

**CHAPTER–II**  
**Performance Audit relating to**  
**Government companies**

## CHAPTER II

### 2. Performance Audit relating to Government Companies

#### 2.1 Performance Audit on Collection and Disposal of Forest Produce by Uttar Pradesh Forest Corporation

##### Executive summary

##### Introduction

Uttar Pradesh Forest Corporation (Corporation) was established in November 1974 under the Uttar Pradesh Forest Corporation Act, 1974 (Act) as local authority for preservation, development of forest and scientific exploitation of forest produce within the State. The main activities of the Corporation comprise production/collection and disposal of forest produce (timber, firewood, *tendu* leaves, bamboo, medicinal herbs-*jari buti* and baib grass).

(Paragraph 2.1.1)

Audit findings pertaining to various sections of the Corporation are discussed below:-

##### Round Timber

- The logging work of 378 to 1,177 lots were not started within the logging years. Consequently, it resulted in payment of royalty at higher rates on 3,604 un-worked lots and 2,124 lots returned to Department during 2009-10 to 2013-14 for allotment in subsequent years.

(Paragraph 2.1.8)

- The Corporation adopted Quarter Girth formula for calculating volume of logs produced wherein the volume was worked out at 78.60 *per cent* of the actual volume. It further failed to ensure higher realisations due to non-fixation of separate floor prices for green and dry timber.

(Paragraphs 2.1.9 and 2.1.10)

- In six Divisions, the actual production fell short against the required production by 15,920 cum which resulted in loss of revenue amounting to ₹ 15.81 crore.

(Paragraph 2.1.11)

- The Corporation failed to realise best prices due to revision of floor prices at the rates below the increase in the average sale price over previous logging year and lost the opportunity to earn additional revenue due to delay in revision of the floor prices.

(Paragraphs 2.1.15 and 2.1.16)

##### *Tendu* Leaves

- Payments were made to *tendu* leave collectors after one to seven months from their collection. Payment of collection charges of ₹ 91.34 lakh for 13,467

standard bags pertaining to Karwi and Renukoot Divisions for the years 2009-10 to 2013-14 were not made so far.

**(Paragraph 2.1.20)**

- The Corporation did not fix any norm for rain affected *tendu* leaves. Failure in protecting *tendu* leaves from rain and deterioration in the quality resulted in loss of ₹ 2.15 crore against 24,907 standard bags affected by rain during the years 2011-12 and 2013-14.

**(Paragraph 2.1.22)**

- Out of 20 units where *tendu* culture was done in Renukoot Division for season 2012 and 2013, the production and weight per standard bag of *tendu* leaves declined in five units each as compared to the corresponding averages for the last three years. The average weight per standard bag of the units of the Karwi Division where *tendu* culture was done remained lower than that of their respective control units in 11 out of 27 units for the seasons 2011 to 2013.

**(Paragraph 2.1.24)**

- The Corporation failed to dispose-off complete stock of *tendu* leaves during the respective years of production and suffered a loss of ₹ 4.49 crore.

**(Paragraph 2.1.26)**

- The Corporation made short payment of royalty to the State Government of ₹ 201.52 crore on *tendu* leaves during the period 2010-11 to 2013-14.

**(Paragraph 2.1.27)**

**Internal control and monitoring**

- Internal control system of the Corporation was not effective as it failed to ensure production of logs up to the prescribed minimum girth, detect the difference in measurement of boot and bottom girth of first log, ensure maintenance of the prescribed records of production and handover of the sites to the Department after completion of felling within the stipulated time.

**(Paragraph 2.1.28)**

**Introduction**

**2.1.1** Uttar Pradesh Forest Corporation (Corporation) was established in November 1974 under the Uttar Pradesh Forest Corporation Act, 1974 (Act) as local authority for preservation, development of forest and scientific exploitation of forest produce within the State. The main activities of the Corporation comprise production/collection and disposal of forest produce (timber, firewood, *tendu* leaves, bamboo, medicinal herbs-*jari buti* and baib grass).

For production/ collection of the forest produce, the Corporation is required to pay royalty to the Government of Uttar Pradesh (GoUP) at the rates prescribed by it. The rates of royalty are determined annually by the Department of Forest (Department), GoUP in accordance with the formula prescribed by the GoUP.

The details of turnover of the Corporation, royalty paid to the GoUP and profit during the five years from 2009-10 to 2013-14 are shown in the table 2.1.1 below:

**Table-2.1.1**  
**(Year-wise turnover, royalty paid and profit)**

Sl. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	Total	Percentage of total turnover
	<b>Turnover of forest produce</b>							
1	Round timber	244.65	284.62	295.29	311.22	376.26	1512.04	87.89
2	Firewood	4.71	6.09	2.99	2.83	2.91	19.53	1.13
3	Bamboo	0.57	0.66	0.51	0.61	0.84	3.19	0.18
4	Tendu leaves	33.05	38.33	41.01	46.29	26.18	184.86	10.75
5	Jari buti	0.16	0.20	0.10	0.14	0.10	0.70	0.04
6	Baib grass and others	0.02	0.00	0.01	0.05	0.02	0.10	0.01
7	<b>Total turnover (1 to 6)</b>	<b>283.16</b>	<b>329.90</b>	<b>339.91</b>	<b>361.14</b>	<b>406.31</b>	<b>1720.42</b>	100.00
8	Increase/ Decrease (-) in stock	17.87	13.51	-5.26	43.33	31.00	100.45	-
9	<b>Total (7+8)</b>	<b>301.03</b>	<b>343.41</b>	<b>334.65</b>	<b>404.47</b>	<b>437.31</b>	<b>1820.87</b>	-
	<b>Expenses on operation</b>							
10	Royalty paid to Government	120.14	119.01	100.66	136.78	174.57	651.16	37.85
11	Operating, Production and other expenses	113.79	146.45	165.29	188.79	215.27	829.59	48.22
12	<b>Total (10+11)</b>	<b>233.93</b>	<b>265.46</b>	<b>265.95</b>	<b>325.57</b>	<b>389.84</b>	<b>1480.75</b>	-
13	<b>Operating profit (9-12)</b>	67.10	77.95	68.70	78.90	47.47	340.12	19.77
14	<b>Turnover of units selected</b>	126.68	148.92	155.96	159.19	199.24	789.99	<b>45.92</b>

Source: Annual accounts of the Corporation

The turnover (₹ 1720.42 crore) comprised 87.89 per cent round timber (₹ 1512.04 crore), 10.75 per cent tendu leaves (₹ 184.86 crore), 1.13 per cent firewood (₹ 19.53 crore) and 0.23 per cent other produce viz. bamboo, jari buti and baib grass (₹ 3.99 crore) during the period of five years from 2009-10 to 2013-14.

The Performance Audit was taken up to evaluate the activities related to its main forest produce viz. round timber, tendu leaves and firewood, comprising 99.77 per cent of the total turnover of the Corporation. The turnover of the selected units covered 46 per cent of the total turnover of the Corporation during the above period.

### Organisational set up

**2.1.2** The Management of the Corporation is vested in the Board of Directors (BOD) headed by a Chairman and five members appointed by the GoUP. The Managing Director is the chief executive of the Corporation who is assisted by an Additional Managing Director, seven General Managers, seven Regional

Managers (six in regions and one at Headquarters), a Chief Accounts Officer and Financial Advisor and an Internal Audit Officer.

The execution of work is done by 17 Divisional Logging Managers (DLMs) and 13 Divisional Sales Managers (DSMs) under six regions (Jhansi, Allahabad, Meerut, Lucknow-Vikas, Gorakhpur, Lakhimpur-Kheri) across the State. DLMs are responsible for felling the trees and production of timber/ collection of other forest produce. DSMs are responsible for storage and sale of the forest produce.

