of operational funding requirement instead of actual losses which resulted into excess takeover of loss of ₹ 7,977.97 crore of DISCOMs by GoUP.

Thus, it may be seen from the above table that UPPCL had claimed loss funding from GoUP in contravention of the provisions of the Para 1.2 (i) of MoU, resulting in excess takeover of losses by GoUP to the tune of ₹ 7,977.97 crore.

The Department replied that the claim against the loss subsidy support from GoUP was made on the gross operational funding requirement (OFR) which was envisaged in the MoU and computed on the basis of audited accounts.

The reply is not acceptable as clause 1.2 (i) of MoU stated that GoUP shall take over 'future losses' of DISCOMs in a graded manner. Further, Para 8.1 of the UDAY Scheme OM clearly stated that 'the previous year's actual losses' will be used for calculation of loss funding for each year.

Issue of bonds in excess of loss trajectory

2.4.4 Para 1.2 (m) of the MoU provided that current losses after 1 October 2015, if any, shall be financed only upto the extent of loss trajectory and such financing will be done through issue of bonds by State or bonds issued by DISCOMs backed by State Government Guarantee. The year-wise projected loss as per MoU was as under:

(₹ in crore)

Particular	2015-16	2016-17	2017-18	2018-19	2019-20
Projected Loss (-)/Net Income as per MoU	(-) 7,724	(-) 5,012	(-) 2,621	568	3,647

The details of bonds issued by UPPCL in respect of loss funding are given in **Table 2.3** below:

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[6] This includes ₹ 523.47 crore for the year 2019-20 and ₹ 5,755.00 crore for the year 2020-21. The amount was deferred by GoUP for release over a period of 10 years.

Table 2.3: Details of bonds issued by UPPCL

(₹ in crore)

Year	Bonds to be issued as per Loss trajectory in the MOU	Bonds actually issued by UPPCL	Rate of Interest (in percentage)	Excess bonds issued
2015-16 (Oct. 15-Mar. 16)	3,862	9,999.50	8.48 and 8.97	1,125.50
2016-17	5,012			
2017-18	2,621	9,989.20	9.75 and 10.15	7,368.20
Total	**11,495**	**19,988.70**		**8,493.70**

Source: Information provided by UPPCL

It can be seen from above table that UPPCL had issued excess bonds of ₹ 8,493.70 crore at interest rate ranging between 8.48 *per cent* and 10.15 *per cent* in contravention to the MoU provision. Due to excess issue of bonds, UPPCL had to bear interest burden of ₹ 3,505.20 crore[7] up to October 2022 which has adverse impact for the financial turnaround of DISCOMs under UDAY scheme. Further, GoUP had to provide excess guarantee to the extent of bonds issued by DISCOMs in excess of loss trajectory under UDAY Scheme.

In reply, the Department stated that as per MoU, the funding of losses was against the gross operational funding requirement which was envisaged in the MoU.

The reply is not acceptable as bonds were to be issued only to the extent of loss trajectory as stipulated in the MoU.

Taking over of FRP bonds at higher interest rates by DISCOMs

2.4.5 Clause 1.3 (a) of MoU stipulated that for the 50 *per cent* of debt remaining as on 31 March 2016, the DISCOMs would fully/partially issue State Government guaranteed bonds or get them converted by banks/FIs into loans or bonds with interest not more than the bank base rate plus 0.1 *per cent*. DISCOMs and the Government of UP would ensure timely payment of lender's dues towards principal/interest for the balance debt remaining with DISCOMs.

Audit observed that FRP bonds amounting to ₹ 299.49 crore were taken over and issued as UDAY bonds on 30 March 2017 for a period of 15 years.

Audit further observed that above UDAY bonds were issued at the rate of 9.70 *per cent* per annum by DISCOMs whereas prevailing bank base rate at the time of issue plus 0.1 *per cent* was 9.45 *per cent*. This was against the provision of MoU which clearly provided that bonds were to be issued with interest not more than the bank base rate plus 0.1 *per cent*. Resultantly, DISCOMs had to bear additional interest burden of ₹ 3.97 crore up to October 2022 and likely to bear further additional interest of ₹ 2.97 crore till redemption of bonds in March 2032, which could have been saved.

The Department replied that loans were issued to the existing lenders at the MoU based pre-decided rate of Bank BR + 0.1 *per cent i.e.* 9.70 *per cent*.

[7] Proportionate interest on the excess bonds of ₹ 8,493.70 crore issued.

The reply is not acceptable as bonds were to be issued at the prevailing bank base rate plus 0.1 *per cent* as per above mentioned provision of MoU which was not done.

Avoidable interest burden due to retention of excess funds in Debt Service Reserve Account

2.4.6 UPPCL issued Government guaranteed bonds of ₹ 19,988.70 crore in four tranches during 2016-17 and 2017-18 for loss funding as detailed in **Table 2.4** below:

Table 2.4: Details related to bonds issued by UPPCL

(₹ in crore)

Sl. No.	Particulars of bond	Debenture Trustee	Account Bank	Account Number	Bond Amount
1.	8.97 *per cent* Rated listed bond (17.03.17)	Vistra ITCL (India) Limited	HDFC Bank	50200004167832	6,510.00
2.	8.48 *per cent* Rated listed bond (27.03.17)			50200017358986	3,489.50
3.	9.75 *per cent* Rated listed bond (05.12.17)	Beacon Trusteeship Ltd.	ICICI Bank	628105501280	4,498.20
4.	10.15 *per cent* Rated listed bond (27.03.18)			628105501283	5,491.00
Total					**19,988.70**

Source: Information provided by UPPCL

As per clause[8] of agreement of bonds mentioned at Sl. No. 1 and 2 of **Table 2.4** above, amount equivalent to the total debt servicing obligation (principal and interest) towards the outstanding bonds becoming due on the next due date needs to be maintained by the issuer in the Debt Service Reserve Accounts (DSRA) on rolling basis. Similarly, clause[9] of agreement of bonds mentioned at serial number 3 and 4 of **Table 2.4** provided to maintain the balance of the fund equal to debt servicing obligation (principal and interest) due in next two quarters in the DSRA on rolling basis.

As per the clauses mentioned above, UPPCL was required to efficiently manage DSRA accounts keeping funds equivalent to required debt service obligation. Audit, however noticed that UPPCL retained excess fund in DSRA accounts than the fund actually required to be retained for debt servicing. The excess retention amount was ranging from ₹ 17.33 crore to ₹ 365.28 crore at the end of every financial year during 2016-17 to 2022-23 (October 2022) as detailed in **Table 2.5** below:

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[8] Clause 1 of escrow account agreement and Clause 2.11 of agreement of bonds valuing ₹ 6,510 crore and Clause 2.13 of agreement of bonds valuing ₹ 3,489.50 crore mentioned at Sl. No. 1 and 2 of Table 2.4.

[9] Clause 1 of escrow account agreement and Clause 2.14.3 of agreement of bonds valuing ₹ 4,498.20 crore and Clause 2.14.3 of agreement of bonds valuing ₹ 5,491 crore mentioned at Sl. No. 3 and 4 of Table 2.4.

Table 2.5: Statement showing excess deposit in DSRA than requirement

(₹ in crore)

Year	Funds in DSRA accounts at the year end	Funds required to be retained as per the agreement	Excess Funds retained in DSRA accounts (including FDR and investment)
2016-17	224.44	204.04	20.40
2017-18	728.24	362.96	365.28
2018-19	1,024.80	839.21	185.59
2019-20	1,678.93	1,602.91	76.02
2020-21	1,548.98	1,512.00	36.98
2021-22	1,438.68	1,421.34	17.33
2022-23	1,388.93	1,362.55	26.38

Source: Based on information provided by UPPCL

Thus, due to excess retention of funds in DSRA accounts, UPPCL could not utilise these funds and had taken loans at higher rate for meeting its working requirements which could have been avoided had the excess funds kept in DSRA accounts been utilised. This has resulted in interest burden to the tune of ₹ 18.71 crore[10] up to October 2022 on UPPCL.

The Department replied that UPPCL has maintained the required amount in DSRA through investment in FDRs and AAA rated securities.

The reply is not acceptable as funds were required to be maintained in the DSRA account only to the extent of amount required for payment equal to one quarter for tranche 1 and 2 and two quarters for tranche 3 and 4.

Other issues that affect financial turnaround

2.5 Audit analysed other issues which were not part of tripartite MoU but affects financial turnaround of DISCOMs and noticed the following deficiencies:

Short release of outstanding subsidy by GoUP

2.5.1 Section 65 of the Electricity Act, 2003 provided that if the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission, the State Government shall pay in advance the amount to compensate the person affected by the grant of subsidy.

Audit observed that subsidy scheme *viz.* tariff subsidy and subsidy for power loom connections were operated by GoUP during implementation period of the Scheme. Against above schemes, the subsidy was required to be released to the DISCOMs by GoUP. Audit analysed the status of subsidy claimed, received and balance subsidy in respect of above schemes during the period 2015-16 to 2022-23 (up to October 2022) for all the DISCOMs as detailed in **Table 2.6** below:

[10] Calculated at the interest rate of 8.25 to 11.32 *per cent* (annual weighted average interest rate of working capital loan obtained by UPPCL) *minus* interest earned on fixed deposits/investments of funds kept in DSRA at the interest rate of 5.10 *per cent* to 7.25 *per cent* (prevailing interest rates on one year term FD during 2016-17 to 2022-23).

Table 2.6: Position of outstanding subsidy from GoUP

(₹ in crore)

Year	Opening balance	Subsidy claimed during the year	Total subsidy due	Total subsidy received during the year	Arrear of subsidy
1	**2**	**3**	**4 = 2 + 3**	**5**	**6 = 4 - 5**
2015-16	20,970.30	10,263.04	31,233.34	5,590.00	25,643.34
2016-17	25,643.34	13,443.66	39,087.00	5,981.87	33,105.13
2017-18	33,105.13	13,643.08	46,748.21	6,099.83	40,648.38
2018-19	40,648.38	11,154.98	51,803.36	10,261.62	41,541.74
2019-20	41,541.74	11,198.15	52,739.89	10,270.00	42,469.89
2020-21	42,469.89	9,197.87	51,667.76	47,200.18[11]	4,467.58
2021-22	4,467.58	14,261.78	18,729.36	14,765.66	3,963.70
2022-23 (up to Oct. 2022)	3,963.70	8,130.40	12,094.10	7,787.50	4,306.60

Source: Information provided by UPPCL

There was short release of subsidy amount to DISCOMs by GoUP during 2015-16 to 2022-23.

It can be seen from above that full claim of subsidy was not released by GoUP during 2015-16 to 2022-23 (up to October 2022). By the end of the Scheme implementation period and onwards up to October 2022, subsidy claims amounting to ₹ 4,306.60 crore were pending for release from GoUP impacting the revenue deficit of DISCOMs and putting additional burden on them. Moreover, UDAY grant of ₹ 25,081.46 crore was adjusted towards payment of subsidy in the year 2020-21 as discussed in **Paragraph 2.4.2**. Due to short receipt of subsidy, the DISCOMs were deprived of working capital funds to that extent.

The Department replied that the additional tariff subsidy computed by UPERC was not shown in the books of accounts of DISCOMs as the same was never admitted by GoUP. Subsequent to notification of Liquidity Infusion Scheme[12], GoUP accepted such additional subsidy and adjusted the same from released grants under the UDAY scheme.

The reply is not acceptable as adjustment of additional subsidy from released grant under UDAY was against the provisions of UDAY MoU.

Deferment of tariff subsidy resulted in avoidable interest burden on DISCOMs

2.5.2 As mentioned in **Paragraph 2.5.1** above, the subsidy was required to be paid in advance by GoUP. However, Audit noticed that GoUP deferred (July 2020) outstanding tariff subsidy of ₹ 14,661.54 crore pertaining to period 2007-08 to 2019-20 for release in installments over a period of 10 years. Further, GoUP directed (July 2020) that for availability of funds for maintaining power supply by DISCOMs during COVID-19 lockdown period, UPPCL would take loan of ₹ 20,940 crore[13] from REC and PFC. Accordingly, UPPCL borrowed this amount from REC and PFC.

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[11] This includes ₹ 25,081.46 crore adjusted from UDAY grant and ₹ 14,661.54 crore deferred by GoUP for payment over a period of 10 years.

[12] Liquidity Infusion Scheme was a scheme announced by GoI as a part of Aatmanirbhar Bharat Abhiyan under which REC and PFC extend special long term loans upto 10 years to DISCOMs.

[13] Equivalent to outstanding tariff subsidy of ₹ 14661.53 crore *plus* pending loss funding under UDAY scheme of ₹ 6,278.47 crore.

Thus, availing of loan by UPPCL in lieu of subsidy resulted in avoidable interest burden of ₹ 2,426.61 crore[14] on DISCOMs up to October 2022.

The Department replied that the State Government agreed to release the claim of DISCOMs under liquidity infusion scheme in 10 years. The DISCOMs also requested the State Government to provide support for funding of interest, however the State Government did not agree on the same. Further, the additional interest burden on the subsidy value will be largely funded on the methodology of UDAY/GSDP/RDSS scheme in the respective financial years.

The reply is self-explanatory as burden of interest remains with DISCOMs which would adversely impact their financial position.

Recommendation 1:

GoUP may timely release subsidy to DISCOMs to reduce their dependence on borrowed funds.

Failure in realisation of additional security deposit

2.5.3 Clause 4.20 of the Electricity Supply Code, 2005 provided that the licensee may give notice to any consumer for deposit of additional security deposit if the security deposit falls short of covering the estimated power consumption bill for 2 months (later revised to 45 days from July 2019) based on his average monthly consumption for the preceding financial year. Further Clause 4.20 (f) provided that the consumer shall deposit the additional security within 30 days after the service of the notice. If a person fails to deposit such security, the licensee may discontinue supply of electricity for period during which failure continues.

Audit noticed that DISCOMs failed to realise the amount of required additional security deposit of ₹ 2,873.54 crore[15] from 9,219 Large and Heavy Consumers during 2022-23 to secure the interest of DISCOMs. Due to failure in realising the additional security deposit from the consumers, DISCOMs were deprived of funds to that extent.

The Department stated in its reply that additional security deposit of ₹ 77.79 crore has been recovered till June 2022 and efforts are being made to recover the remaining amount at the earliest.

The reply is not acceptable as only ₹ 77.79 crore has been recovered against due additional security deposit amount of ₹ 2,873.54 crore.

Recommendation 2:

DISCOMs should ensure timely realisation of the additional security deposit from consumers to reduce their dependence on borrowed funds for working capital requirements.

Conclusion

DISCOMs did not exclude R-APDRP loan from total outstanding debt as per MoP instructions which led to taking over of excess debt of ₹ 2,112.66 crore by GoUP. DISCOMs also claimed excess amount of loss funding from GoUP to the tune of ₹ 7,977.97 crore. DISCOMs had to bear

[14] Total interest amount paid by UPPCL: ₹ 3,465.75 crore (on loan amounting to ₹ 20,940.00 crore) x ₹ 14,661.54 crore / ₹ 20,940.00 crore.

[15] Calculated by Audit on the basis of difference between average consumption bill of 45 days of large and heavy consumers and their security deposit existing as of March 2022.

avoidable interest burden on availing of loan due to deferment of release of loss funding and tariff subsidy by GoUP. Further, GoUP adjusted electricity dues of ₹ 4,268.86 crore and tariff subsidy of ₹ 25,081.46 crore from the UDAY grant released against the debt taken over by it.

There was short release of subsidy amount to DISCOMs by GoUP. DISCOMS also could not ensure timely realisation of additional security deposit from consumers thereby leading to dependence on borrowed funds.

As a result, the objective of financial turnaround envisaged in the UDAY Scheme could not be achieved.

CHAPTER–III

Activities related to Operational Turnaround of DISCOMs

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Activities related to Operational Turnaround of DISCOMs

The operational turnaround under UDAY Scheme envisaged reduction of AT&C losses to 14.86 *per cent* and eliminating ACS-ARR gap by the year 2019-20 through achieving the operational milestones related to loss reduction and enhancement of revenue.

DISCOMs failed to achieve the targets of reduction of AT&C losses due to lower billing and collection efficiency. AT&C losses of the DISCOMs were as high as 30.02 *per cent as* of March 2020 which further increased to 31.19 *per cent* as of March 2022.

DISCOMs also failed in eliminating ACS-ARR gap due to not reducing power purchase cost and disallowance of expenditure in excess of norms by UPERC in fixation of tariffs. ACS-ARR gap of DISCOMs was ₹ -0.34 per unit as of March 2020 which increased to ₹ -0.56 per unit as of March 2022.

DISCOMs could not achieve various operational milestones such as distribution transformer metering, smart metering, timely filing of tariff petitions *etc.* which ultimately affected the operational turnaround of DISCOMs.

Introduction

3.1 The UDAY MoU stipulated carrying out of operational activities with the intended objective of improving operational efficiency of the DISCOMs in a time-bound manner. The outcomes of operational improvement were to be measured through operational performance indicators of reduction in AT&C losses and elimination of gap between Average Cost of Supply (ACS) and Average Revenue Realisation (ARR).

Implementation of operational activities in UDAY Scheme

3.2 For the efficient and effective implementation of the operational activities, DISCOMs were required to undertake activities as envisaged in the MoU. After successful execution of operational activities by DISCOMs under the Scheme, the following outcomes were envisaged:

- Reduction of AT&C losses to 14.86 *per cent* by 2019-20 and;
- Elimination of gap between ACS and ARR by 2019-20.

To achieve the above, UDAY MoU enumerated the major obligations/ commitments of DISCOMs aimed at key targeted areas as detailed in **Table 3.1** below:

Table 3.1: Operational parameters under UDAY Scheme and intended benefits

Sl. No.	Operational Parameters	Intended benefits
1	Increase hours of power supply in area showing reduction in AT&C losses. (Clause 1.3 (d) of MoU)	Encourage local participation to reduce losses
2	Fulfil Renewable Purchase Obligations (RPO) outstanding since 1 April 2012 till 31 March 2015. DISCOMs shall fulfil RPO obligations three years after they reach breakeven point *i.e.* the financial year 2019-20. (Clause 1.3 (f) of MoU)	To promote renewable resources of power
3	Undertaking measures for loss reduction such as 'Name and Shame Campaign' to control power theft from time to time, preparing loss reduction targets at various levels and implementing performance monitoring and management system MIS for tracking the meter replacement, loss reduction and day to day progress for reporting to top management. (Clause 1.3 (i) i, ii and iii of MoU)	Reduction of loss
4	100 *per cent* feeder metering by 30 September 2016 and 100 *per cent* Distribution Transformer (DT) metering by 30 September 2017. (Clause 1.3 (i) iv and v of MoU)	Ability to track losses at the feeder and DT level for corrective action.
5	Physical Feeder Segregation by March 2018, in accordance with sanction of funds under the relevant scheme. (Clause 1.3 (i) viii of MoU)	Separation of feeders for agricultural and non-agricultural consumers to facilitate better load management and increased power supply to rural consumers.
6	Installation of Smart Meters for all consumers other than agriculture consumers consuming above 500 units per month by 30 June 2018 and consumers consuming above 200 units per month by 31 March 2020. (Clause 1.3 (i) ix of MoU)	Helping in reduction of theft and implementation of demand side management activities and consumer engagement.
7	Providing metered electricity access to 143.54 lakh unconnected households as per trajectory in the 24x7 in accordance with sanction of funds under the relevant scheme by 2018-19. (Clause 1.3 (i) x of MoU)	To provide power to unconnected households.
8	Undertaking measures for demand side management and energy efficiency such as providing LED lights for domestic and other category consumers, replacement of street lights with LEDs in phased manner as per policy framework, replacing at least 10 *per cent* of existing agriculture pumps with energy efficient pumps. (Clause 1.3 (j) i, iii and iv of MoU)	Reduction in peak load and energy consumption
9	Undertaking tariff measures for timely tariff revision which include timely filing of tariff petitions and timely preparation of annual accounts of the DISCOMs. (Clause 1.3 (k) of MoU)	Timely issue of tariff order.

Source: Provisions of UDAY MoU

To examine the implementation of measures for operational turnaround under UDAY Scheme, Audit analysed the pre-UDAY operational position, achievement of targets of operational activities under UDAY and post UDAY operational position.

Pre-UDAY operational position with targets under UDAY and achievements

3.3 The pre-UDAY operational position in terms of AT&C loss and Gap between ACS and ARR of all DISCOMs is detailed in **Table 3.2** below:

Table 3.2: Status of Pre-UDAY operational position with targets under UDAY and achievements

Operational Parameter	Pre-UDAY position in 2015-16	Target	Actual Achievement by 2019-20	Shortfall by 2019-20	Actual achievement by 2020-21	Actual achievement by 2021-22
AT&C loss	39.86 *per cent*	14.86 *per cent* by March 2020	30.02 *per cent*	15.16 *per cent*	27.23 *per cent*	31.19 *per cent*
ACS-ARR Gap	₹ - 0.33 *per unit*	Surplus of ₹ 0.06 per unit by March 2020	₹ - 0.34 per unit	₹ 0.40 per unit	₹ - 0.94 per unit	₹ - 0.56 per unit

Source: Information furnished by UPPCL

In view of the above, Audit examined the reasons for failure to reduce AT&C losses to targeted level and not eliminating the gap between ACS and ARR. Audit noticed that the main reasons for not achieving the targeted levels of AT&C losses were lower billing and collection efficiency, not carrying out targeted operational activities for reduction of AT&C losses *viz.* not meeting the targets of DT metering and installation of smart meters for consumers, delay in feeder metering and segregating mixed feeders for agricultural and non- agricultural consumers *etc.*

Similarly, the gap between ACS and ARR could not be eliminated due to increased interest burden, failure in reduction of power purchase cost, delayed filing of tariff petitions, failure in realisation of arrears/subsidy claims *etc.*

As may be seen from the **Table 3.2** above, the targeted reduction of AT&C losses and elimination of gap between ACS and ARR envisaged to be achieved by March 2020 could not be achieved even in 2020-21 and 2021-22.

Audit findings related to operational activities

3.4 Audit noticed the following deficiencies and shortfall in implementation of the operational activities during implementation of UDAY Scheme and post UDAY period:

Failure in achieving the targets of reduction in AT&C losses

3.4.1 The AT&C loss is an actual measure of performance of DISCOMs as it includes both technical losses[1] and commercial losses[2]. It shows the loss of input energy into the system with reference to the energy for which the payment is collected. Thus, it is inversely related with combined Billing and Collection

1 Technical losses are losses which happen on account of transformation losses and high losses on distribution lines due to inherent resistance and poor power factor in the electrical network.

2 Commercial losses are losses which occur due to (i) discrepancy in meter (ii) theft by direct hooking and; (iii) collection inefficiency.

efficiency of DISCOMs. The approved methodology by MoP, GoI for calculation of AT&C losses is given in **Appendix-3.1**.

As per UDAY MoU, the AT&C losses were to be reduced to 14.86 *per cent* by the year 2019-20 by all the DISCOMs. However, the actual AT&C losses of the DISCOMs stood at 30.02 *per cent* in 2019-20 and instead of reduction, it further increased to 31.19 *per cent* in 2021-22. Thus, the DISCOMs failed to achieve the UDAY target for AT&C losses and these remained significantly higher than the target. The DISCOM-wise position of actual AT&C losses *vis-à-vis* targets under UDAY during 2015-16 to 2021-22[3] is detailed in **Appendix-3.2.**

DISCOMs could not achieve the targets of AT&C loss reduction fixed under the UDAY MoU.

Audit observed that none of the DISCOMs (except KESCO) could achieve the targets of AT&C losses as fixed under the UDAY MoU during 2015-16 to 2019-20. In 2019-20, even KESCO failed to meet the target. Further, none of DISCOMs (except KESCO in the year 2020-21) could also achieve the above target of AT&C losses by the end of March 2022. It was further observed that performance of three DISCOMs (MVVNL, PuVVNL and DVVNL) was poorer compared to PVVNL and KESCO. The reasons as analysed by Audit were higher percentage of domestic rural consumers and less number of High Voltage (HV) consumers.

The value of energy lost due to failure of DISCOMs to reduce the AT&C losses to the target level as stipulated in the UDAY MoU was ₹ 48,350.51 crore[4] during 2015-16 to 2021-22 as detailed in **Appendix-3.2**. The major reasons for high AT&C losses are discussed in succeeding **Paragraph 3.4.2.**

The Department stated in reply that factors such as addition of large number of rural consumers under Saubhagaya Scheme, shifting of Railways and other industries to open access, increase in supply of agriculture consumers, abolishing of regulatory surcharge by UPERC etc. pulled back the DISCOMs from achieving the AT&C targets. Further, though the DISCOMs may have not been able to achieve the AT&C loss targets as per UDAY Scheme but managed to record a significant and unprecedented reduction of 10 *per cent* in AT&C losses during UDAY Scheme period.

The reply is not acceptable as the targets of AT&C loss reduction for the State under the UDAY scheme were at par with the targets given to other States. Further, the DISCOMs should have taken appropriate measures to increase billing and collection efficiency especially in case of rural and agricultural consumers to achieve AT&C loss reduction targets.

Reasons for high AT&C losses

3.4.2 Audit observed that the reasons for high AT&C losses were lower billing efficiency[5] and collection efficiency[6] of DISCOMs.

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[3] Audit compared the achievement of DISCOMs for the year 2020-21 and 2021-22 against the target of 14.86 *per cent* by 2019-20 as stipulated in UDAY MoU.

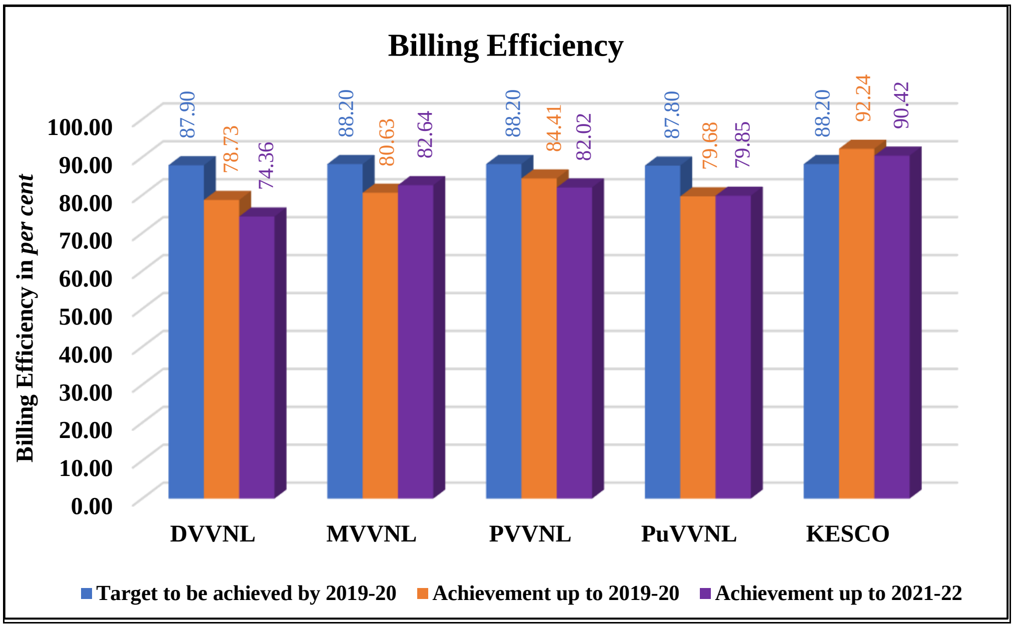
[4] DVVNL: ₹ 11,861.69 crore, MVVNL: ₹ 14,600.84 crore, PVVNL: ₹ 6,105.16 crore, PuVVNL: ₹ 15,732.43 crore and KESCO: ₹ 50.39 crore, calculated on AT&C losses reported by DISCOMs and value of energy lost calculated on the rate of average cost of procurement of power.

[5] Billing Efficiency is the proportion of units sold/billed to consumers against the total units of power injected/ supplied.

[6] Collection Efficiency is the proportion of revenue realised against total revenue billed.