### **Audit Objectives**

**2.1.3** The Performance Audit was conducted to ascertain whether:

- production/collection, royalty and disposal of the round timber and firewood were done efficiently, economically and effectively in accordance with the laid down procedures by the BOD and orders of GoUP;
- production/ collection, royalty and disposal of the *tendu* leaves were done efficiently, economically and effectively in accordance with the laid down procedures by the BOD and orders of GoUP; and
- system of monitoring and internal control for collection and disposal of forest produce was efficient and effective.

### **Audit Criteria**

**2.1.4** The audit criteria considered for assessing the achievements of audit objectives for evaluation of performance of the Corporation were:

- Uttar Pradesh Forest Corporation manual of standing orders;
- directives and orders of the GoUP/ Corporation issued from time to time;
- action plan and budget prepared by the management; and
- internal control system of the Corporation.

### **Scope and Methodology of audit**

**2.1.5** A Review on the working of the Uttar Pradesh Forest Corporation was featured in the Report of the Comptroller and Auditor General of India (Commercial), GoUP for the year ended 31 March 2001. The review was discussed by the Committee on Public Undertakings (COPU) of the State Legislature during December 2004 to September 2010. Recommendations of the COPU are awaited. The present Performance Audit was conducted during the period 19 February 2014 to 3 September 2014 to assess the performance of the Corporation with respect to collection and disposal of its major forest produce (round timber, firewood and *tendu* leaves) during the period of five years from 2009-10 to 2013-14.

Six DLMs (Lucknow, Pilibhit, Najibabad-Bijnore, Gonda, Karwi and Renukoot), one from each of the six regions (out of 17 DLMs) and corresponding five DSMs viz. Lucknow, Pilibhit, Saharanpur, Gonda and Duddhi (out of 13 DSMs) along with the Headquarters were selected on stratified random basis for audit. Units selected, covered 46 *per cent* of the total turnover of the forest produce.

The methodology adopted for attaining the audit objectives with reference to audit criteria consisted explaining the audit objectives to the management in

the Entry Conference held on 13 March 2014, study of Corporation's manual of standing orders, directives of the GoUP and circulars/ office orders of the Corporation, evaluating the system of supervision and monitoring and issue of queries and discussion with the management. An Exit Conference was held on 23 September 2014 with the Management. The replies of the Management to our audit findings were received in October 2014 and have been duly considered while finalising the Performance Audit. Reply of the Government was awaited (January 2015).

### Audit Findings

**2.1.6** Audit findings on collection/production and disposal of round timber and *tendu* leaves are discussed in the succeeding paragraphs:

### Collection and Disposal of Round Timber and Firewood

**2.1.7** The Department of Forest, GoUP (Department) marks the trees for felling in accordance with its working plan and present requirement arising due to developmental activities such as widening of national/ state highways and laying of electricity transmission lines, optical fibre cables etc. It sends the list containing the number of trees to be felled (sale list) along with the details of these trees (marking list) to the Corporation.

The work of the Corporation starts after the receipt of sale list and marking list. It verifies the details of sale and marking list at the site and thereafter takes over the possession of the lots. The lots are required to be felled within the logging year (October to September). The Logging Divisions fell the trees, prepare the logs (round timber) of the prescribed size and transport it to the Sales Divisions for its stacking and sale. The round timber is sold through auction.

Turnover of round timber constituted 87.89 *per cent* (₹ 1512.04 crore) of the total turnover of ₹ 1720.42 crore of the Corporation during the years 2009-10 to 2013-14 as shown in table 2.1.1.

Deficiencies noticed in respect of collection and disposal of round timber and firewood are discussed in succeeding paragraphs:

### *Delay in completion of felling*

**2.1.8** The GoUP directives (October 2002) provided that the logging of trees was to be done within logging year (October to September). The details of allotment, completion, under progress and un-worked lots during the period 2009-10 to 2013-14 are shown in table 2.1.2.

**Table-2.1.2**

Year	Number of lots					Percentage of returned lots and un-worked lots to allotted lots
	Allotted	Completed	Under progress	Returned to Forest Department	Un-worked	
2009-10	5706	4159	423	379	745	19.70
2010-11	5453	4061	452	463	477	17.24
2011-12	5024	4084	304	258	378	12.66
2012-13	6778	4529	584	488	1177	24.56
2013-14	6849	4875	611	536	827	19.90
<b>Total</b>	<b>29810</b>	<b>21708</b>	<b>2374</b>	<b>2124</b>	<b>3604</b>	<b>19.22</b>

Source: Monthly Progress Reports

**Corporation failed to start the logging work of 378 to 1,177 lots within the logging years**

It may be seen from table that the Corporation failed to start the logging work of 378 to 1,177 lots within the logging years. Consequently, 3,604 lots remained un-worked at the end of respective logging years and 2,124 lots were returned to Department for allotment in subsequent years. We observed that the rate of royalty increased invariably in all the five years. As a result, returned and un-worked lots of trees caused payment of royalty at correspondingly higher rates.

Further analysis of the un-worked lots within the Logging Divisions of the Corporation during the five years 2009-10 to 2013-14 revealed that the percentage of un-worked lots was high in DLM Lalitpur (38.77 *per cent*) against nil in the DLM Obra.

The Management stated (October 2014) that felling work remains affected due to natural constraints of rain and moisture etc. and anthropogenic constraints relating to houses, shops, traffic and non-receipt of warranted co-operation from District administration etc. Reply is not acceptable as the constraints cited by the Management were existing in all the Divisions.

*We recommend that the Corporation should endeavour to minimise the un-worked lots at the end of the logging year.*

***Incorrect calculation of volume of round timber***

**2.1.9** The volume of timber in the standing trees is calculated in accordance with the volume factors prescribed (June 1978) by the Forest Department for different ranges of diameter at breast height (DBH), which is at 1.37 meter above the ground, for each species of trees. This is referred to as solid volume.

As per orders issued (January 1998) by the Corporation, solid volume of the standing trees is further multiplied by 0.786 on the ground that the shape of the tree is not perfectly cylindrical but gets tapered as it goes upwards. The volume thus calculated is called Quarter Girth (QG) volume.

We noticed that the Corporation considers the mid girth of the log<sup>1</sup> for calculating the volume of the log by applying QG formula<sup>2</sup> wherein the volume is worked out at 78.60 *per cent* of a perfectly cylindrical shape due to considering four in place of  $\pi$  used for normal mathematical calculation.

**Corporation adopted Quarter Girth formula for calculating volume of logs produced wherein the volume was worked out at 78.60 *per cent* of the actual volume**

Adoption of QG formula for measurement of the logs is incorrect as shortage of timber caused by declining tapering on upper side of the girth is neutralised by excess timber due to inclining tapering on the lower side of the girth.

The Management agreed in the exit conference (September 2014) to look into the practicality of new and accurate formula after conducting field study. It, however, stated (October 2014) that the objective of the applying QG formula, is to compensate the loss of timber resulting from conversion of round timber to sawn timber. Reply is not acceptable as the Corporation sells the timber in the form of round timber and not as sawn timber.

*We recommend that the Corporation should review the formula for measuring the logs for production.*

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<sup>1</sup> Pieces of round timber obtained from cutting of trees felled

<sup>2</sup>  $(G/4)^2 \times l$ , where 'G' stands for Girth and 'l' stands for length of the log



**Non-grading of timber into green and dry**

**2.1.10** Royalty on timber is based on grading of trees into green and dry. Royalty of a dry tree is payable equal to three fourth of amount payable on green tree. Despite above difference in the rates of royalty payable to Department, the Corporation neither categorised the timber obtained from green and dry trees nor fixed their floor price separately. It however categorised the timber into green and dry in case of *Aam* only and fixed separate floor prices since January 2013 where the floor price for green timber was higher by 17.81 *per cent* than that of dry timber.