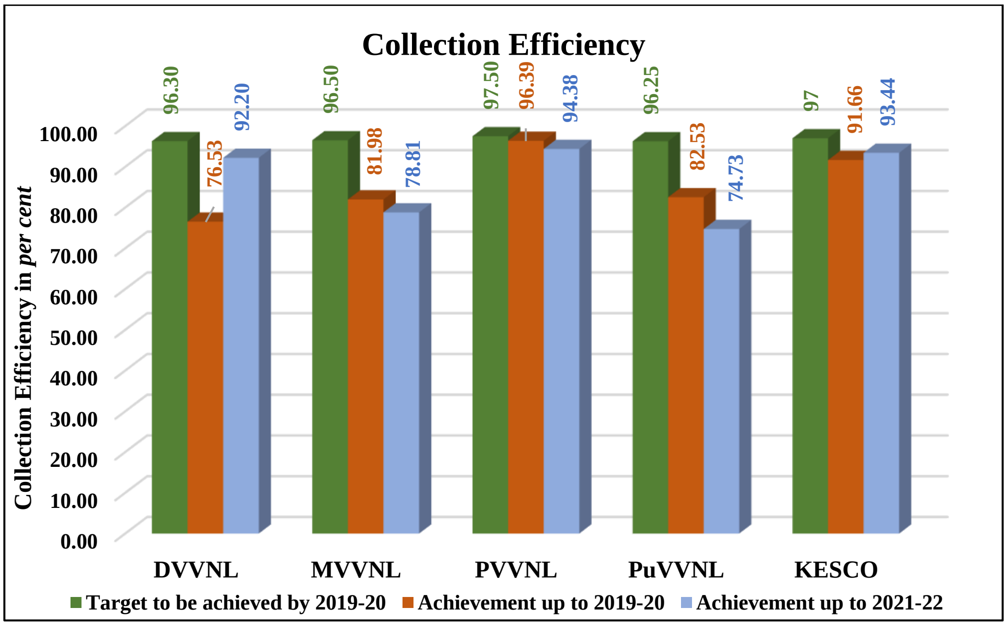
As per UDAY MoU, DISCOMs were required to increase their Billing Efficiency to 88.04 *per cent* and Collection Efficiency to 96.71 *per cent* by the end of 2019-20. However, the DISCOMs could not achieve the targets of Billing Efficiency (except KESCO) and Collection Efficiency (except PVVNL) by prescribed period of 2019-20 and further also by the end of 2021-22 (except KESCO in case of Billing Efficiency). The details of targets of Billing Efficiency and Collection Efficiency *vis-a-vis* actual achievements are given in the **Chart 3.1** and **3.2** below:

Chart 3.1: Target and Achievement of Billing efficiency by 2019-20 and 2021-22



It may be seen from the above chart that DISCOMs except KESCO failed to achieve the targets of billing efficiency. The shortfall ranged from 3.79 *per cent* to 9.17 *per cent* by the end of the prescribed period of 2019-20. Further, none of the DISCOMs except KESCO could achieve the targets of billing efficiency even by the end of 2021-22 and the shortfall ranged from 5.56 *per cent* to 13.54 *per cent*.

Chart 3.2: Target and Achievement of Collection efficiency by 2019-20 and 2021-22



It may be seen from the above chart that DISCOMs failed to achieve the targets of collection efficiency. The shortfall ranged from 1.11 *per cent* to 19.77 *per cent* by the end of the prescribed period of 2019-20. Further, none of the DISCOMs could achieve the targets of collection efficiency even by the end of 2021-22 and the shortfall ranged from 3.12 *per cent* to 21.52 *per cent*.

The main reasons attributable for shortfall in the billing efficiency and collection efficiency targets, as observed by Audit, were failure in installation of meter on unmetered connections, excessive number of defective meters and higher distribution losses, inadequate efforts in recovery of arrears from consumers, not recovering the dues against temporary disconnected (TD) and permanently disconnected (PD) consumers and not realising the assessed amount of recovery in theft cases as discussed in **Paragraph 3.4.3** and **3.4.4**.

In reply, the Department stated that distribution losses of DISCOMs collectively have reduced from 21.67 *per cent* in 2015-16 to 18.48 *per cent* in 2019-20 and collection efficiency has increased from 76.78 *per cent* in 2015-16 to 85.85 *per cent* in 2019-20. Detailed reasons for non-achievement of targets of distribution loss and collection efficiency have been provided in reply to previous para (Para 3.4.1). Further, distribution losses were further reduced to 16.65 *per cent* in 2022-23 and collection efficiency was increased to 93.57 *per cent* thereby reducing the overall AT&C losses to 22.01 *per cent* in 2022-23.

The fact remains that DISCOMs could not achieve the billing and collection efficiency targets as set out in the MoU.

Factors affecting the Billing Efficiency of DISCOMs

3.4.3 The main factors which affected the billing efficiency of DISCOMs as analysed by Audit are discussed below:

(a) Failure in installation of meter on unmetered connections

Uttar Pradesh Electricity Regulatory Commission (UPERC) issued directions in November 2016 for 100 *per cent* metering of unmetered consumers by March 2018.

Audit noticed that DISCOMs failed to comply with the UPERC directions as DISCOMs were having 54.03 lakh unmetered consumers (27.50 *per cent* of total 196.45 lakh consumers[7]) by the end of March 2018. Further, DISCOMs also could not fully comply with the directions up to October 2022 as 12.34 lakh consumers (3.87 *per cent* of total 319.16 lakh consumers) still remained unmetered. The details are as given in **Table 3.3** below:

[7] Total consumers of LMV-1 (domestic light, fan & power), LMV-2 (non-domestic light, fan & power), LMV-3 (public lamps), LMV-5 (private tube wells/pumping sets), LMV-8 (State tube wells & pump canals), LMV-9 (temporary supply) and LMV-10 (departmental employees) categories. Here LMV stands for Low and Medium Voltage.

Table 3.3: Category wise position of unmetered consumers of DISCOMs

(Consumers in lakh)

Year	Category of Consumers remaining unmetered[8]							Total
	LMV-1	LMV-2	LMV-3	LMV-5	LMV-8	LMV-9	LMV-10	
2015-16	59.24	1.03	0.06	9.06	0.30	0.00	0.91	70.60
2016-17	59.57	0.89	0.05	9.47	0.30	0.00	0.88	71.16
2017-18	50.87	0.80	0.00	1.02	0.07	0.32	0.95	54.03
2018-19	37.82	0.73	0.04	10.95	0.29	0.01	0.93	50.77
2019-20	25.60	0.48	0.02	11.93	0.30	0.00	0.98	39.31
2020-21	12.84	0.16	0.03	12.08	0.23	0.00	0.84	26.18
2021-22	9.02	0.19	0.05	11.77	0.19	0.00	0.83	22.05
2022-23 (up to October 2022)	0.93	0.05	0.07	10.35	0.17	0.01	0.76	12.34

Source: Commercial Statement (CS)-3 of UPPCL

Due to not metering of all the unmetered consumers, DISCOMs could not book energy consumption of these consumers on actual metered consumption basis. This adversely affected the billing efficiency of DISCOMs.

In reply, the Department stated that unmetered consumers have reduced from 41.13 *per cent* in 2015-16 to 13.70 *per cent* in 2019-20 and further reduced to 6.44 *per cent* as of May 2022 due to efforts made for metering of unmetered consumers. Further, unmetered consumers have reduced to 2.08 *per cent* at the end of 2022-23 which are mainly attributable to Private Tube Well (PTW) consumers.

The reply is not acceptable as DISCOMs could not comply with UPERC directions of 100 *per cent* metering by March 2018 and the same could not be achieved even by 2022-23.

(b) Higher number of defective meters

As per Clause 7.18 of Electricity Supply Code, 2005, the licensee shall maintain the percentage of defective meters to the total number of meters in service, at a value not greater than 3 *per cent*.

Audit observed that the percentage of defective meters in DISCOMs (except KESCO in the year 2018-19 and onwards) was higher than prescribed norms during 2015-16 to 2022-23 (up to October 2022) as detailed in **Appendix-3.3** and summarised in **Table 3.4** below:

Table 3.4: DISCOM-wise position of Defective Meters (in percentage)

Year	Defective Meters (in percentage)				
	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO
2015-16	7.30	9.35	6.53	10.92	8.17
2016-17	20.63	13.14	4.71	16.88	5.93
2017-18	30.90	24.82	8.23	25.61	3.41
2018-19	24.28	21.20	12.88	21.52	1.33
2019-20	15.72	13.62	9.56	20.58	1.39
2020-21	10.13	4.66	4.76	12.57	0.80
2021-22	7.02	3.94	5.90	12.41	0.90
2022-23 (up to October 22)	5.06	3.43	4.92	10.90	0.20

Source: Information provided by UPPCL

[8] There were no unmetered connections under LMV-4 (Light, Fan and Power for Public and Private Institutions), LMV-6 (Small & Medium Power up to 100 HP/75 kW) and LMV-7 (Public Water Works) categories of consumers.

It can be seen from the above that though the DISCOMs showed improvement in reducing the percentage of defective meters, it remained above the prescribed norm of three *per cent* and ranged from 3.41 to 30.90 *per cent* (except KESCO in the years 2018-19 onwards) during 2015-16 to 2022-23 (up to October 2022). This shows that DISCOMs made inadequate efforts to minimise the number of defective meters. Higher number of defective meters adversely affected the billing efficiency of the DISCOMs.

The Department stated in reply that DISCOMs have made their best efforts for timely replacement of defective meters. As a result, the percentage of defective meters was reduced to 7.10 *per cent* as of March 2022. Defective meters are also on the higher side due to shortage in timely supply of meters. Further, defective meters have reduced to below three *per cent* in three DISCOMs *viz.* DVVNL, PVVNL and KESCO by the end of year 2022-23 and in remaining DISCOMs, defective meter cases are being constantly reduced.

The fact remains that the percentage of defective meters could not be achieved within the norm of three percent during 2015-16 to 2021-22 and it could not be brought within the norm in all the DISCOMs even by 2022-23.

(c) Higher distribution losses

Audit noticed that distribution losses of DISCOMs (except DVVNL for the year 2015-16, PVVNL for the years 2015-16 to 2017-18 and KESCO for the years 2015-16 to 2019-20) were on the higher side in comparison to losses approved by UPERC in true-up petition. The details of actual and approved distribution losses pertaining to period 2015-16 to 2021-22 are given in **Table 3.5** below:

Table 3.5: Distribution losses not allowed by UPERC

(in percentage)

YEAR/ DISCOM	2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22	
	Distribution loss		Distribution loss		Distribution loss		Distribution loss		Distribution loss		Distribution loss		Distribution loss	
	Actual	Approved by UPERC	Actual	Approved by UPERC	Actual	Approved by UPERC	Actual	Approved by UPERC	Actual	Approved by UPERC	Actual	Approved by UPERC	Actual	Approved by UPERC
DVVNL	24.45	24.45	24.43	23.82	25.09	20.07	21.95	16.25	22.16	12.10	25.90	11.80	25.64	11.33
MVVNL	22.20	21.03	22.84	21.52	22.19	19.16	23.26	16.09	22.59	11.80	20.22	11.51	17.36	11.04
PVVNL	18.65	18.65	18.57	18.57	17.43	17.43	17.64	14.83	18.11	11.80	17.85	11.51	17.98	11.04
PUVVNL	23.02	20.93	22.74	21.57	23.16	19.73	21.75	16.43	20.47	12.20	20.65	11.83	20.15	11.36
KESCO	18.34	18.34	16.26	16.26	13.00	13.00	8.51	8.51	7.76	7.76	10.45	8.42	9.61	8.25

Source: Tariff order/true-up order of UPERC

It can be seen from the above that due to higher distribution losses, billing efficiency of DISCOMs was adversely affected. DISCOMs failed to reduce the losses despite being controllable factor as stipulated in Regulation 18.1 of UPERC (Multi Year Distribution Tariff) Regulations, 2014.

The Department replied that higher distribution losses were due to increase in rural consumers who were geographically more diversified, increase in supply hours in rural areas, movement of HT consumers to open access *etc.*, leading to higher line losses. Further, while issuing true-up orders, UPERC did not allow sharing of losses on account of higher distribution losses wherein adequate provisions were there in Tariff Regulations, appeal against which has been filed by DISCOMs in APTEL. Distribution losses have reduced to 16.65 *per cent* in 2022-23 and DISCOMs are constantly working for reducing distribution losses.

The reply is not acceptable as DISCOM-wise targets of distribution losses fixed by UPERC could not be achieved although the same being a controllable factor could have been minimised by the DISCOMs.

Factors affecting the Collection Efficiency of DISCOMs

3.4.4 The main factors which affected the collection efficiency of DISCOMs as analysed by Audit are discussed below:

(a) Failure in realisation of revenue arrears

The DISCOMs are responsible for realisation of revenue billed to its consumers. Accumulation of arrears due to not realising the billed revenue affects the DISCOMs' financial health adversely. DISCOMs are required to take effective steps for realisation of revenue arrears. The arrears detail of DISCOMs during March 2016 to March 2022 are given in **Table 3.6** below:

Due to failure to take action by DISCOMs as per provisions of Supply Code and inadequate efforts for realising dues from consumers huge arrears of ₹ 87,195.18 crore were accumulated.

Table 3.6: Position of arrears of DISCOMs

(₹ in crore)

Year	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	All DISCOMs
2015-16	8,813.39	7,531.71	4,888.88	12,584.29	2,025.00	35,843.27
2016-17	10,785.25	10,143.75	6,787.75	16,800.11	2,257.11	46,773.97
2017-18	12,590.11	13,011.72	8,329.38	20,360.28	2,517.89	56,790.23
2018-19	15,212.10	16,136.09	10,042.98	24,098.04	2,730.69	68,180.63
2019-20	18,289.80	18,647.02	10,819.89	27,225.55	2,948.72	77,930.98
2020-21	19,502.07	20,957.69	10,742.49	29,050.87	3,045.51	83,298.63
2021-22	18,599.05	22,485.80	11,587.49	31,146.60	3,376.24	87,195.18

Source: Annual Financial Statement of DISCOMs

It can be seen from the above that total arrears of DISCOMs had increased by 143 *per cent* from ₹ 35,843.27 crore in 2015-16 to ₹ 87,195.18 crore in 2021-22.

During scrutiny of records of 64 Distribution Divisions[9] under 18 selected Circle Offices, Audit noticed that the main reasons for continuous increase in arrears were failure to take action as per provisions of electricity Supply Code, 2005 and inadequate efforts for realisation of arrears from live consumers[10], temporarily disconnected and permanently disconnected consumers and in theft cases. These are discussed in succeeding paragraphs.

(i) Inadequate efforts in recovery of arrears from consumers

Clause 4.36 of Electricity Supply Code, 2005 stipulates that supply shall be disconnected temporarily, within the disconnection date indicated in the notice served to the consumer, but not less than 15 days, if electricity bills are not paid. Audit noticed that arrears of electricity charges amounting to ₹ 4,474.28 crore against 17.10 lakh live consumers were outstanding for more than three months[11] as per billing data of October 2022 of the selected 64 Divisions. The Divisions failed to take necessary steps to recover the dues from them or disconnect their connections as per Clause 4.36 of Electricity Supply Code

[9] 36 Urban Divisions and 28 Rural Divisions.

[10] Live consumers are those whose connections are not disconnected.

[11] A reasonable time of three months has been taken by audit for analysing arrears position considering 15 days for dispatch of bills prior to the due date of payment, minimum 15 days' time for disconnection in case bills are not paid and security deposit equivalent to bill amount of 45 days taken from the consumers.

2005. The inaction on the part of Divisions adversely affected the Collection Efficiency of DISCOMs.

In reply, the Department stated that DISCOMs have put in their best efforts to recover the outstanding dues from the consumers such as engagement of agencies on commission basis, allowing meter readers to collect revenue through pre-paid wallet system, introducing various schemes *viz.*, One Time Settlement, Asan Kisht Yojna etc. With all the efforts in place, collection efficiency has increased from 76.78 *per cent* in the year 2015-16 to 85.85 *per cent* in the year 2019-20. Further, collection efficiency has increased to 93.57 *per cent* in 2022-23 and regular monitoring at all levels are being done to further improve the collection efficiency.