The Corporation could not ensure higher realisation in respect of timber obtained from green trees due to non-grading of the timber between green and dry and non-fixation of separate floor prices

We noticed that in four DLMs (Lucknow, Pilibhit, Gonda and Najibabd-Bijnore), 21,861 cum of round timber of various species viz. *Sagaun*, *Sheesham*, *Neem*, *Jaamun* and *Eucalyptus* valuing ₹ 18.68 crore (at average floor price) were obtained from 291 lots of green trees felled for the widening/construction of national/state highways. Due to non-fixation of floor prices separately for green and dry timber, the Corporation could not ensure higher realisation in respect of timber obtained from green trees.

The Management accepted (October 2014) the audit observation for timber from green and dry trees in respect of species of soft wood (*Semal*, *Sirus*, *Aru* etc.) but for other species it stated that since the dry trees already have less moisture the difference in quality becomes insignificant and hence prices for green and dry timber are not fixed separately.

Management's reply for other than softwood is not acceptable as Corporation's directions (March 2010) for separate stacking of green and dry timber and fixing of separate floor prices for *Aam* tree (not being softwood) do not support their contention.

**Short production of round timber**

**2.1.11** The Corporation had prescribed (January 1998) that Quarter Girth (QG) volume shall be calculated for estimating the quantity of production of round timber from the standing trees.

In 644 out of 1,669 lots of selected DLMs test checked, actual production was less than the corresponding QG production by 15,920 cum which resulted in loss of revenue of ₹ 15.81 crore

Test check of a sample of 1,669 lots in selected six out of 17 DLMs revealed that in 644 lots, actual production (75,403 cum) was less than required production (91,323 cum) by 15,920 cum which resulted in loss of revenue of ₹ 15.81 crore, worked out at an average sale price of ₹ 9,933 per cum.

Main reasons noticed for short production of round timber are as under:

(i) The Corporation prescribed (October 1990, June 2010) that logs were required to be made up to the minimum mid girth of 30 cm (15 cm in case of *Eucalyptus* and *Sagaun*). We test checked 445 cases in five DLMs viz. Lucknow, Renukoot, Pilibhit, Gonda and Najibabad-Bijnore and found that in 309 cases (69.44 *per cent*), logs were made up to the mid girth of 35 cm to 92 cm (20 cm to 72 cm in case of *Eucalyptus* and *Sagaun*). Consequently, the potential round timber was converted into firewood and ultimately Corporation failed to fetch higher revenue.

The Management stated (October 2014) that after production of log of mid girth of 35-40 cm production of further log was not possible as the mid girth of the next log would be less than 31 cm.



The reply is not acceptable as in 197 out of 309 cases pointed out in audit, logs were produced up to the mid girth of 41 to 92 cm (26 cm to 72 cm in respect of Eucalyptus and *Sagaun*) against the requirement for production up to 30cm/15 cm.

(ii) The girth of boot<sup>3</sup> and the bottom girth of the first log should be same. We test checked 571 cases of three DLMs (Lucknow, Karwi and Pilibhit) and noticed that in 84 cases, the bottom girth of first log was less than the girth of boot by 5 to 293 cm. Non-matching of girth of boot with bottom girth of first log, led to chances of misappropriation and short production of round timber.

The Management stated (October 2014) that the difference of five to ten cm in the girth of boot and first log was normal due to necessity during felling of the tree. Reply is not acceptable as the difference was found more than normal in 76 cases out of 84 cases pointed out in audit.

*We recommend that the Corporation should endeavour to ensure production of round timber not less than QG volume except where reasonable grounds for contrary are recorded.*

#### ***Non-achievement of norms in production of firewood***

**2.1.12** Firewood is produced from felling of standing trees as by-product. The Corporation prescribed (November 2009) the norms for production of firewood (*Annexure-2.1.1*).

**Short production of firewood by 90,617 cum against the prescribed norms in 12 Divisions resulted in loss of ₹ 4.03 crore**

We observed that against the required production of 1,37,450 cum of firewood as per the norms, actual production was 46,833 cum which resulted in short production of 90,617 cum valuing ₹ 4.03 crore<sup>4</sup> in 12 Divisions during the period 2009-10 to 2013-14 (*Annexure-2.1.2*).

The Management stated (October 2014) that the decline in production of firewood was due to allotment of dry and diseased trees for felling and making logs of mid girth up to 15 cm in *Sagaun* and Eucalyptus besides cutting of branches of the dry and uprooted trees allotted under social forestry.

Reply is not acceptable as the short production of firewood was noticed in social forests as well as reserve forests. The social forests also included the lots of green trees felled for construction of highways. Further, in 76 per cent cases (100 out of 132 cases test checked) of *Sagaun* and Eucalyptus, the logs were not produced beyond 20 to 72 cm mid girth as pointed out in paragraph 2.1.11.

#### ***Non-maintenance of records of production***

**Lot ledgers were either not maintained at all or were not maintained properly**

**2.1.13** We observed that the lot ledgers required to be maintained vide Corporation order dated 16 March 1998 were not maintained in Renukoot and Najibabad (Bijnore)<sup>5</sup> Logging Divisions. Further, in DLMs Lucknow and Pilibhit, the lot ledgers were maintained but details like date of signing boundary register in 428 out of 591 lots, actual royalty due, payment of royalty and date of completion of felling were not recorded. In four Forest Divisions<sup>6</sup> under Najibabad (Bijnore) these details were not recorded in the lot

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<sup>3</sup> part attached to root from where the tree is felled

<sup>4</sup> At average rate of ₹ 445 per cum

<sup>5</sup> except in respect of Amroha Forest Division for the year 2013-14

<sup>6</sup> Bijnore, Moradabad, Sambhal and Rampur.

ledgers for the year 2013-14. As a result, date of start of work could not be ascertained in audit.

The Management stated (October 2014) that incomplete details have since been completed and instructions has been issued for timely recording of details.

***Delay in handing over of sites after completion of felling***

**2.1.14** The GoUP directives (October 2002) provided that after completion of the felling, sites were to be handed back by the Corporation to the Department within seven days.

We observed that three Divisions (Lucknow, Pilibhit and Najibabad- Bijnore) handed over sites of 91 lots (19 *per cent*) out of 472 lots to the Department with a delay of 1 to 238 days after their completion during the years 2010-11 to 2013-14. Such delay remained unnoticed by the Corporation due to deficient monitoring system.

The Management stated (October 2014) that in some cases delay occurs due to delay in receipt of information from depots.

***Determination of floor price at lower side***

**2.1.15** Floor price<sup>7</sup> of round timber are fixed on annual basis with the approval of the Managing Director on the recommendations of committee constituted to review market rates of the previous logging year. We observed that the Corporation had not framed any guidelines for determination of the floor price of forest produce.

We examined the fixation of floor price of species viz. Sal, Sheesham, *Sagaun*, *Aam*, Eucalyptus and *Khair* and observed that the percentage increase in floor price over previous logging year was finalised for the period January 2012<sup>8</sup> and January 2013<sup>9</sup> at 0.61 *per cent* to 12.26 *per cent* less than the percentage increase in average sale price over previous logging year without any justification on record.

Thus, the Corporation failed to realise best prices from market on the sale of 2,56,283 cum round timber valuing ₹ 333.98 crore made during January 2012 to December 2013 due to fixation of floor price on lower side.

Management accepted the observations and stated (October 2014) that in future this would be kept in view.

*We recommend that the Corporation should revise the floor prices equivalent to the increase in the average sales prices.*

***Delay in revision of floor price***

**2.1.16** Floor price of round timber are fixed with the approval of the Managing Director on the recommendations of committee constituted to review market rates of the previous logging year. Since the logging year starts in October each year, the revised floor prices were to be fixed in such a manner that these were made applicable from October each year.

Sites of 91 lots out of 472 lots test checked in three Divisions were handed over back to the Department with a delay of 1 to 238 days after the completion of felling

Corporation failed to realise best prices due to revision of floor prices at rates below the rate of increase in the average sale price over previous logging year

<sup>7</sup> Base price fixed for judging the reasonability of rates for sale of forest produce obtained in the auction

<sup>8</sup> In respect of Sal, Sheesham under both reserve forest and social forestry

<sup>9</sup> In respect of Sheesham and eucalyptus under reserve forest and in respect of sheesham under social forestry

Corporation lost the opportunity to earn additional revenue due to delay in revision of the floor prices

We observed that the rates of round timber for the logging years 2010-11, 2011-12, 2012-13 and 2013-14 were revised w.e.f. January 2011, January 2012, January 2013 and January 2014. Thus, due to delay in revision of rates, the Corporation lost the opportunity to earn additional revenue during the period October 2010 to December 2013.

The Management stated (October 2014) that for each logging year, felling starts in November and the sale list is prepared for auction in January. Therefore, the floor prices are fixed from January. The reply is not acceptable as felling starts from October as prescribed in GoUP order of October 2002. Further, revised floor prices are effective for the current as well as previous stock lying in depots.

*We recommend that the Corporation should make the revision in the floor prices effective from the start of new logging year.*

### **Supply of Sal Sleepers and Edgings for Maha Kumbh Mela 2013**

**2.1.17** Uttar Pradesh Public Works Department (UPPWD) placed (December 2011) order of approximate 23,000 Sal Sleepers/ edgings with the Corporation for the Maha Kumbh Mela (MKM) 2013.

Corporation irregularly charged centage of ₹ 86 lakh on 11,475 Sal sleepers supplied to UPPWD

We observed that Corporation procured 11,475 Sal Sleepers from other forest corporations viz. Chhatisgarh State Forest Development Corporation (6349 sleepers) and Punjab State Forest Development Corporation (5126 sleepers) and supplied it to the UPPWD for ₹ 15.58 crore after charging centage of ₹ 86 lakh. Charging centage was irregular in view of the GoUP order (January 2011) which provided that centage was not to be levied on bought out items. Management stated (October 2014) that centage was charged in accordance with the GoUP order (January 2011). Reply is not acceptable as the Management has referred to point number 2 of the aforesaid GoUP order whereas in point number 5 of same order the GoUP had specifically prohibited charging centage on bought out items.

### **Collection, Disposal and Royalty of Tendu leaves**

**2.1.18** *Tendu* leaves are used for making *bidis*. It is collected during May-June each year. It is purchased from the collectors through *Fud Munshis* (commission agents engaged for collection of leaves from the collectors). The leaves are purchased in bundles of 50 leaves each. The collection is accounted for in standard bags and each standard bag consists of 1,000 bundles.

Turnover of *tendu* leaves constituted 10.75 per cent (₹ 184.86 crore) of the total turnover ((₹ 1720.42 crore) of the Corporation during the years 2009-10 to 2013-14 as shown in table 2.1.1. The Corporation paid royalty of ₹ 18.98 crore on *tendu* leaves to the GoUP. A comparison of targets fixed with actual results of the Corporation for the last five years in respect of *tendu* leaves are as under:

**Table-2.1.3**

Year	Target (in standard bags)	Achievement (in standard bags)	Shortfall (-)/ Excess (in standard bags)	Percentage of shortfall (-)/ excess
2009-10	219831	219915	84	0.04
2010-11	269552	269675	123	0.05
2011-12	166491	166491	0	0
2012-13	281819	281307	-512	-0.18
2013-14	202717	202717	0	0
<b>Total</b>	<b>1140410</b>	<b>1140105</b>	<b>(-) 305</b>	<b>(-) 0.03</b>

Source: Budgets and Annual accounts

While the targets of collection of *tendu* leaves were achieved during the years 2009-10 to 2011-12 and 2013-14, it could not be achieved during the year 2012-13.

Six DLMs (Renukoot, Obra, Mirzapur Allahabad, Karwi and Lalitpur) out of 17 DLMs are mainly engaged in collection of *tendu* leaves. Of these, two DLMs (Renukoot and Karwi) engaged in collection of *tendu* leaves were selected for audit. Irregularities noticed in collection, disposal and payment of royalty on *tendu* leaves are as under:

**Short receipt of *tendu* leaves at godowns**

**2.1.19** On receipt of *tendu* leaves at the collection centre (*Fud*), the quantity received is entered in proforma 1.1 showing date-wise collection of *tendu* leaves. The daily collection/ purchase of *tendu* leaves at *fud* and its transportation to godown is recorded in the prescribed proforma containing unit and section wise collection of *tendu* leaves. The basic record for monitoring of collection of *tendu* leaves and its transportation to the Godown at the Division is done through the Daily Production Report (DPR).

Table below indicates status of standard bag purchased and sent for storage of *tendu* leaves:

**Table-2.1.4**

Sl. No.	Name of Logging Division	Period	Standard bags purchased	Standard Bags reported as received in godown for storage	Short receipt in godowns (4-5)
(1)	(3)	(2)	(4)	(5)	(6)
1	Karwi	2009-10 to 2013-14	229466	224972	4494
2	Renukoot	2009-10 to 2013-14	425946	425193	753
<b>Total</b>			<b>655412</b>	<b>650165</b>	<b>5247</b>

Source: DPRs, final section wise reports and godown receipts

Short receipt of 5,247 standard bags of *tendu* leaves resulted in loss of ₹ 67.66 lakh

From the table above it would be seen that in DLM Karwi and DLM Renukoot, 5,247 standard bags valuing ₹ 67.66 lakh<sup>10</sup> were short received in godowns during 2009-10 to 2013-14. No reasons were there on records for the same. Corporation failed to exercise checks on loss sustained.

The Management accepted (October 2014) and stated that shortage of bags were insignificant (0.80 per cent). The reply is not acceptable as the Corporation failed to exercise checks on shortage of bags valuing ₹ 67.66 lakh.

**Irregularities in payment to the collectors of *tendu* leaves**

**2.1.20** The Corporation prescribed (February 2001) for weekly payment to the collectors of the *tendu* leaves at the rates of collection charges per standard bag determined by the GoUP.

In respect of year 2013-14, the Corporation appointed (January 2013) ICICI Bank for payment of collection charges and bonus to the collectors. Later on due to complaints made by collectors regarding non receipt of the full amount, payments through ICICI Bank was stopped (July 2013) and further payments

<sup>10</sup> Karwi: ₹ 55.58 lakh; Renukoot: ₹ 12.08 lakh (valued at average sale rate of the respective years)

were made by the Corporation. Against total amount of ₹ 15.23 crore payable for *tendu* leaves collected during season 2013 (FY 2013-14), Corporation paid ₹ 10.42 crore through its respective divisions and ₹ 4.81 crore through ICICI Bank to *tendu* leave collectors.

We observed that:

Corporation failed to monitor disbursement of the amount remitted to ICICI Bank for collection charges to *tendu* leaves collectors for 2013-14

- Corporation failed to monitor disbursement of the amount remitted to the ICICI Bank for collection charges to *tendu* leaves collectors. *Tendu* collectors made a complaint regarding erroneous/ fraudulent payment of ₹ 1.12 crore. Since the Corporation did not provide any detail/ documentary evidence regarding disbursement of ₹ 4.81 crore by the ICICI Bank to *tendu* leaves collectors, the authenticity of the actual payment and complaints could not be ensured.

Payment of collection charges of ₹ 91.34 lakh for 13,467 standard bags were not made by Karwi and Renukoot Divisions

- Although payment to the collectors of *tendu* leaves was required to be made weekly, the payment were actually made to the collectors during July to March of the following year in Karwi Division and during May to March of the following year in Renukoot Division for seasons of May to June each year from 2009-10 to 2013-14. Thus, the payment to the collectors was made with delay of one to seven months from their collection. Reason for delay in payment was not on record.

- In Karwi Division, payment of ₹ 82.43 lakh for 12,141 standard bags pertaining to the years 2009-10 to 2013-14 and in Renukoot Division, payment of ₹ 8.91 lakh for 1,326 standard bags pertaining to the years 2010-11, 2011-12 and 2013-14 were not made so far (October 2014) to *tendu* leave collectors.