The reply is not acceptable as the Divisions did not undertake prompt disconnection of defaulting consumers as per provisions of Electricity Supply Code, 2005 which led to piling up of arrears year after year.

(ii) Failure to recover dues against temporary disconnection cases

Clause 4.38 (b) of Electricity Supply Code, 2005 stipulates that supply shall be disconnected permanently if the cause for which supply was temporarily disconnected is not removed within 6 months' period.

Audit noticed that connections of 1.94 lakh consumers had been temporarily disconnected for more than six months as of October 2022 against whom dues of ₹ 578.21 crore was pending for recovery. The Divisions could neither recover dues nor permanently disconnect the connections even after lapse of more than 6 months from date of temporary disconnection as per above provision of Electricity Supply Code, 2005. This adversely affected the Collection Efficiency of DISCOMs.

In reply, the Department stated that DISCOMs have put in their best efforts to recover the dues from the temporary disconnection cases and monthly monitoring of temporary disconnection cases is being done.

The reply is not acceptable as Divisions had not permanently disconnected these connections within the stipulated time as per provisions of Electricity Supply Code, 2005.

(iii) Failure to recover dues from permanently disconnected consumers

Audit noticed that 2.05 lakh consumers were permanently disconnected by the Divisions up to October 2022 against which ₹ 2,716.09 crore was pending for recovery. The Divisions failed to recover dues of these consumers which adversely affected the collection efficiency of DISCOMs.

In reply, the Department stated that appropriate action is being taken to realise dues from permanently disconnected cases. Wherever the revenue could not be realised, recovery certificates against defaulting consumers have been issued.

The fact remains that dues against permanently disconnected consumers were pending for recovery.

(iv) Failure to realise the assessed amount in theft/irregularity cases

Audit noticed that assessment of 1,03,461 cases of theft/irregularity having value of ₹ 573.13 crore had been made by the Divisions during 2017-18[12] to 2022-23 (up to October 2022) against which only ₹ 114.76 crore (20.02 *per cent*) were recovered in 36,947 cases. The Divisions did not take appropriate action in compliance of Clause 8.1 and 8.2 of the Electricity Supply Code, 2005 such as disconnection of supply of electricity, remove meter and service line and also file a case against the consumer in designated special court against those who did not deposit assessed amount. As a result, ₹ 458.37 crore in 66,514 theft cases remained unrealised as of October 2022. This adversely affected the Collection Efficiency of DISCOMs.

In reply, the Department stated that appropriate action has been taken for realisation of revenue in assessed theft cases. A dedicated RAID portal has been operationalised for quick and effective monitoring of raids conducted, revenue assessed and recovery of such revenue. Wherever, the revenue could not be realised by DISCOMs, Recovery Certificates have been issued.

The reply is not acceptable as recovery against theft cases was only 20.02 *per cent* in audited Divisions.

(b) Recovery of fixed rate instead of tariff rate from departmental consumers

UPERC Tariff order dated 18 June 2015 provided that the unmetered departmental consumers (LMV-10 category) shall be converted into metered consumers by 31 December 2015 and shall be billed at the fixed rates provided in the tariff order till then. From 01 January 2016 onwards, these LMV-10 category consumers were required to be charged as per the rates applicable for LMV-1 category (domestic) consumers.

Audit noticed that DISCOMs had recovered electricity charges from departmental consumers (LMV-10 category) up to 2017-18 as per the fixed rates notified in the tariff order dated 18 June 2015 and thereafter, as per rates fixed[13] by UPPCL. This was in violation of provisions of the tariff order which provided that LMV-10 category consumers were required to be charged as per the rates applicable for LMV-1 category (domestic) consumers from January 2016. Due to not complying with tariff orders, UPPCL could not realise the differential revenue of ₹ 1,761.55 crore during 2016-17 to 2021-22.

It is also pertinent to mention here that in true up order passed by UPERC for the years 2016-17 to 2021-22, the Commission considered the above differential revenue (difference in revenue required to be recovered as per tariff and revenue actually recovered from departmental consumers) as deemed income of the DISCOMs.

In reply, the Department stated that charges as approved by Board of Directors for departmental officers/employees/pensioners are being recovered.

The reply is not acceptable as billing of departmental consumers was not done as per approved tariff.

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12 Calculated from 2017-18 as data on raid portal was available from 2017-18 onwards.

13 Vide office memorandum no. 58-Mukhya Abhiyanta/Vaa.-1/LMV-10/ (2017-18) dated 07 February 2018.

Recommendation 3:

DISCOMs should ensure achievement of targeted reduction in AT&C losses and overall improvement in billing and collection efficiency. Further, DISCOMs should ensure metering of unmetered connections including departmental consumers in a time bound manner, reduction in percentage of defective meters up to permissible limit and make efforts for timely recovery of arrears from the consumers.

Failure in elimination of ACS-ARR Gap

3.4.5 As per Clause 1.3 (e) of UDAY MoU, DISCOMs were required to eliminate the gap between ACS-ARR by the year 2019-20.

None of the UP DISCOMs could eliminate the ACS-ARR gap by 2021-22 against the target of eliminating the gap by 2019-20.

Audit noticed that the DISCOMs could not eliminate the gap between ACS and ARR as detailed in **Table 3.7** below:

Table 3.7: Target and Achievement of ACS-ARR Gap of DISCOMs

DISCOM	ACS-ARR gap (in ₹ per unit)			
	Target Up to 2019-20	Achievement Up to 2019-20	Achievement up to 2020-21	Achievement up to 2021-22
DVVNL	0.06	-0.25	-0.87	-1.15
MVVNL	0.06	-0.29	-0.39	-0.84
PVVNL	0.06	-0.31	-1.12	-0.20
PuVVNL	0.06	-0.46	-1.32	-0.20
KESCO	0.06	-0.65	-0.50	-0.58
All DISCOMs	**0.06**	**-0.34**	**-0.94**	**-0.56**

Source: Information furnished by UPPCL

It may be seen from the above that none of the DISCOMs could eliminate the ACS-ARR gap by 2021-22. Due to not achieving the targets, cost of supply could not be set off from realisable revenue. The main reasons for not achieving the targets were failure in reducing power purchase cost, disallowance of expenditure incurred in excess of norms by UPERC and also failure to improve revenue realisation as discussed in succeeding **Paragraphs 3.4.6** and **3.4.7**. Further due to poor billing and recovery of dues, the revenue realisation was adversely affected resulting in shortage of funds with DISCOMs and consequent delay in payment of bills of power generators leading to payment of late payment surcharge. This further increased the average cost of power thereby adversely affecting the ACS-ARR gap.

In reply, the Department stated that DISCOMs Revenue Assessment per unit of energy input increased from ₹ 4.09/kWh in 2015-16 to ₹ 4.82/kWh in 2019-20 despite constraints in increase of income on account of shifting of major industries to open access, increase in rural consumer base, increase in supply for agriculture consumers, abolishing of Regulatory Surcharge by UPERC, various disallowances by UPERC etc. Power purchase cost could not be optimised due to increase in coal prices, railway transportation charges, taxes and duties, *etc*. Further, inadequate revenue collection from rural consumers forced the DISCOMs to take working capital loans which in turn increased the interest burden. It was also stated that one of the major reasons for higher ACS-ARR gap is increase in power purchase cost due to various uncontrollable factors and also due to the reason that there has been no increase in consumer tariff for past four years to offset the increase in cost.

The fact remains that DISCOMs failed to achieve the target of elimination of ACS-ARR gap as envisaged in MoU due to failure in reducing average cost of supply and increasing average realisable revenue on account of various controllable factors discussed in subsequent paragraphs.

Factors affecting the Average Cost of Supply

3.4.6 The main factors which affected the average cost of supply as analysed by Audit are discussed hereunder:

(a) Failure in reducing average power purchase cost

UPPCL purchases power from State Power Generating Companies/other Power Generators and sells it to the DISCOMs as per their requirement. Audit noticed that there were various instances where power purchase cost could not be reduced due to failures/deficiencies on the part of UPPCL/DISCOMs as discussed below. This adversely impacted the Average cost of Supply of Power.

(i) Late payment surcharge paid to Generators not allowed by UPERC

Audit noticed that UPPCL had paid late payment surcharge (LPS) on the monthly power purchase bills of generators due to delayed payment of bills. The details of payment of surcharge disallowed by UPERC during 2018-19[14] to 2020-21 are given in **Table 3.8** below:

Table 3.8: Late Payment Surcharge paid to generators disallowed by UPERC

Financial Year	Late payment surcharge paid to Power Generators disallowed by UPERC (₹ in crore)
2018-19	1,133.67
2019-20	1,447.06
2020-21	3384.40
Total	**5,965.13**

Source: Tariff order/true-up order of UPERC for concerned years

Audit observed that UPPCL could not pay the bills of generators within due time due to which it had to bear late payment surcharge. UPERC had disallowed LPS from power purchase cost while truing up of the tariff for the year 2018-19 to 2020-21. Effect of not allowing the LPS paid to the generators was that such surcharge could not be recovered from the consumers through tariff. This adversely affected the Average cost of Supply of Power.

In reply, the Department accepted that due to poor revenue collections, DISCOMs were not able to pay generators' bills in time, therefore ended up paying LPS.

(ii) Disallowance of Power Purchase from other States

Audit noticed that DISCOMs purchased additional power from other States' DISCOMs for supply of power to its licenced areas situated at remote areas in some border districts as given in the **Table 3.9** below:

Table 3.9: Purchase of Power from unapproved sources

Year	DISCOM	Source of power	Amount (₹ in crore)
2018-19	PVVNL	Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL)	0.30
2018-19	PuVVNL	South Bihar Power Distribution Company Limited (SBPDCL)	6.19
2019-20	PVVNL	UHBVNL	0.37
2019-20	PuVVNL	SBPDCL	8.57

[14] LPS was not disallowed in true-up orders of 2015-16 to 2017-18.

Year	DISCOM	Source of power	Amount (₹ in crore)
2020-21	PVVNL	UHBVNL	0.40
2020-21	PuVVNL	Direct purchase from Generators	6.47
2021-22	PVVNL	UHBVNL	0.44
2021-22	PuVVNL	Direct purchase from Generators	7.95
Total			**30.69**

Source: Tariff order/true-up order of UPERC

Audit observed that power purchase from other States' DISCOMs was disallowed by UPERC in true-up petitions of 2018-19 to 2021-22 on the ground that power purchase was made without getting prior approval of UPERC. As DISCOMs failed to take prior approval of UPERC for purchase of additional power, expenses towards such purchase of power had to be borne by DISCOMs. This adversely impacted the Average cost of Supply of Power.

In reply, the Department stated that these expenses have been incurred by DISCOMs from a long time, thereby honoring the agreements signed with other States. Despite, the best efforts to claim such power purchase cost in true-up petitions, the same was disallowed by UPERC.

The reply is not acceptable as DISCOMs failed to obtain prior approval of UPERC for purchase of additional power from other States resulting in disallowance of these expenditures by UPERC.

(b) Expenditure incurred in excess of norms disallowed by UPERC

As per provisions of UPERC (Multi Year Distribution Tariff) Regulations, 2014, expenses incurred by DISCOMs are allowed on the basis of specified norms. Any expenditure over and above the norms is disallowed by the UPERC.

Audit observed that DISCOMs failed to keep their costs within UPERC norms. UPERC disallowed a portion of major expenses like employee cost, administrative and general expenses, repair and maintenance expenses, UPPCL's operation and maintenance (O&M) expenditure and Depreciation, while truing up the tariff petitions for the years 2015-16 to 2021-22 on the ground that the expenditure was not in accordance with the fixed norms. The details of claim made by DISCOMs and approval there against by UPERC are given in **Table 3.10** below:

Table 3.10: Statement showing details of expenditure disallowed by UPERC

(₹ in crore)

Year	Particulars	Employee cost	Administrative & General Expenses	Repair & Maintenance Expenses	UPPCL O&M expenditure	Depreciation	Total disallowed expenditure
2015-16	Claimed	2,265.74	300.04	870.35	255.55	1,921.64	
	Approved	2,019.63	354.84	1,036.10	0	1,892.16	
	Difference	246.11	-54.80	-165.75	255.55	29.48	310.59
2016-17	Claimed	2,347.76	321.97	913.66	202.13	2,074.59	
	Approved	2,354.61	320.29	907.94	0	1,962.30	
	Difference	-6.85	1.68	5.72	202.13	112.29	314.97
2017-18	Claimed	3,808.54	695.65	2,190.66	238.04	1,405.00	
	Approved	2,162.40	548.20	1,883.84	0	1,209.34	
	Difference	1,646.14	147.45	306.82	238.04	195.66	2,534.11
2018-19	Claimed	2,447.54	1,887.66	2,232.34	290.69	1,299.03	
	Approved	2,447.54	739.45	2,175.73	0	1,114.54	
	Difference	0	1,148.21	56.61	290.69	184.49	1,680.00
2019-20	Claimed	2,869.41	2,275.53	2,483.69	121.07	1,097.16	

Year	Particulars	Employee cost	Administrative & General Expenses	Repair & Maintenance Expenses	UPPCL O&M expenditure	Depreciation	Total disallowed expenditure
	Approved	2,794.92	736.70	2,458.53	0	1,355.00	
	Difference	74.49	1,538.83	25.16	121.07	-257.84	1,501.71
2020-21	Claimed	3,839.72	804.68	2,531.50	-	2,856.41	
	Approved	2,587.75	692.73	1,912.15	-	1,165.19	
	Difference	1,251.97	111.95	619.35	-	1,691.22	3,674.49
2021-22	Claimed	4,096.93	824.13	2,592.67	-	1,650.86	
	Approved	3,124.28	782.76	2,177.66	-	1,577.16	
	Difference	972.65	41.37	415.01	-	73.70	1,502.73
Total Difference		**4,184.51**	**2,934.69**	**1,262.92**	**1,107.48**	**2,029.00**	**11,518.60**

Source: Tariff order/true-up order of UPERC

It can be seen from the above that significant portion of expenses were disallowed by UPERC for the reasons given below:

- Employee cost, Administrative and Repair & maintenance expenses were controllable factors, hence could have been maintained within the norms by DISCOMs.
- UPPCL O&M expenditure was disallowed as the procurement of power was the responsibility of the DISCOMs for which the Commission allowed considerable amount of O&M expenses to DISCOMs.
- Depreciation was disallowed due to incorrect consideration of Gross Fixed Assets Base and change in methodology of calculating depreciation as stipulated in UPERC (Multi Year Distribution Tariff) Regulations, 2019.

Resultantly, this disallowed expenditure had to be borne by the DISCOMs which significantly increased the average cost of supply of power.

UPPCL replied that as per Tariff Regulations, expenses over and above the norms are disallowed by UPERC and the same are to be borne by DISCOMs. Further, UPPCL has filed an appeal in Hon'ble APTEL in this regard.

The reply is not acceptable as DISCOMs failed to keep the expenses under the allowable limit as per norms specified in Tariff Regulations. Further, APTEL had dismissed the similar type of appeal[15] of DISCOMs earlier.

Recommendation 4:

DISCOMs should evolve a time bound framework to eliminate ACS-ARR gap to improve their financial position.

Factors affecting the Average Realisable Revenue

3.4.7 The main factors which affected the average realisable revenue as analysed by Audit were failure in installation of meter on unmetered connections, excessive number of defective meters, recovery of fixed rate instead of tariff rate from departmental consumers, failure in timely filing of tariff petitions and non-revision of tariff which have been discussed in **Paragraphs 3.4.3 (a), (b), 3.4.4 (b) and 3.4.8**.

[15] APTEL order dated 23 November 2015 in appeal no. 128 of 2014.

Failure in timely filing of tariff petitions

3.4.8 Clause 1.3 (k) (ii) of UDAY MoU provides that DISCOMs shall undertake the timely filing of Aggregate Revenue Requirement[16]/tariff petition before UPERC so that tariff order may be issued for the year as early as possible. The Distribution Tariff Regulations[17] effective from time to time envisaged the timelines of filing of ARR/tariff petition[18] for finalisation of tariff of subsequent years and required to be complied with by all DISCOMs. Further, the Regulations also provide that the Commission shall within a period of 120 days from receipt of complete application for ARR/tariff determination and after considering all suggestions and objections received from the public, issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order.

The details of DISCOM-wise tariff petition submitted *vis-à-vis* defined timelines of such submission according to the applicable tariff regulation is given in **Table 3.11** below:

Table 3.11: Delay in filing of tariff petitions

DISCOM/ Year	Target date as per Regulations	Date of filing					Delay in filing of tariff petition
		DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	
2016-17	30-11-15	07-12-15	07-12-15	07-12-15	07-12-15	30-11-15	7 days[19]
2017-18	01-11-16	21-06-17	21-06-17	21-06-17	21-06-17	30-11-16	232 days[20]
2018-19	01-11-17	29-10-18	29-10-18	29-10-18	29-10-18	29-10-18	362 days[21]
2019-20	01-11-18	11-03-19	11-03-19	11-03-19	11-03-19	11-03-19	130 days
2020-21	30-11-19	30-06-20	30-06-20	01-07-20	30-06-20	29-06-20	213 days[22]
2021-22	30-11-20	22-02-21	22-02-21	22-02-21	22-02-21	22-02-21	84 days
2022-23	30-11-21	08-03-22	08-03-22	08-03-22	08-03-22	08-03-22	98 days

Source: Tariff petitions filed in UPERC by DISCOMs

From the above table, it can be seen that in violation of the timelines defined under the regulation and provisions of UDAY MoU, there was delay by DISCOMs in submission of tariff petitions ranging from 7 days to 362 days during 2016-17 to 2022-23 and also there was delay on the part of DISCOMs in furnishing further information/clarification sought by UPERC, resulting in delayed issuance of tariff order by UPERC. The details of delay in finalisation of tariff are given in **Table 3.12** below:

[16] Aggregate Revenue Requirement means the costs pertaining to the licensed business which are permitted, in accordance with these regulations, to be recovered from the tariffs determined by UPERC.

[17] UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 effective from April 2020, UPERC (Multi Year Distribution Tariff) Regulations, 2014 effective from April 2015.

[18] Distribution Licensee shall file ARR/tariff petitions complete in all respect on or before 1st November/30th November of each year.

[19] Except KESCO.

[20] Except KESCO where delay was 29 days.

[21] The tariff petition was submitted by DISCOMs after suo moto initiation of proceeding by UPERC (order dated 30 August 2018) for determination of tariff for financial year 2018-19.

[22] Delay was 214 days and 212 days in case of PVVNL and KESCO, respectively.

Table 3.12: Delay in finalisation of tariff

Year	Admittance order date[23] of UPERC	Date of finalisation of Tariff order by UPERC	Delay in finalisation of tariff counted from 1st April of the respective year[24]
2016-17	29-03-16	01-08-16	4 months
2017-18	04-09-17	30-11-17	8 months
2018-19	13-11-18	22-01-19	10 months
2019-20	01-07-19	03-09-19	5 months
2020-21	28-07-20	11-11-20	7 months
2021-22	08-04-21	29-07-21	4 months
2022-23	21-04-22	20-07-22	3 months

Source: Tariff order/true-up order of UPERC

Delay in filing tariff petitions by DISCOMs resulted in delayed recovery of increased tariff from consumers' amounting to ₹ 7,143.97 crore.

Delay in finalisation of tariff orders resulted in delayed recovery of increased tariff rate from consumers to the tune of ₹ 7,143.97 crore[25] by DISCOMs during the period 2016-17 to 2019-20 and 2022-23[26]. Further, there has been no increase in electricity tariff during 2020-21 to 2022-23 (except for LMV-8 category consumers in 2022-23) leading to lesser revenue realisation in comparison to cost of electricity which adversely affected the ACS-ARR gap.

In reply, the Department stated that information regarding amount of Government subsidy was required for calculation of revenue gap to be bridged by the tariff proposal. Declaration of subsidy is prerogative of GoUP and DISCOMs have no control over it. Due to above, submission of tariff petitions got delayed. Further, UPERC has mandated licensees to submit the ARR related information under formats which are new and data for the same is collected from different DISCOMs which consume a lot of time and thereby results in delay in filing of tariff petitions.

The reply is not acceptable as DISCOMs have filed tariff petitions before receipt of subsidy order from GoUP. Hence delays in filing of tariff petitions by DISCOMs cannot be attributed to this reason. Further, filing of tariff petitions is a regular phenomenon which is to be done every year. Therefore, related exercises should be timely initiated and completed so that tariffs petitions could be filed timely.

Recommendation 5:

DISCOMs should ensure timely submission of tariff petitions to UPERC to avoid delayed recovery of increased tariff from consumers.

Delay in preparation of Annual Accounts

3.4.9 Clause 1.3 (k) (iii) of UDAY MoU provided that DISCOMs shall undertake timely preparation of their annual accounts, which shall also enable timely filing of the tariff petitions. Further, Section 96 read with Section 129 (2)

[23] The date on which UPERC shall issue an admittance order upon receipt of a complete application accompanied by all requisite information, particulars and documents in compliance with all the requirements specified in UPERC (Multi Year Distribution Tariff) Regulations, 2014.

[24] Date of submission of tariff petition as per Regulation (1 November or 30 November as applicable) + 120 days defined for finalisation of tariff by UPERC.

[25] Calculated on differential rate of approved tariff of each category taking consumer base of March end of respective year.

[26] During 2022-23, tariff applicable for LMV-8 (STW, Panchayati Raj Tube well & Pumped Canals) has been merged with LMV-7 (Public Water Works) having higher tariff, hence, tariff rate for LMV-8 consumers has only been increased.

of the Companies Act, 2013 provide that the first Annual General Meeting (AGM) of the Company shall be held within a period of nine months from the date of closing of the first financial year and in other case, within a period of six months, from the date of closing of the respective financial year, and at every AGM, the Board of Directors of the company shall lay before such meeting, financial statements for the financial year. Thus, financial statements of a company should be prepared within a period of six months from the date of closing of the financial year *i.e.* up to 30 September of every year.

Audit observed that annual accounts of DISCOMS were finalised with a delay ranging from two months to 15 months in the years 2015-16, 2016-17, 2019-20 and 2020-21 **(Appendix-3.4)** from the scheduled date of finalisation. In the years 2017-18 (except PVVNL), 2018-19 and 2021-22, annual accounts were finalised within the scheduled date of finalisation. The delay in finalisation of annual financial statements resulted in delay in true-up of tariffs based on the actual figures of revenue and expenditure as per audited financial statements.

In reply, the Department stated that after transfer of transmission business to UP Power Transmission Company *w.e.f.* 01 April 2007, the initial accounts for 2007-08 was delayed by four years which caused delay in finalisation of accounts for subsequent years. Further, at present, preparation of annual accounts and audit of same are being carried out before 30 September of the year.

The reply is not acceptable as there was sufficient time to streamline the finalisation of accounts after separation of transmission business in 2007-08. Therefore, annual accounts should have been prepared timely during above years.

Delay in achieving 100 per cent feeder metering

3.4.10 As per Clause 1.3 (i) (v) of UDAY MoU, the target date for achieving 100 *per cent* feeder[27] metering was 30 September 2016. Feeder metering is required to identify high loss-making feeders and take corrective actions.

Audit noticed that DISCOMs completed feeder metering on 2,120 feeders against 2,862 feeders[28] by September 2016. Though, DISCOMs had subsequently completed feeder metering on all feeders by 31 March 2020, but delay in feeder metering resulted in failure in identification of high loss making feeders and taking corrective action during the delay period.

In reply, the Department accepted (March 2023) that feeder metering target could not be achieved in time due to fund limitation. Although it was completed on all feeders by March 2020.

Not achieving the targets of 100 per cent Distribution Transformer metering

3.4.11 As per Clause 1.3 (i) (iv) of UDAY MoU, the target date for achieving 100 *per cent* Distribution Transformer (DT) metering was 30 September 2017.

The target fixed for DT metering by DISCOMs and actual installation by 30 September 2017 is depicted in **Table 3.13**:

[27] Feeder means a high tension or extra high tension line emanating from a sub-station to which a distribution sub-station or high tension or extra high tension consumers or low tension line are connected.

[28] As on 31 March 2016.

Table 3.13: Target and achievement of DT Metering by DISCOMs as on 30 September 2017

Name of DISCOM	Target as per UDAY Portal	DT meters installed by 30 September 2017	Shortfall against target	Shortfall in percentage
DVVNL	3,948	1,892	2,056	52
MVVNL	45,395	0	45,395	100
PVVNL	2,21,192	7,255	2,13,937	97
PuVVNL	3,12,190	16,624	2,95,566	95
KESCO	4,014	2,742	1,272	32
Total	**5,86,739**	**28,513**	**5,58,226**	

Source: Information reported on UDAY Portal

It can be seen from the above that the DISCOMs could not achieve the target fixed for installation of DT meters by 30 September 2017 and DISCOM-wise shortfall ranged from 32 to 100 *per cent*. Further, none of the DISCOMs could achieve the target of DT metering even by October 2022 as achievement was only 3,52,889 (13.74 *per cent*) against total 25,67,667 installed DTs. This resulted in failure to identify loss pocket areas for taking corrective action.

In reply, the Department stated that DT meter installation work was subject to availability of funds under the relevant schemes. Now the work of installation of smart meters on all the DTs has been taken up by all DISCOMs under Revamped Distribution Sector Scheme.

The fact remains that the target of 100 *per cent* metering as envisaged in UDAY MoU could not be achieved.

Delay in achieving the targets of feeder segregation work

3.4.12 As per Clause 1.3 (i) (viii) of UDAY MoU, DISCOMs shall undertake Physical Feeder Segregation by March 2018, in accordance with sanction of funds under the relevant scheme.

DISCOMs fixed target of segregation of 2,227 agricultural feeders to be executed under DDUGJY Scheme. The DISCOM-wise target and achievement is given in **Table 3.14** below:

Table 3.14: Target and achievement of Feeder segregation by DISCOMs

Sl. No.	Name of DISCOM	Target fixed for feeder segregation	Achievement by March 2018	Shortfall against target	Shortfall in percentage	Achievement by March 2021
1.	DVVNL	691	283	408	59	691
2.	MVVNL	184	91	93	51	184
3.	PVVNL	1,154	374	780	68	1,154
4.	PuVVNL	198	47	151	76	198
Total		**2,227**	**795**	**1,432**	**64**	**2,227**

Source: Information provided by UPPCL

It can be seen from the above table that 64 *per cent* agricultural feeders could not be segregated within stipulated timeframe of UDAY Scheme and DISCOM-wise shortfall ranged from 51 to 76 *per cent*. However, the targets were achieved by the end of March 2021.

The Department replied that due to procedural requirements in tendering such as non/lesser participation of bidders and re-tendering, there was initial delay ranging from one to six months in awarding the contracts. Thereafter, various factors such as Right of Way issues (NH/Railway crossing, diversion of lines, objections by villagers, heavy rains, crops on the route), Covid-19 pandemic, execution of additional works as per site conditions *etc*., caused delay in completion of work, for which time extension was sought from REC. However, feeder segregation work has been completed within extended deadline *i.e*. March 2021 under DDUGJY (New) Scheme and closures for all the projects have been submitted to and approved by REC.

The fact remains that feeder segregation work could not be completed within the time prescribed in UDAY MoU.

Short achievement of target of installation of Smart Meters

3.4.13 As per UDAY MoU, the target date for installation of Smart Meters[29] for all consumers consuming above 500 units per month was 30 June 2018 and that for all consumers consuming above 200 units per month was 31 March 2020. The total number of eligible consumers for smart metering as of March 2020 in all the DISCOMs was 37.34 lakh.

Audit observed that UPPCL submitted smart metering roll out plan to UPERC in August 2018 which was approved by UPERC in November 2018. As per roll out plan, smart metering was to be done on the criteria of urban areas, high energy input and high AT&C loss areas instead of consumption based smart metering as envisaged in UDAY MoU. The roll out plan contained year wise targets for installation of smart meters by the DISCOMs as mentioned in **Table 3.15** below:

Table 3.15: Year wise smart metering targets as per roll out plan

(Nos. in lakh)

DISCOMs	Year 1	Year 2	Year 3	Total
(a)	(b)	(c)	(d)	(e)
DVVNL	2.12	2.64	1.53	6.29
MVVNL	2.32	2.37	4.35	9.04
PVVNL	4.01	4.18	3.44	11.63
PuVVNL	5.11	4.95	1.41	11.47
KESCO	1.32	0.25	0	1.57
Total	**14.88**	**14.39**	**10.73**	**40.00**

Source: Information submitted to UPERC by UPPCL

Audit further observed that against the target of 40 lakh smart metering, the DISCOMs could install only 11.54 lakh[30] smart meters till March 2022.

Thus, due to failure in installation of smart meters as per target, DISCOMs could not get the intended benefit of reduction in theft and improving billing efficiency which could have helped in reduction of AT&C losses of the DISCOMs.