The Management stated (October 2014) that the GoUP had taken disciplinary action against senior officers of the Corporation for delay in payment. It further stated that delay in payment to the leaves collectors occurred due to delay in fixation of the collection charges by Department. Reply is not acceptable as the collection charges were to be paid on weekly basis till its revision by the Department.

### ***Quality of *tendu* leaves***

**2.1.21** The quality of *tendu* leaves depends upon the weight, size, softness, number of hairs, colour and shine of the leaves. The observations on the quality of the *tendu* leaves are discussed in succeeding paragraphs:

#### ***Tendu leaves affected by rain***

**2.1.22** As per directives issued by the Corporation in February 2001, the *tendu* leaves collected at the collection centre are to be protected from rain during the period of processing and storage as it damages the quality of *tendu* leaves. The leaves which get affected during the period of processing and storage are referred to as rain affected *tendu* leaves which are sold at very low prices.

Corporation did not fix any norm for rain affected *tendu* leaves

We observed that the Corporation did not fix any norm for rain affected *tendu* leaves to monitor the loss. Detail of normal and rain affected *tendu* leaves in respect of Renukoot, Obra and Karwi divisions for the period 2009-10 to 2013-14 is given in the table 2.1.5.



Table-2.1.5

(Quantity: in standard bags)

Year <sup>11</sup>	Season	Normal bags	Rain affected bags	Total bags	Percentage of rain affected bags
2009-10	2009	109121.787	23.050	109144.837	0.02
2010-11	2010	141059.649	385.225	141444.874	0.27
2011-12	2011	114252.250	7187.021	121439.271	5.92
2012-13	2012	222601.442	14.620	222616.062	0.01
2013-14	2013	139635.306	17720.068	157355.374	11.26
<b>Total</b>		<b>726670.434</b>	<b>25329.984</b>	<b>752000.418</b>	<b>3.37</b>

Source: Report of weighment by Sales Division

Failure in protecting *tendu* leaves from rain causing deterioration in the quality led to loss of ₹ 2.15 crore on 24,907.089 standard bags affected by rain

We observed that rain affected bags were 5.92 *per cent* and 11.26 *per cent* in 2011-12 and 2013-14 respectively. Due to failure in protecting *tendu* leaves from rain causing deterioration in the quality, the Corporation suffered loss of ₹ 2.15 crore<sup>12</sup> on 24,907.089 standard bags affected by rain in above three Divisions during 2011-12 and 2013-14.

Management stated (October 2014) that the *tendu* leaves are to be sundried in open for 8 to 10 days and is difficult to protect them from rain and fix a norm for rain affected *tendu* leaves. Reply is not acceptable as the Management had not taken any preventive measures by arranging for covering the collected leaves with polyethene sheets immediately at the time of rains and proper storage of leaves.

*We recommend that the Corporation should determine the norms for rain affected tendu leaves and fix the responsibility of the erring officers/ officials in cases of loss above such norms.*

### **Decline in average weight of *tendu* leaves**

**2.1.23** *Tendu* leaves are sold by weight. To increase the performance of the quality of *tendu* leaves, the Corporation directed (February 2001) for analysing the average weight of standard bag of the season with the average weight for the previous three years.

We noticed that:

- the average weight per standard bag increased in 62 *per cent* and 82 *per cent* units of Karwi and Renukoot Divisions during the years 2012 and 2013 respectively than the corresponding average weight of the preceding three years. It, however, decreased in 38 and 18 *per cent* units of these Divisions during the same period by 0.01 to 14.25 Kg per standard bag (**Annexure-2.1.3**).
- the average weight per standard bag increased as compared to the average weight per standard bag of the preceding year in 22 to 95 *per cent* units in Karwi and 40 to 82 *per cent* units in Renukoot during the four years 2010 to 2013 but it decreased in 5 to 78 *per cent* units in Karwi and 18 to 60 *per cent* units in Renukoot by 0.02 to 16.80 Kg per standard bag during the above period (**Annexure-2.1.4**).

The average weight per standard bag decreased than the average weight of the preceding year by 0.02 to 16.80 Kg per standard bag in 5 to 78 *per cent* units during 2010 to 2013 in two Divisions

<sup>11</sup> Quantity for 2009-10 and 2010-11 includes Renukoot and Obra as quantity for Karwi in respect of these years were not made available

<sup>12</sup> At the differential rate of ₹ 862.82 per standard bag (Average rate of normal standard bag: ₹ 1596.01- Average rate of rain affected standard bag: ₹ 733.19)

The Corporation failed to take corrective measures to restrict the decline in average weight as it did not analyse the reasons for decline in average weight of *tendu* leaves.

The Management stated (October 2014) that weight of *tendu* leaves depend upon its size which in turn is dependent on climatic conditions<sup>13</sup>. Reply is not acceptable as the increase of average weight of *tendu* leaves in 62 and 82 *per cent* units during 2012 and 2013 respectively in the same region indicates that climatic conditions were favourable.

### ***Tendu culture***

**2.1.24** The Corporation conducts (15 February to 15 March) *tendu* culture prior to the start of the collection season in order to increase the quantity and quality of *tendu* leaves. To analyse the effect of *tendu* culture, the quality of *tendu* leaves produced in the area where *tendu* culture was done, was to be compared with certain parameters decided on the basis of production figures of the nearby control units where *tendu* culture had not been done.

**Renukoot Division did not analyse the results of *tendu* culture against the parameters prescribed with their respective control units during the years 2010 to 2013**

Renukoot and Karwi divisions of the Corporation incurred expenditure of ₹ 1.19 crore on *tendu* culture for four *tendu* seasons 2010 to 2013. In this regard, we observed that despite incurring expenditure of ₹ 67.94 lakh for four *tendu* seasons 2010 to 2013, Renukoot Division did not analyse the results of *tendu* culture with reference to the prescribed parameters with its nearby control units. Thus, effects of *tendu* culture could not be ascertained by the Division.

We test checked 9 and 11 units of Renukoot Division for *tendu* season 2012 and 2013 respectively where *tendu* culture was done at an expenditure of ₹ 36.86 lakh and noticed that:

- the total production declined in one (11.11 *per cent*) and in four units (36.36 *per cent*) during the year 2012 and 2013 respectively against their corresponding average production of the last three years.
- the average weight per standard bag declined in three and two units during 2012 (33.33 *per cent*) and 2013 (18.18 *per cent*) respectively against their corresponding average weight per standard bag of the last three years.

**The average weight per standard bag were lower than their respective control units in 11 out of 27 units where *tendu* culture was done in Karwi Division for seasons 2011 to 2013**

We further observed that in Karwi Division despite incurring expenditure of ₹ 47.34 lakh on *tendu* culture for *tendu* seasons 2011 to 2013, the average weight per standard bag in respect of 11 out of 27 units, was lower than that of their respective control units. Moreover, the average weight per standard bag did not increase as compared to the weight in the previous year in six out of ten units (*tendu* season 2012) and in one out of nine units (*tendu* season 2013) in which *tendu* culture was done.

The Management stated (October 2014) that benefits of *tendu* culture are achieved only when followed by suitable weather conditions. Further, *tendu* leaves collectors deposit the *tendu* leaves from area covered under culture as well as from area not covered under culture at the same *fuds*, thus comparison

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<sup>13</sup> Climatic conditions include direction of flow of wind and temperature during the season. Westerly winds and high temperature are favourable for *tendu* leaves



is not practical. Reply is not acceptable as the weather conditions for the units under review and their respective control unit<sup>14</sup> are nearly the same.

*We recommend that the location of the fuds should be fixed at such a central point so that total tendu leaves of the area are delivered to the concerned unit only and ensure that the results of tendu culture are compared with the control units.*

### **Non return of Hessian bags**

**2.1.25** Hessian bags<sup>15</sup> are issued by the Division to the section officers who in turn provide it to the *Fud Munshis* through their Unit Incharge. Para 3.7.4 of the Handbook on *Tendu* leaves directives (2001) prepared by the Corporation provides that the empty bags at the end of the season shall be returned. In case of non-return of the empty bags, recovery was to be made at double the rate of collection charges for a standard bag from the commission of *Fud Munshi*/ Unit Incharge.