The Department stated in reply that as per roll out plan approved by UPERC, AT&C loss based area were selected for smart metering instead of consumption based roll out. Further, a number of technical and practical complications on the part of suppliers, besides limited supply, were encountered which consumed a significant amount of time. In addition to above, there were misconceptions for smart meters among consumers and lack of information and awareness among

[29] Meters having features of bidirectional communications, integrated load limit, connect/disconnect switch, prepaid/Time of Day features, tamper event detection, recording and reporting and net metering.

[30] DVVNL: 1.48 lakh, MVVNL: 3.79 lakh, PVVNL: 1.99 lakh, PuVVNL: 3.21 lakh and KESCO: 1.07 lakh.

officers/employees of DISCOMs. In August 2020, the project work was temporarily postponed for improving the quality of meters and some technical aspects of the project.

The reply is not acceptable as UDAY MoU was signed in January 2016, whereas UPPCL signed MoU for installation of smart meters in April 2018 *i.e.* more than two years after signing of UDAY MoU. This delay in initiation of project contributed to further delay in implementation of the project. Further, the targets mentioned in roll out plan could not be achieved by DISCOMs.

Monitoring of the performance of DISCOMs under UDAY

3.5 The details of monitoring of the performance of DISCOMs under UDAY are discussed below:

Monitoring of UDAY at DISCOMs Level

3.5.1 Clause 1.3 (q) and (r) of UDAY MoU provided that CMD/MD of DISCOMs shall monitor the performance of DISCOMs on monthly basis and monthly monitoring formats along with quarterly targets shall be provided by the DISCOMs by 31 March 2016.

The DISCOMs failed to provide the monitoring related documents/records to Audit under UDAY Scheme. In the absence of records, the monitoring of UDAY at DISCOMs level could not be examined in audit.

The Department replied that dedicated UDAY cells were created at each of the DISCOM for monitoring the progress of UDAY parameters. Monthly targets for Divisions were fixed and regular monitoring was done.

The Reply is not acceptable as no monitoring related records such as minutes of monthly meetings were provided to Audit.

Incorrect reporting on UDAY portal

3.5.2 Clause 6.2 of the UDAY OM provides that MoP will devise a suitable review mechanism with representation from the Ministry of Finance, GoI to ensure a close monitoring of performance of DISCOMs on monthly basis to prevent any slippage. For monitoring of performance, DISCOMs upload their monthly performance on UDAY portal[31].

Audit noticed that DISCOMs reported various parameters as envisaged in UDAY MoU on UDAY portal on the basis of provisional figures. However, the actual figures were not got updated on the portal by the DISCOMs after the same became available. The details of deviation in actual and reported figures on UDAY portal of AT&C losses and ACS-ARR gap are detailed in **Table 3.16** below:

[31] UDAY portal is a portal created by Ministry of Power, GoI to show progress achieved by different states on different parameters as set out in UDAY Scheme.

Table 3.16: Details of actual figures and reported figures of AT&C losses and ACS-ARR gap on the UDAY portal

AT&C losses:

Particulars	Unit	2015-16	2016-17	2017-18	2018-19	2019-20
Actual figures of AT&C loss	*Per cent*	39.86	40.97	37.78	33.40	30.02
AT&C loss reported on UDAY portal on the basis of provisional figures	*Per cent*	32.09	30.21	27.67	24.64	30.30

Source: Information furnished by UPPCL and data reported on UDAY portal

ACS-ARR gap:

Particulars	Unit	2019-20
Actual figures of ACS-ARR gap	₹ per unit	- 0.34
ACS-ARR gap reported on UDAY portal on the basis of provisional figures	₹ per unit	- 0.07

Source: Information furnished by UPPCL and data reported on UDAY portal

It can be seen from the above that AT&C losses and ACS-ARR gap were incorrectly reported on UDAY portal.

The Department stated that data was fed as available at the time of feeding by DISCOMs. There was a gap in the initial year's data. However, in the year 2019-20 the fed figures are almost similar.

The reply is not acceptable as feeding the actual data on UDAY portal was the responsibility of DISCOMs.

Conclusion

DISCOMs failed to achieve the targets set under UDAY Scheme of reduction of AT&C losses to 14.86 *per cent* by 2019-20 due to not improving their billing efficiency and collection efficiency mainly on account of failure in installation of meters on unmetered connections; higher number of defective meters; higher distribution losses; failure in realisation of revenue arrears and short recovery of tariff from departmental consumers.

DISCOMs also failed to eliminate ACS-ARR gap by targeted period of 2019-20 due to not reducing average power purchase cost mainly on account of disallowance of expenditure in excess of allowed norms and purchase of power from unapproved sources; late payment surcharge paid to generators; failure in 100 *per cent* metering of unmetered connections; recovery of fixed rate instead of tariff rate from departmental consumers; failure in timely filing of tariff petitions; non-revision of tariff *etc.*

DISCOMs could not achieve various operational milestones fixed under UDAY Scheme in respect of DT metering; smart metering; timely filing of tariff petitions. The monitoring of implementation of UDAY Scheme at DISCOMs level was also deficient.

As a result, the objective of operational turnaround envisaged in the UDAY Scheme could not be achieved.

CHAPTER–IV

Outcome of implementation of UDAY-pre and post UDAY performance of DISCOMs

CHAPTER-IV

Outcome of implementation of UDAY- pre and post UDAY performance of DISCOMs

4.1 As discussed in **Paragraph 1.2** of Chapter-I, UDAY Scheme envisaged financial and operational turnaround of DISCOMs. The outcome of implementation of UDAY Scheme in DISCOMs of Uttar Pradesh in terms of pre *vis-à-vis* post UDAY financial and operational performance of DISCOMs are discussed in the succeeding Paragraphs.

Pre and post-UDAY financial performance of DISCOMS

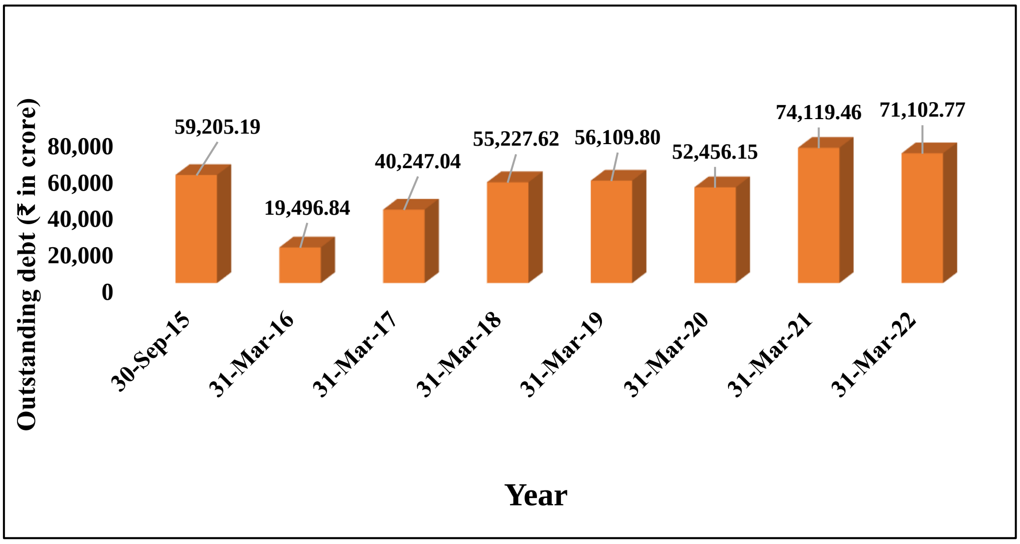
4.2 For financial turnaround of DISCOMs, UDAY Scheme provide a framework under which the debt and losses of DISCOMs would be taken over by GoUP in a graded manner. By the end of the implementation period (2019-20), it was envisaged that there would be improvement in the financial and operational efficiency of the State DISCOMs.

Audit reviewed the financial performance of DISCOMs pre and post UDAY and observed that financial health of DISCOMs did not improve after the implementation of the Scheme. The position of the major indicators of financial health, *i.e.* debts position and financial losses pre and post UDAY are discussed below:

Position of outstanding Debt

4.3 The pre-UDAY outstanding debt of DISCOMs was ₹ 59,205.19 crore[1] as on 30 September 2015. Out of this, 75 *per cent* debt amounting to ₹ 44,403.89 crore was taken over by GoUP up to June 2016. Hence, the effective debt of the DISCOMs became ₹ 14,801.30 crore. However, the DISCOMs' debt again reached to ₹ 52,456.15 crore at the time of closure of the Scheme on 31 March 2020. The financial position of DISCOMs subsequently further deteriorated during 2020-21 as the debt of DISCOMs increased to ₹ 74,119.46 crore as on 31 March 2021 and stood at ₹ 71,102.77 crore as on 31 March 2022. The year-wise debt position of DISCOMs is depicted in **Chart 4.1** below:

Chart 4.1: Pre and Post UDAY position of debt of DISCOMs

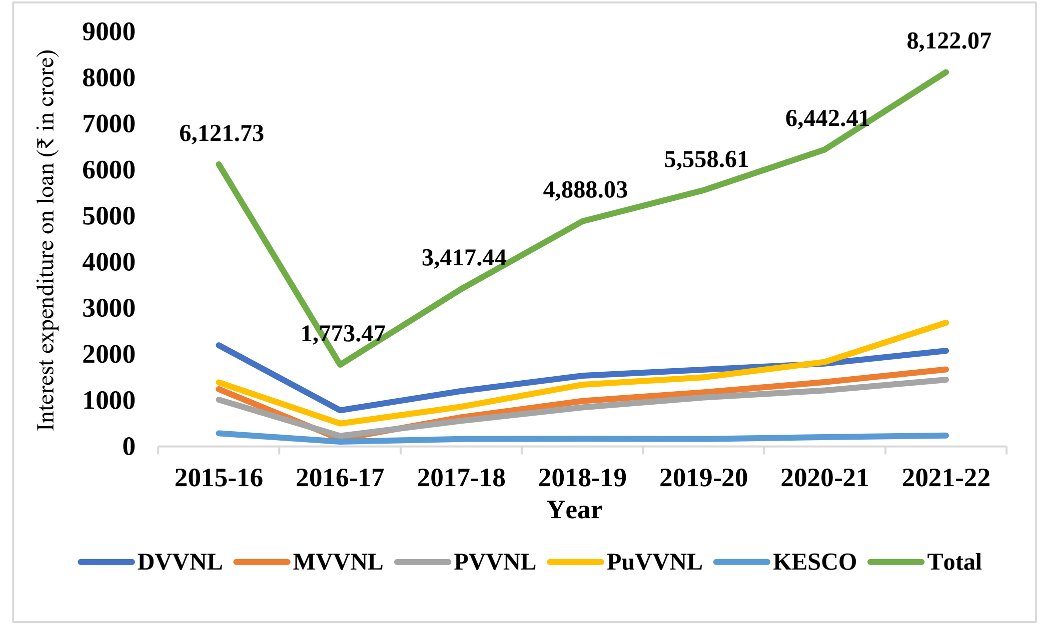


[1] Including bonds issued under Financial Restructuring Plan (FRP)-2012 prior to 30 September 2015 amounting to ₹ 5,270.13 crore.

It is evident from the above Chart that although the debt of DISCOMs decreased from ₹ 59,205.19 crore as on 30 September 2015 to ₹ 19,496.84 crore at the end of the year 2015-16 due to takeover of 75 *per cent* of the debt by GoUP, it again steeply rose by 169 *per cent* to reach at ₹ 52,456.15 crore by the end of the scheme in 2019-20 and by 265 *per cent* to reach at ₹ 71,102.77 crore at the end of 2021-22. Despite taking over of debt of ₹ 44,403.89 crore by GoUP, the debt again increased from ₹ 14,801.30 crore to ₹ 71,102.77 crore. Thus, in the absence of generation of sufficient internal resources due to failure in achievement of financial and operational efficiencies as envisaged under UDAY scheme, the DISCOMs could not reduce their debts.

Audit further observed that failure of the DISCOMs in reduction of debt burden contributed to increase in interest burden during the Scheme period. In March 2016, the interest burden of DISCOMs was ₹ 6,121.73 crore. Despite taking over of debt of DISCOMs of ₹ 44,403.89 crore by GoUP, the interest burden stood at ₹ 5,558.61 crore during 2019-20 which increased to ₹ 6,442.41 crore during 2020-21. The interest burden further rose to ₹ 8,122.07 crore during 2021-22. The year-wise interest expenditure of DISCOMs is depicted in **Chart 4.2** below:

Chart 4.2: Pre and Post UDAY position of interest expenditure of DISCOMs



It can be seen from the above Chart that sharp decrease in interest expenditure in 2016-17 was attributable to takeover of debts of DISCOMs by GoUP in March 2016 and June 2016. However, the interest expenditure has steadily increased from 2017-18 onwards mainly because of taking of loans for working capital requirements and issuance of bond for loss funding by UPPCL.

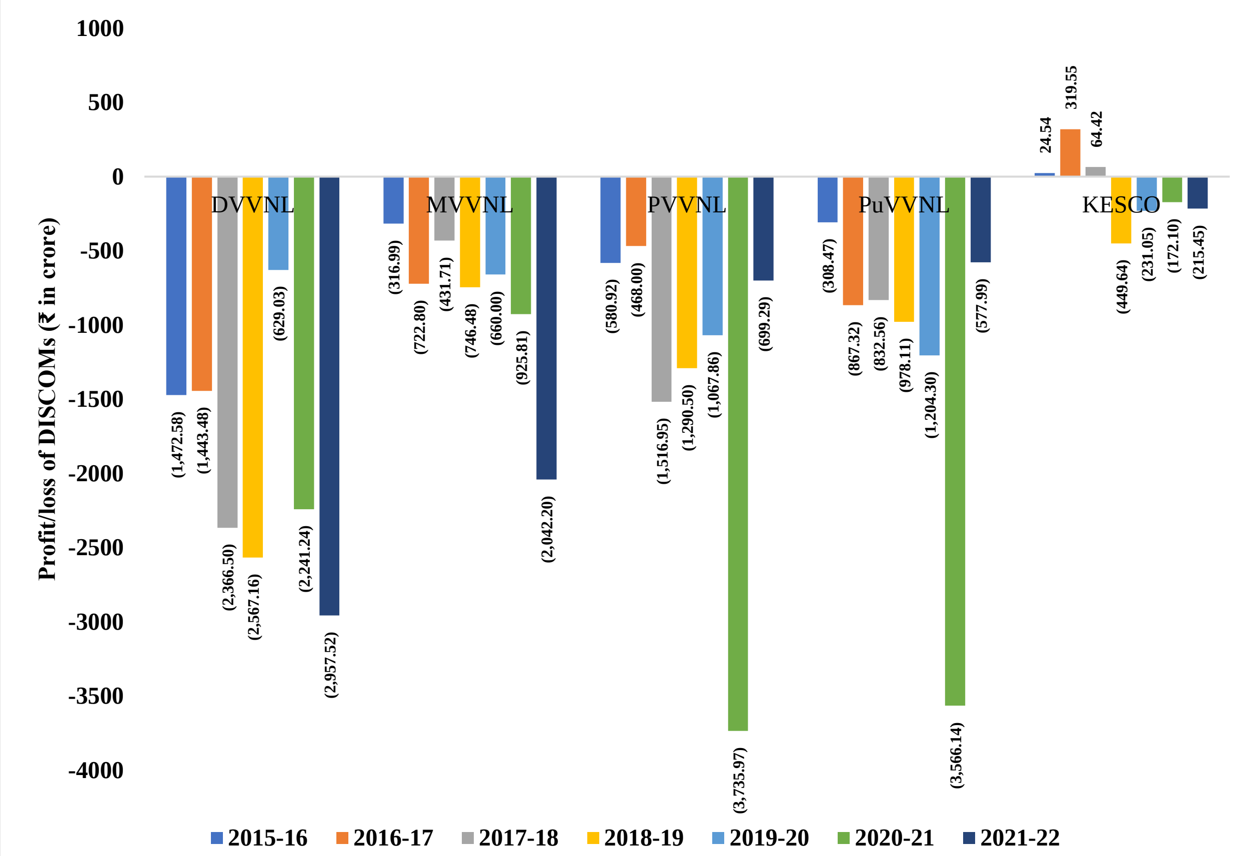
The Department stated in reply that financial burden of DISCOMs depend on its operational performance. The debts have been raised considerably since 2016, as DISCOMs have raised almost ₹ 20,000 crores by issuing bonds under UDAY policy, ₹ 32,840 crore under Atmanirbhar Bharat Scheme and ₹ 3,951.20 crore to meet its requirements.

The fact remains that despite takeover of 75 *per cent* of debt of DISCOMs by GoUP, the DISCOMs could not reduce their debts due to failure in achievement of financial and operational efficiencies as envisaged under UDAY scheme and they had to rely on external sources to meet their fund requirement.

Position of Losses

4.4 The financial position of DISCOMs also did not improve during the Scheme period as financial losses of DISCOMs significantly increased from ₹ 2,654.42 crore as on 31 March 2016 to ₹ 3,792.24 crore as on 31 March 2020 which increased to ₹ 10,641.26 crore as on 31 March 2021. The financial losses of DISCOMs stood at ₹ 6,492.45 crore as on 31 March 2022. The DISCOM wise losses are depicted in **Chart 4.3** below:

Chart 4.3: Pre and Post UDAY position of financial losses of DISCOMs

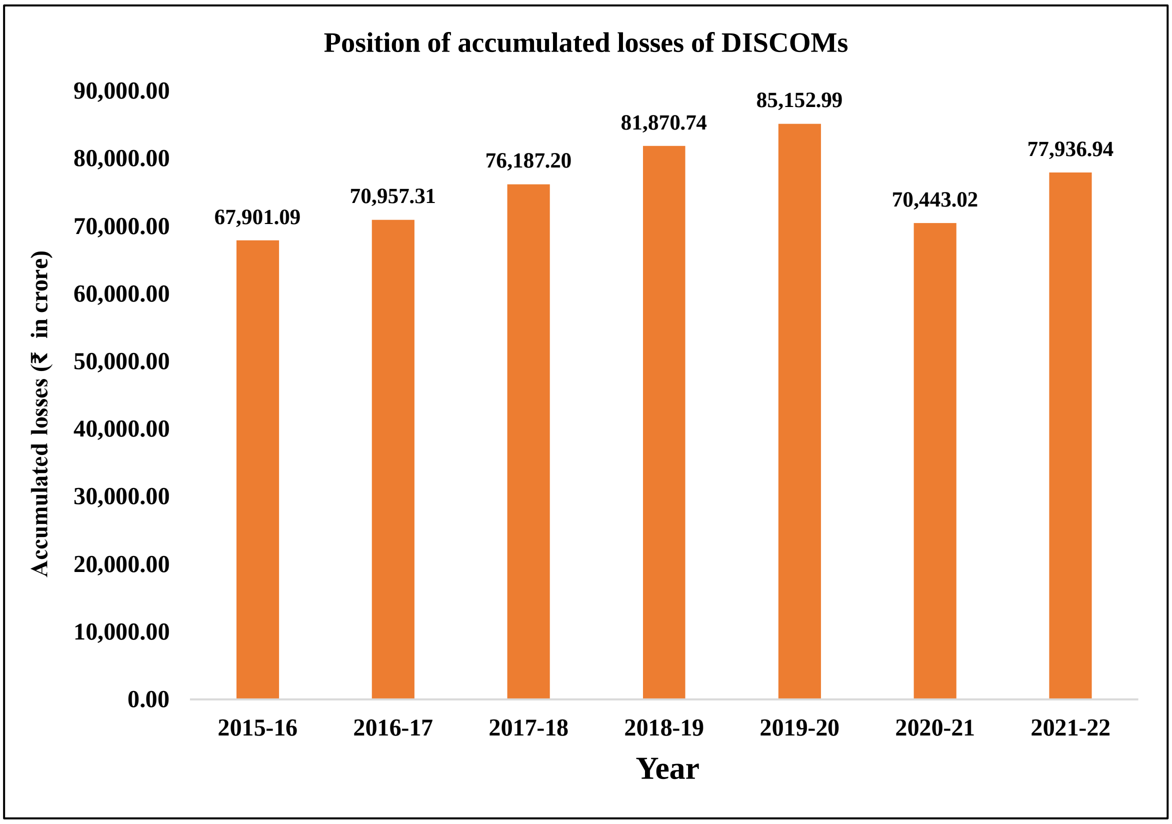


It is evident from the above that there was an increase in financial losses of the DISCOMs by ₹ 3,838.03 crore from March 2016 (pre-UDAY period) to March 2022 despite implementation of UDAY Scheme. The financial losses of DVVNL, PVVNL and PuVVNL increased significantly in 2020-21 compared to previous year mainly because of decrease in subsidy received from GoUP and increase in cost of power purchase. In the year 2021-22, the increase in financial losses of DVVNL and MVVNL compared to previous year was mainly attributable to higher provision for bad debts and decrease in losses of PVVNL and PuVVNL was on account of increase in receipt of subsidy from GoUP.

The reasons for increase in debt and losses of DISCOMs were mainly attributable to DISCOMs' failure in achieving operational targets set under UDAY Scheme (discussed in **Paragraphs 4.6 and 4.7),** adjustment of Government dues from UDAY grant against provisions of MoU, deferment of revenue subsidy over a period of 10 years by GoUP etc. (discussed in **Paragraphs 2.4.3, 2.5.1 and 2.5.2)**. Consequently, in order to meet fund deficit, DISCOMs had to avail working capital loan of ₹ 61,074.65 crore from Financial Institutions, which attracted interest burden of ₹ 18,751.99 crore during 2015-16 to 2022-23 (up to October 2022).

Further, due to the DISCOMs continuously remaining in red, their accumulated losses increased from ₹ 67,901.09 crore as on 31 March 2016 to ₹ 85,152.99 crore as on 31 March 2020. The accumulated losses of DISCOMs stood at ₹ 77,936.94 crore as on 31 March 2022. The year wise position of accumulated losses of DISCOM is depicted in **Chart 4.4** below:

Chart 4.4: Pre and Post UDAY position of accumulated losses of DISCOMs



Thus, the objective of financial turnaround could not be achieved by the DISCOMs even after implementation of the Scheme.

The Department stated in reply that all efforts were made to achieve the targets of UDAY scheme but due to some unavoidable factors targets could not be achieved. Due to reduction in distribution losses and increase in collection efficiency, AT&C losses have decreased to 30.02 *per cent* in 2019-20 from 39.86 *per cent* in 2015-16.

The reply is not acceptable as DISCOMs failed to reduce their losses and achieve the objective of financial turnaround envisaged under UDAY due to reasons discussed above.

Pre and post-UDAY operational performance of DISCOMs

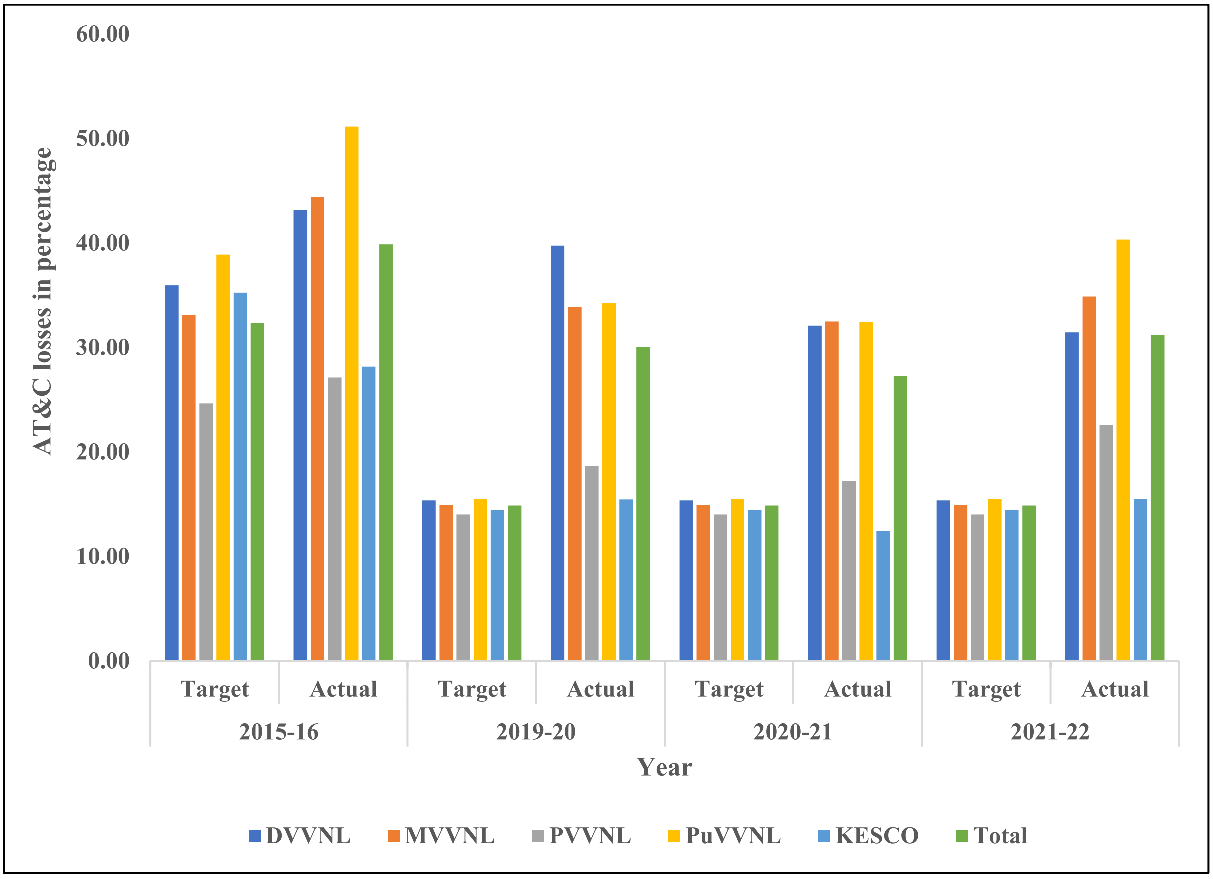
4.5 The intended objective of the operational activities in the Scheme was to improve operational efficiency of DISCOMs. The improvement in operational efficiency was to be measured through operational performance indicators, which were reduction in AT&C losses to 14.86 *per cent* and elimination of gap between ACS and ARR by 2019-20.

Audit reviewed the operational performance of DISCOMs pre and post UDAY and observed that operational health of DISCOMs did not improve after implementation of the Scheme. The position of the major indicators of operational health, *i.e.* AT&C loss and ACS-ARR gap pre and post UDAY are discussed below:

Position of AT&C Losses

4.6 AT&C losses of DISCOMs during pre-UDAY period (2015-16) stood at 39.86 *per cent*. However, during the scheme implementation period, none of the DISCOMs (except KESCO) could achieve the targets of AT&C loss reduction fixed under the MoU. In 2019-20, even KESCO failed to meet the loss reduction target. As a result, against the envisaged reduction in AT&C losses from pre-UDAY position of 39.86 *per cent* to 14.86 *per cent*, the AT&C losses of DISCOMs remained at high level of 30.02 *per cent* during 2019-20. Although, AT&C losses slightly decreased to 27.23 *per cent* in 2020-21 but again rose to 31.19 *per cent* in 2021-22. The DISCOM-wise position of pre-UDAY AT&C losses, target as per MoU and achievement there against are depicted in the **Chart 4.5** below:

Chart 4.5: Pre and Post UDAY position of AT&C losses of DISCOMs



The main reasons for not achieving targeted level of AT&C losses were lower billing and collection efficiency as discussed in **Paragraph 3.4.2** and not carrying out related activities for reduction in AT&C losses *viz.* failure in installation of meter on unmetered connections, excessive number of defective meters, higher distribution losses, inadequate efforts in recovery of arrears from consumers, not recovering the dues against temporary disconnection and permanent disconnection cases, not realising the assessed amount in theft cases and recovery of fixed rates instead of tariff rate from departmental consumers as discussed in **Paragraphs 3.4.3** and **3.4.4**.

The Department stated in reply that uncontrollable events such as increase in rural consumer base due to launching of Saubhagya scheme in 2017, reduction in revenue collection on account of Railways & other industries shifting to open access, increase in supply for agricultural consumers and abolishing of regulatory surcharge by UPERC, pulled back the DISCOMs from achieving AT&C loss targets. Despite these adverse reasons, DISCOMs managed to record a significant and unprecedented reduction of 10 *per cent* in AT&C losses in UDAY Scheme period.

The fact remains that AT&C loss reduction targets as envisaged in UDAY Scheme could not be achieved by DISCOMs. Moreover, the AT&C losses after showing a declining trend up to 2020-21 again rose from 27.23 *per cent* in 2020-21 to 31.19 *per cent* in 2021-22.

Position of ACS-ARR gap

4.7 ACS-ARR gap of DISCOMs during pre-UDAY (2015-16) was ₹ - 0.33 per unit, which increased to ₹ - 0.34 per unit at the end of UDAY period (2019-20) against the target of surplus of ₹ 0.06 per unit. The DISCOMs could not eliminate the ACS-ARR gap even in the year 2020-21 and 2021-22 as it rose to ₹ - 0.94 per unit and ₹ - 0.56 per unit respectively. Thus, none of the DISCOMs could achieve the target of eliminating ACS-ARR gap.