We observed that:

- In DLMs Karwi and Renukoot, 1,453 unused bags were lying with the *Fud Munshis*/ Unit Incharges/ Section Officers but the required recovery of ₹ 20.53 lakh on account of non return of unused bags was not made.
- Further, recovery for 249 unreturned bags pertaining to the year 2006-07 to 2008-09, was not made despite issue of notices by the Karwi Division in January 2013.

The Management stated (October 2014) that measures for return/recovery of these bags would be taken.

### **Delay in disposal of tendu leaves**

**2.1.26** *Tendu* leaves are of perishable nature and all possible efforts are needed to dispose-off the stock of *tendu* leaves at the earliest.

We noticed that DSM Duddhi could not sell the 48,158.99 standard bags of the *tendu* leaves collected by Obra and Renukoot Divisions during 2006-07 to 2013-14 in the year of collection except for the year 2011-12. Such standard bags of *tendu* leaves were sold in the subsequent years at a lower rate ranging from ₹ 9.98 to ₹ 1881.53 per standard bag as compared to the average rate of the respective year of the collection ranging from ₹ 901.54 to ₹ 3132.99 per standard bags (*Annexure- 2.1.5*). Thus, due to failure in disposal of *tendu* leaves in the year of collection, the Corporation suffered loss of ₹ 4.49 crore.

The Management stated (October 2014) that in spite of regular efforts, the stock could not be disposed off in several tenders. Reply is not acceptable as the Management took 24 days to 190 days to finalise the award of tenders which caused delay in disposal of *tendu* leaves.

*We recommend that the Corporation should expedite the award of tenders to check delay in subsequent tenders and make efforts to dispose-off stock in the year of its production.*

Neither the receipt back of 1,453 unused hessian bags issued during 2009-10 to 2013-14 was ensured nor was recovery at the prescribed rates made

Failure to dispose off complete stock of *tendu* leaves during the year of collection led to loss of ₹ 4.49 crore

<sup>14</sup> Neighbour unit where culture is not done

<sup>15</sup> Hessian bags are used for storage of *tendu* leaves

### **Short payment of royalty**

**2.1.27** Royalty is payable by the Corporation on *tendu* leaves at the rates determined by a committee headed by the Principal Chief Conservator of Forest, (Monitoring and Working plan) of the State in accordance with the formula prescribed (July 2001) by GoUP.

We observed that the royalty in accordance with the above formula worked out to ₹ 209.80 crore for the period 2010-11 to 2013-14. Against this, the Corporation paid royalty of ₹ 8.28 crore to the GoUP. Thus, it paid royalty short by ₹ 201.52 crore.

Corporation made short payment of royalty of ₹ 201.52 crore to the GoUP for the period 2010-11 to 2013-14

The Management stated (October 2014) that the royalty for the years 2010-11 and onwards have not been determined and it shall be paid accordingly when determined. The reply of the Management is not acceptable as the royalty was required to be paid as per the formula prescribed by GoUP in July 2001.

### **Internal Control and Monitoring**

**2.1.28** Internal Control is a process designed to provide reasonable assurance for efficiency of operations, reliability of financial reporting and compliance of applicable rules and regulations for achieving the objectives in an efficient and effective manner. Monitoring is the regular observation and recording of activities taking place in an organisation for effective management of its activities.

We observed that the internal control system was not effective as it failed to:

- ensure compliance of order of the Corporation regarding production of logs up to the prescribed minimum girth and detect the difference in measurement of boot and bottom girth of first log;
- ensure maintenance of the prescribed records of production viz. lot ledgers which contains the detailed information in respect of each lot;
- ensure adherence to the stipulated time in handover of the sites to the Department after completion of felling;
- ensure return of empty hessian bags at the end of *tendu* season;
- ensure compliance of the Corporation's order for analysing the results of *tendu* culture; and
- check loss due to short receipt of *tendu* leaves at godowns.

The Corporation also failed to monitor the performance of production effectively as the actual production of the round timber were not compared with the estimated production of the respective lots and actual progressive production up to the respective months were compared with the targeted production of the whole year. The targets of production and sale of forest produce reported to the GoUP differed from the targets approved in the budget of the Corporation and the data of actual production and sales reported to the GoUP differed from that appearing in the annual accounts of the Corporation.

### Best Practice

**2.1.29** The Corporation started (2012) the sale of forest produce through e-auction besides continuing the existing system of normal open auction. The web portal allows the registered bidders to submit advance bid also. The bids of such bidder are considered to the above extent in accordance with the bids submitted by other bidders and this procedure continues till the bids offered by other bidders exceed his highest predetermined bid. The highest bid after the closure of the auction can be viewed by the bidders. The results of the tender are prepared by the software. The approval of the lots is also displayed on the website. The Corporation could ensure expeditious and transparent auction through this system.

### Conclusion

- The Corporation failed to start the logging work of 378 to 1,177 lots within the logging years. Consequently, it had to pay royalty at higher rates on 3,604 un-worked lots and 2,124 lots returned to Department for allotment in subsequent years.
- The Corporation adopted Quarter Girth formula for calculating volume of logs produced wherein the volume was worked out at 78.60 *per cent* of the actual volume. The loss was further compounded by short production of round timber against the required production.
- The Corporation lost the opportunity to earn additional revenue due to revision of floor prices for timber with delay and at rate lower than the rate of average increase in price of the preceding year.
- The Corporation did not fix the norms for rain affected *tendu* leaves to monitor lapses on the part of employees and suffered loss of ₹ 2.15 crore due to deterioration in quality.
- DLM Renukoot did not analyse results of *tendu* culture and DLM Karwi failed to achieve the desired benefits of *tendu* culture, conducted at a cost of ₹ 1.19 crore.
- The Corporation failed to dispose-off the complete stock of *tendu* leaves in the respective years of production which resulted in lower sales realisations by ₹ 4.49 crore during the subsequent years due to deterioration in quality.

## **2.2 Performance Audit on the Working of Power Distribution Companies**

### **Executive summary**

#### **Introduction**

The business of distribution of power in Uttar Pradesh is carried out by five Power Distribution Companies (DISCOMs) i.e. Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Purvanchal Vidyut Vitran Nigam Limited (PuVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Kanpur Electricity Supply Company Limited (KESCO). These DISCOMs work under the functional control of Uttar Pradesh Power Corporation Limited (UPPCL) and administrative control of Energy Department, Government of Uttar Pradesh. UPPCL procures the power on behalf of the DISCOMs and make available the power to the DISCOMs for distribution to the consumers. UPPCL could meet 75 *per cent* power demand in 2009-10 and 71 *per cent* in 2013-14.

The important audit findings in respect of three DISCOMs selected for Performance Audit are detailed below:

#### **Madhyanchal Vidyut Vitran Nigam Limited (MVVNL)**

- Against the required capacity addition of 4878 MVA, MVVNL planned and added transformers with capacity of 1500 MVA and 1138 MVA respectively during 2010-14 leading to shortage of 3740 MVA (77 *per cent*) as of March 2014. Resultantly, the existing transformers of MVVNL were running overloaded and posing a threat to entire distribution system.

**(Paragraph 2.2.7)**

- MVVNL had incurred excess expenditure of ₹ 10.26 crore due to award of higher package rate for repair of Distribution Transformers (DTs) and made excess payment of ₹ 6.83 crore on account of VAT on repair of DTs.

**(Paragraphs 2.2.10 and 2.2.11)**

- Operational efficiencies were adversely affected due to non-conversion of Low Tension(LT) into High Tension(HT) system, non-installation of capacitor banks at the Sub Stations(SS) and allowance of excess load loss to the private repairer firms in the contracts for repair of DTs. During 2010-14, Technical and Commercial (T&C) losses exceeded the limit allowed by Uttar Pradesh Electricity Regulatory Commission (UPERC) in three years valuing at ₹ 258.20 crore.

**(Paragraph 2.2.13 to 2.2.16)**

- MVVNL did not adhere to the applicable provisions for billing resulting in short billing of the consumers by ₹ 3.04 crore.

**(Paragraph 2.2.18)**

**Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL)**

- Against the required capacity addition of 6262 MVA, DVVNL added transformers with a capacity of 2152 MVA during 2010-14 leading to shortage of 4110 MVA (66 *per cent*) as of March 2014. Resultantly, the existing transformers of DVVNL were running overloaded and posing a threat to entire distribution system.

**(Paragraph 2.2.27)**

- DVVNL had incurred excess expenditure of ₹ 12.62 crore due to award of underground cable laying works at higher rates, award of higher package rate for repair of DTs and made excess payment of ₹ 4.52 crore on account of Value Added Tax (VAT) on repair of DTs.

**(Paragraphs 2.2.29 to 2.2.31)**

- Operational efficiencies were adversely affected due to non-installation of capacitor banks at the SSs and allowance of excess load loss to the private repairer firms in the contracts for repair of DTs. During 2010-14, T&C losses exceeded the limit allowed by UPERC in two years valuing at ₹ 879.17 crore.

**(Paragraph 2.2.32 to 2.2.34)**

- DVVNL did not adhere to the applicable provisions for billing resulting in excess billing of consumers by ₹ 12.42 crore and short billing by ₹ 98.17 crore.

**(Paragraph 2.2.35)**

- DVVNL unduly retained subsidy of ₹ 25.58 crore and mis-utilised the subsidy of ₹ 3.38 crore received from GoI for release of connections to private tube well consumers during 2013-14 under Bundelkhand Drought Mitigation Scheme.

**(Paragraphs 2.2.41 and 2.2.42)**

**Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)**

- Against the required capacity addition of 8715 MVA, PuVVNL planned and added transformers with a capacity of 1678 MVA and 1355 MVA respectively during 2010-14 leading to shortage of 7360 MVA (84 *per cent*) as of March 2014. Resultantly, the existing transformers of PuVVNL were running overloaded and posing a threat to entire distribution system.

**(Paragraph 2.2.46)**

- PuVVNL had incurred excess expenditure of ₹ 3.34 crore due to award of higher package rate for repair of DTs and made excess payment of ₹ 6.13 crore on account of VAT on repair of DTs.

**(Paragraphs 2.2.48 and 2.2.49)**

- Operational efficiencies were adversely affected due to non-conversion of LT into HT system and non-installation of capacitor banks at the SSs. During 2010-14, T&C losses exceeded the limit allowed by UPERC in three years valuing at ₹ 309.46 crore.

**(Paragraph 2.2.50 to 2.2.52)**

**Introduction**

**2.2.1** The business of distribution of power in Uttar Pradesh is carried out by five Power Distribution Companies (DISCOMs)<sup>16</sup>. These DISCOMs are working under administrative control of Energy Department, Government of Uttar Pradesh (GoUP) and functional control of Uttar Pradesh Power Corporation Limited (UPPCL). The UPPCL procures the power on behalf of the DISCOMs and make available the power to the DISCOMs for distribution to the consumers. The power demand of the State was 10856 MW during 2009-10 which increased to 15044 MW during 2013-14. Against this, UPPCL could meet the power demand 8186 MW (75 per cent) and 10659 MW (71 per cent) respectively.

Out of five DISCOMs, three DISCOMs viz, Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL) were selected for Performance Audit. The audit findings on remaining two DISCOMs, viz. Kanpur Electricity Supply Company Limited (KESCO) and Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) had already been featured in Audit Report ending on 31 March, 2011. The turnover and profitability of all the five DISCOMs, as per latest certified annual accounts (2012-13) are given below:

**Table-2.2.1**

(₹ in crore)		
DISCOMs	Turnover	Profit & Loss
MVVNL	4257.84	(-) 2135.55
DVVNL	5174.24	(-) 3364.06
PuVVNL	5064.23	(-)2584.02
PVVNL	9203.89	(-) 1303.35
KESCO	1145.72	(-) 544.87

Source: Annual Accounts of DISCOMs.

The main objective of the DISCOMs is to distribute the power, made available by UPPCL, to the consumers through reliable and adequate distribution network system at the tariff rate approved by Uttar Pradesh Electricity Regulatory Commission (UPERC).

MVVNL, DVVNL and PuVVNL employed 6597 (49 per cent), 4504 (47 per cent) and 7868 (46 per cent) employees against sanctioned strength of 13510, 9598 and 16991 respectively as on 31 March 2014.

Performance audit on the selected DISCOMs was conducted for the period 2009-10 to 2013-14 to ascertain whether these DISCOMs were able to function in line with the envisaged objectives.

**Organisational set up**

**2.2.2** The Management of the DISCOM is vested with a Board of Directors comprising Chairman, Managing Director (MD) and three other Directors appointed by the State Government. The day-to-day operations are carried out by the MD, who is the Chief Executive of the DISCOM, with the assistance of

<sup>16</sup> Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Purvanchal Vidyut Vitran Nigam Limited (PuVVNL), & Paschimanchal Vidyut Vitran Nigam Limited (PVVNL), all incorporated in May 2003 and Kanpur Electricity Supply Company Limited incorporated in July 1999, under the Companies Act, 1956.

Chief Engineers, Superintending Engineers and Executive Engineers at headquarters and field.

#### **Audit objectives**

2.2.3. The objectives of the performance audit were to assess:

- adequacy of distribution network and award of works contracts for establishing distribution network in an economic and effective manner.;
- operational efficiency in curtailing of sub-transmission and distribution losses and replacement of Low Tension (LT) into High Tension(HT) system;
- billing and collection efficiency of revenue from consumers; and
- a system in place to attain the consumers satisfaction and redressal of grievances as per provisions of the U. P. Electricity Supply Code, 2005.

#### **Audit criteria**

2.2.4 The audit criteria considered for achievement of audit objectives for evaluation of performance of the DISCOMs were:

- Electricity Act, 2003;
- U.P. Electricity Supply Code 2005 and Tariff orders approved by UPERC
- State Energy policy 2009 business plans, guidelines/instructions /directions of State Government/UPERC/ UPPCL;
- Agenda, minutes of the meeting of the BOD of the DISCOMs and directives issued by the DISCOMs; and
- Standard procedures for award of contract with reference to principles of economy, efficiency and effectiveness; norms of technical and non-technical losses.

#### **Scope and Methodology of audit**

2.2.5 The present performance audit was conducted during January 2014 to October 2014. The audit examination involved scrutiny of records of Head Office of three DISCOMs and selected units. There were 311 units in the three DISCOMs. Out of these total units, 67 units<sup>17</sup> (21.5 per cent) were selected on stratified random sampling basis. The main source of revenue to the DISCOMs is from sale of power. The turnover of sample units of the DISCOMs was ₹ 10,422.85 crore (27.02 per cent) against the total turnover of ₹ 38,577.42 crore during 2009-10 to 2012-13.

The methodology adopted for attaining the audit objectives with reference to audit criteria consisted of explaining scope of audit and audit objectives to top Management and Government in an “Entry Conference” held on 5 May 2014, scrutiny of records at Head Office of DISCOMs and selected units, interaction with the auditee personnel, analysis of data with reference to audit criteria, raising of audit queries and issue of draft performance audit report to the Management and Government for comments. Audit findings were discussed

<sup>17</sup> Electricity Distribution Divisions (EDDs), Electricity Urban Distribution Divisions (EUDDs), Electricity Store Divisions (ESDs), Electricity Secondary Works Divisions (ESWDs) and Electricity Workshop Divisions (EWDs)



with the Management and Government in an “Exit Conference” held on 8 December 2014/ 29 December 2014. The replies of MVVNL, DVVNL and PuVVNL were received in December 2014, January 2015 and December 2014 respectively which were suitably incorporated in the Performance Audit. The reply of the Government is awaited (January 2015).