The reasons were mainly attributable to factors affecting the Average Cost of Supply *viz.* failure in reducing power purchase cost and expenditure incurred in excess of norms disallowed by UPERC and factors affecting Average Realisable Revenue as discussed in **Paragraphs 3.4.6** and **3.4.7**.

Thus, the objective of operational turnaround also could not be achieved by the DISCOMs.

The Department stated in reply that DISCOMs Revenue Assessment per unit of energy input increased from ₹ 4.09 per kWh in 2015-16 to ₹ 4.82 per kWh in 2019-20 and tariff subsidy support from State Government also increased from ₹ 0.70 per kWh in 2015-16 to ₹ 0.90 per kWh in 2019-20 despite uncontrollable events such as increase in rural consumer base due to launching of Saubhagya scheme in 2017, reduction in revenue collection on account of Railways & other industries shifting to open access, increase in supply for agricultural consumers, abolishing of regulatory surcharge by UPERC and various disallowances by the UPERC in Tariff. Further, UP DISCOMs have been successful in reducing variable power purchase cost but fixed charges have increased with commissioning of new power plants which were tied-up before signing of UDAY MoU.

The reply is not acceptable as the DISCOMS could not reduce average power purchase cost due to factors such as payment of late payment surcharge to generators, incurring expenditure in excess of norms fixed by UPERC, unapproved power purchase etc. Further, revenue could not be optimised due to reasons such as failure in 100 *per cent* metering of unmetered connections, higher number of defective meters, recovery of fixed rate instead of tariff rate from departmental consumers, delay in filing of tariff petitions, non-revision of tariffs and failure in recovery of revenue arrears which increased from ₹ 35,843.27 crore in 2015-16 to ₹ 87,195.18 crore in 2021-22.

Lucknow **(TANYA SINGH)**
The 9 June 2024 **Accountant General (Audit-II),**
Uttar Pradesh

Countersigned

New Delhi **(GIRISH CHANDRA MURMU)**
The 12 JUN 2024 **Comptroller and Auditor General of India**

APPENDICES

Appendix-1.1
(Referred to in paragraph 1.5)
List of audited Circles and Divisions

DISCOM	Name of Circle	Name of Division	Name of Circle	Name of Division
DVVNL	EUDC, Mathura	EUDD-I, Mathura	EUDC, Jhansi	EUDD-I, Jhansi
		EUDD-II, Vrindavan		EUDD-II, Jhansi
		EUDD-III, Mathura	EDC, Etah	EDD-I, Etah
	EDC, Kasganj	EDD-I, Kasganj		EDD-II, Etah
		EDD-II, Kasganj		EUDD, Etah
MVVNL	EUDC, VIII LESA	EUDD, Residency	EUDC-I, LESA	EUDD, Husainganj
		EUDD, Chowk		EUDD, Raj bhawan
		EUDD, Thakurganj		EUDD, Aminabad
	EDC, Barabanki	EDD-I, Barabanki	EDC, Bahraich	EDD, Bahraich
		EDD-II, Barabanki		EDD, Nanpara
		EDD, Fatehpur		EDD, Kaiser Ganj
		EDD, Ram Sanehi Ghat		
		EDD, Haidargarh		
PVVNL	EUDC-I, Noida	EUDD-I, Noida	EUDC-II, Noida	EUDD-II, Noida
		EUDD-V, Noida		EUDD-III, Noida
		EUDD-VII, Noida		EDD-IV, Noida
	EDC-II, Saharanpur	EDD-II, Saharanpur		EUDD, Greater Noida
		EDD, Nakur		EUDD-VIII, Noida
		EDD, Rampur Maniharan	EDC-I, Moradabad	EDD-I, Moradabad
				EDD-II, Moradabad
				EDD-III, Moradabad
PuVVNL	EDC, Ballia	EDD-I, Ballia	EDC, Mahrajganj	EDD, Mahrajganj
		EDD-II, Ballia		EDD, Nichlaul
		EDD-III, Bansdih Ballia		EDD, Anand Nagar
		EDD-IV, Bairiya Ballia		EDD, Nautanava
	EUDC, Gorakhpur	EUDD-I, Gorakhpur	EUDC-I, Varanasi	EUDD-I, Varanasi
		EUDD-II, Gorakhpur		EUDD-II, Varanasi
		EUDD-III, Gorakhpur		EUDD-IV, Varanasi
		EUDD-IV, Gorakhpur		EUDD-VII, Varanasi
KESCO	Circle- I	EUDD, Nawabganj	Circle-III	EUDD, Jajmau
		EUDD, Phoolbagh		EUDD, Harishganj
		EUDD, Zaribcahuki		EUDD, Naubasta
		EUDD, Electricity House		EUDD, Delhi Sujanpur
		EUDD, Aloomandi		EUDD, Hanspuram

Appendix-3.1
(Referred to in paragraph 3.4.1)
Statement showing approved methodology by Ministry of Power, Government of India for calculation of AT&C losses

A	Net Input Energy	Gross Energy Purchased - (Inter State Sales and Transmission Losses)
B	Energy Sold	Energy sold to all category of consumers excluding Inter State Sales
C	Revenue from Sale of Energy	Revenue from Sale of Energy (including subsidy booked) but excluding Revenue from Inter-State Sales
D	Adjusted Revenue from Sale of Energy (Subsidy Received basis)	Revenue from sale of energy (same as B above) minus subsidy booked plus subsidy received against Subsidy booked during the year
E	Opening Debtors for Sale of Energy	Opening debtors (without provisions for doubtful debtors). Unbilled revenue shall not be considered as debtors
F	Adjusted Closing Debtors for sale of Energy	Closing debtors (without provisions for doubtful debtors). Unbilled revenue shall not be considered as debtors + Any amount written off during the year.
G	Collection Efficiency (in *per cent*)	(D+E-F)/C x 100
H	Units Unrealised	Net Input Energy – (Energy Sold x Collection Efficiency)
I	AT&C Losses (in *per cent*)	Units Unrealised/ Net Input Energy) x 100

Source: Guidelines for computation of AT&C losses issued by Ministry of Power, Government of India

Appendix-3.2
(Referred to in paragraph 3.4.1)
Statement showing energy units lost due to higher AT&C losses against target fixed in MoU

DISCOM	Year	Energy input (MUs) as per AFS	Energy sold (MUs) as per AFS	Actual AT&C Losses (*per cent*)	Target of AT&C losses as per MoU (*per cent*)	Excess AT&C losses (*per cent*)	Energy units lost due to excess AT&C losses (MUs)	Average cost of procurement of power (₹ per unit)	Value of lost energy units (₹ in crore)
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)=(e)-(f)**	**(h)=(c)*(g)/100**	**(i)**	**(j)=(h)*(i)/10**
DVVNL	2015-16	20431.73	15435.73	43.13	35.94	7.19	1469.04	4.41	647.85
	2016-17	22244.68	16811.27	40.62	30.30	10.32	2295.65	4.44	1019.27
	2017-18	25009.71	18735.57	38.89	24.83	14.06	3516.37	4.47	1571.82
	2018-19	24082.45	19035.31	37.12	20.44	16.68	4016.95	5.26	2112.92
	2019-20	24710.98	19456.14	39.74	15.35	24.39	6027.01	4.56	2748.32
	2020- 21	25888.03	19183.00	32.09	15.35	16.74	4333.66	4.63	2006.48
	2021- 22	25725.44	19129.25	31.44	15.35	16.09	4139.22	4.24	1755.03
	Sub-total								**11861.69**
MVVNL	2015-16	16352.51	12722.47	44.41	33.13	11.28	1844.56	4.41	813.45
	2016-17	19128.97	14759.01	47.10	27.80	19.30	3691.89	4.44	1639.20
	2017-18	21857.02	17007.33	45.32	23.20	22.12	4834.77	4.37	2112.79
	2018-19	21287.18	16697.54	40.46	19.45	21.01	4472.44	5.69	2544.82
	2019-20	22851.68	18426.23	33.89	14.89	19.00	4341.82	5.43	2357.61
	2020- 21	23520.97	18765.22	32.48	14.89	17.59	4137.34	5.75	2378.97
	2021- 22	24352.98	20125.98	34.87	14.89	19.98	4865.73	5.66	2754.00
	Sub-total								**14600.84**
PVVNL	2015-16	26926.17	21905.13	27.13	24.63	2.50	673.15	4.42	297.53
	2016-17	31110.59	25334.79	29.73	22.99	6.74	2096.85	4.44	931.00
	2017-18	34438.67	28437.30	25.97	20.63	5.34	1839.02	4.41	811.01
	2018-19	33336.73	28393.36	22.27	17.53	4.74	1580.16	5.2	821.68
	2019-20	34432.42	29065.91	18.64	14.01	4.63	1594.22	5.39	859.28
	2020- 21	33463.71	27491.63	17.23	14.01	3.22	1077.53	6.14	661.60
	2021- 22	34427.51	28238.69	22.58	14.01	8.57	2950.44	5.84	1723.06
	Sub-total								**6105.16**
PuVVNL	2015-16	20637.79	15887.68	51.14	38.87	12.27	2532.26	4.41	1116.73
	2016-17	23676.13	18286.23	53.19	34.19	19.00	4498.46	4.44	1997.32
	2017-18	27016.33	20758.60	47.89	26.92	20.97	5665.32	3.87	2192.48
	2018-19	26153.55	20795.20	39.64	20.65	18.99	4966.56	4.97	2468.38
	2019-20	26651.59	21237.26	34.24	15.49	18.75	4997.17	5.15	2573.54
	2020- 21	27603.46	21902.65	32.44	15.49	16.95	4678.79	5.11	2390.86
	2021- 22	28621.34	22854.31	40.33	15.49	24.84	7109.54	4.21	2993.12
	Sub-total								**15732.43**
KESCO	2015-16	3594.37	2935.25	28.16	35.25	-7.09	-254.84	4.42	0.00
	2016-17	3688.94	3089.16	25.10	29.44	-4.34	-160.10	4.44	0.00
	2017-18	3677.92	3199.74	21.26	24.11	-2.85	-104.82	5.57	0.00
	2018-19	3468.97	3173.84	16.49	19.37	-2.88	-99.91	7.12	0.00
	2019-20	3578.25	3300.50	15.46	14.45	1.01	36.14	6.49	23.46
	2020- 21	3382.74	3029.25	12.45	14.45	-2.00	-67.65	7.78	0.00
	2021- 22	3757.86	3396.64	15.51	14.45	1.06	39.83	6.76	26.93
	Sub-total								**50.39**
Grand Total									**48350.51**

Source: Annual Financial Statements (AFS) of DISCOMs

Appendix-3.3
(Referred to in paragraph 3.4.3 (b))
Statement showing position of Defective Meters in DISCOMs

Year	Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO
2015-16	Total no. of Metered Consumers	2416201	2694893	2551964	1900052	542787
	No. of Defective Meters	176449	252068	166639	207527	44361
	Percentage of Defective Meters	7.30	9.35	6.53	10.92	8.17
2016-17	Total no. of Metered Consumers	2571161	3020811	2744555	1996640	562600
	No. of Defective Meters	530306	396858	129349	337051	33354
	Percentage of Defective Meters	20.63	13.14	4.71	16.88	5.93
2017-18	Total no. of Metered Consumers	3132017	3758430	3924500	3151313	580317
	No. of Defective Meters	967781	932960	322968	807202	19762
	Percentage of Defective Meters	30.90	24.82	8.23	25.61	3.41
2018-19	Total no. of Metered Consumers	4292234	5324819	5178495	5498259	607464
	No. of Defective Meters	1042322	1128953	667053	1183457	8074
	Percentage of Defective Meters	24.28	21.20	12.88	21.52	1.33
2019-20	Total no. of Metered Consumers	5243022	6624478	6030508	6278165	603348
	No. of Defective Meters	824384	902373	576359	1292181	8369
	Percentage of Defective Meters	15.72	13.62	9.56	20.58	1.39
2020-21	Total no. of Metered Consumers	5772591	7406344	6180794	7518663	652173
	No. of Defective Meters	584834	344865	294082	945146	5236
	Percentage of Defective Meters	10.13	4.66	4.76	12.57	0.80
2021-22	Total no. of Metered Consumers	5503801	8383108	6466404	8444696	667378
	No. of Defective Meters	386184	330332	381785	1048050	5995
	Percentage of Defective Meters	7.02	3.94	5.90	12.41	0.90
2022-23 (Upto Oct.2022)	Total no. of Metered Consumers	5709464	8706660	6740374	9265659	687849
	No. of Defective Meters	288811	298788	331834	1009696	1367
	Percentage of Defective Meters	5.06	3.43	4.92	10.90	0.20

Source: Information furnished by UPPCL

Appendix-3.4
(Referred to in paragraph 3.4.9)
Statement showing delay in finalisation of the Annual Accounts by DISCOMs

DISCOMs	Particulars	Years						
		2015-16	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**
DVVNL	Annual Account finalised on	22-12-2017	23-08-2018	25-09-2018	26-09-2019	27-01-2021	20-12-2021	20-08-2022
	Required to be finalised	30-09-2016	30-09-2017	30-09-2018	30-09-2019	30-09-2020	30-09-2021	30-09-2022
	Delay in finalisation (in month)	**15**	11	0	0	4	3	0
MVVNL	Annual Account finalised on	29-12-2017	07-09-2018	25-09-2018	25-09-2019	21-01-2021	15-02-2022	23-08-2022
	Required to be finalised	30-09-2016	30-09-2017	30-09-2018	30-09-2019	30-09-2020	30-09-2021	30-09-2022
	Delay in finalisation (in month)	**15**	11	0	0	4	5	0
PVVNL	Annual Account finalised on	30-12-2017	18-08-2018	28-12-2018	26-09-2019	19-01-2021	30-11-2021	24-08-2022
	Required to be finalised	30-09-2016	30-09-2017	30-09-2018	30-09-2019	30-09-2020	30-09-2021	30-09-2022
	Delay in finalisation (in month)	**15**	11	3	0	4	**2**	0
PuVVNL	Annual Account finalised on	27-12-2017	06-09-2018	25-09-2018	26-09-2019	18-01-2021	11-12-2021	20-08-2022
	Required to be finalised	30-09-2016	30-09-2017	30-09-2018	30-09-2019	30-09-2020	30-09-2021	30-09-2022
	Delay in finalisation (in month)	**15**	11	0	0	4	**2**	0
KESCO	Annual Account finalised on	30-12-2017	18-08-2018	25-09-2018	25-09-2019	06-01-2021	14-12-2021	26-08-2022
	Required to be finalised	30-09-2016	30-09-2017	30-09-2018	30-09-2019	30-09-2020	30-09-2021	30-09-2022
	Delay in finalisation (in month)	**15**	11	0	0	3	**2**	0

Source: Annual Financial Statements of DISCOMs and provisions of Companies Act, 2013

https://cag.gov.in/ag2/uttar-pradesh