**Audit findings**

DISCOM wise audit finding are discussed in succeeding paragraphs:

**Madhyanchal Vidyut Vitran Nigam Limited (MVVNL)**

**2.2.6** MVVNL caters the electricity distribution requirement of 33.36 lakh consumers spread over in 19 districts, as of March, 2014. Our findings on Adequacy of Distribution network are as detailed below:

**Adequacy of Distribution network**

**2.2.7** As per Energy Policy 2009 issued by Government of Uttar Pradesh (GoUP) in October 2009, to maintain quality supply of power the DISCOMs are required to ensure the availability of adequate and sound distribution network by way of construction of new Sub-stations (SS) and 33 KV lines, augmentation of the existing SS and timely installation, maintenance and repair of the distribution transformers. Transformation capacity is the installed capacity of sub-station to cater the connected load of the consumers. As per Clause 4.2 (a) of Supply Code, wherever the existing transformation capacity is loaded up to 80 *per cent* of its capacity, licensee is required to prepare a scheme for augmentation of such transformation capacity.

The position of existing and required transformation capacity and existing shortage of capacity in respect of MVVNL is detailed in *Annexure-2.2.1&2.2.2* and summarised in table 2.2.2.

**Table-2.2.2**

Sl. No.	Particulars	Capacity (MVA)
1	Existing transformation capacity as on April 2009	4460
2	Required transformation capacity as on April 2009	7081
3	Shortage in transformation capacity as on April 2009 (Row:2-1)	2621
4	Existing transformation capacity as on March 2014	5598
5	Required transformation capacity as on March 2014	9338
6	Shortage in transformation capacity as on March 2014 (Row:5-4)	3740
7	Transformation Capacity required to be added during 2009-10 to 2013-14 (Row:5-Row:1)	4878

*Source : Information furnished by the MVVNL.*

It may be seen from above, that the shortage of 2621 MVA in transformation capacity as of April 2009 increased to 3740 MVA as of March 2014. This indicated that the transformation capacity of MVVNL was running overloaded and causing threat to entire distribution network. To ascertain the reasons for the prevalent shortage in transformation capacity, we analysed the data relating to required capacity to be planned, capacity planned as well achieved as detailed in *Annexure-2.2.1 & 2.2.2* and summarised in table 2.2.3.

Table-2.2.3

Sl. No.	Particulars	Capacity (MVA)
1	Transformation Capacity required to be planned during 2009-10 to 2013-14	4878
2	Capacity planned during 2009-10 to 2013-14	1500
3	Capacity added during 2009-10 to 2013-14	1138
4	Shortfall in planned capacity addition $\{(Row:2-3)*100/Row:2\}$	362 (24%)
5	Shortfall in capacity as of March 2014 $\{(Row:1-3)*100/Row:1\}$	3740 (77%)

Source : Information furnished by the MVVNL.

It may be seen from above table that:

- Against required capacity addition of 4878 MVA to be planned and added, MVVNL planned and added the capacity of 1500 MVA and 1138 MVA respectively during 2009-10 to 2013-14. Resultantly, there was a shortage of 3740 MVA (77 per cent) in transformation capacity of MVVNL (March 2014) due to inadequate planning. The reason for inadequate planning was attributed to ad-hoc basis planning made by MVVNL instead of preparation of integrated annual plan.
- Further, MVVNL failed to achieve the planned capacity addition of 1500 MVA resulting in shortfall of 362 MVA (24 percent) during 2009-10 to 2013-14. The reasons for above shortfall as analysed by audit were attributed to delay in start of work, non-availability of land, delay in availability of material to contractors for construction of SSs and localised disputes, etc.

*MVVNL needs to plan adequately to reduce shortage of transformation capacity with strict adherence to the devised plan.*

#### ***Award of works contract***

**2.2.8** To ascertain the economy and effectiveness in the award of works contracts, we analysed the cases of award of work contracts by MVVNL. The irregularities noticed in this regard, are discussed in succeeding paragraphs:

#### ***Contracts for repair of distribution transformer***

**2.2.9** DISCOMs carried out the work of repair of distribution transformer (DT) through outside agencies and also through departmental transformer repair workshops (TRWs). Irregularities noticed in repair of DTs are discussed below:

#### ***Award of higher package rate***

**2.2.10** For repair of DTs through outside agencies, DISCOMs awarded package rate contracts. The major cost in the package attributed to cost of aluminium/copper coil used in repair of transformers. Cost of aluminium/copper coil is based on the cost of aluminium/copper rod as per IEEMA circulars and cost of conversion of rod into coil. To ascertain the reasonability of package rates of coil, the DISCOMs were required to make analysis of rate on the basis of prevailing rate of aluminium/copper rod as per IEEMA circulars and the conversion cost of rod into coil.

The running repair contracts<sup>18</sup> entered into by DISCOMs revealed that the awarded package rates<sup>19</sup> of aluminium and copper coil per Kg. varied from

<sup>18</sup> Executed by DISCOMs during 2005-06.

<sup>19</sup> Package rates of coil so awarded were based on the rate of Aluminium and copper rod as on 1 November 2003 subject to variation based on the rate prevailing on the date of supply as per IEEMA circular.

₹ 165.84 to ₹ 212 per Kg. and ₹ 257.92 to ₹ 290.25 per Kg. respectively for the different capacity of transformers (*Annexure-2.2.3*).

We noticed that in a simultaneous repair contracts awarded in May 2013, the cost of conversion of rod into coil was 20.16 per cent of the cost of rod as per IEEMA circulars prevailing in January 2013. We analysed the aforesaid awarded rates (being the running contract during the period of review) by applying the 20.16 per cent conversion cost on the cost of rod<sup>20</sup> and found that the allowable package rates were ₹ 110.49 per Kg. for aluminium coil and ₹ 157.58 per Kg for copper coil which were lower than the awarded package rates by 26.62 to 47.88 per cent (*Annexure-2.2.3*). Thus, award of package rates without any rate analysis to ascertain reasonability of rates led to excess expenditure of ₹ 10.26 crore incurred by MVVNL on repair of 28538 DTs during 2011-12 to 2013-14.

#### ***Excess payment of VAT on HV/LV coils***

**2.2.11** As per schedule-II of U.P. Value Added Tax (VAT) Act, 2008, VAT at the rate of four per cent was payable on Aluminium and Copper HV/LV coils used by the repairer firms. But under Section 59 of the U.P. VAT Act, 2008, Commissioner, Trade Tax, decided (17 March 2008) the rate of 12.5 per cent on the above material for levy of VAT on the plea that Aluminium and Copper HV/LV coils were not separately classified in the Schedule 126.

**Non-redressal against the decision of the Commissioner Trade Tax resulted in excess payment on account of VAT of ₹ 6.83 crore to the repairer firms**

We noticed that the Aluminium and Copper HV/LV coils were specifically classified in Schedule II for VAT rate of four per cent. Further MVVNL was also paying VAT at the rate of four per cent on Aluminium and Copper wire, purchased for transformers repaired by the their departmental Workshops. Despite above, MVVNL did not seek redressal with the higher authorities against the above decision of the Commissioner, Trade Tax which led to avoidable payment of on account of VAT ₹ 6.83 crore to the repairer-firms at higher rates<sup>21</sup> during 2009-10 to 2013-14.

*MVVNL may conduct adequate rate analysis for award of works contracts to maintain economy.*

#### **Operational Efficiencies**

**2.2.12** Adequate power supply at the proper voltage level is an indicator of performance of a sound distribution system and its operational efficiencies. Operational efficiency is reflected from reduced sub-transmission and distribution losses by minimising Low Tension (LT) distribution network and installation of Capacitor Banks (CBs). Issues impacting the performance of the distribution system and its operational efficiencies are discussed below:

#### ***Sub-Transmission and Distribution Losses***

**2.2.13** The distribution system is an important and essential link between the power generation source and the ultimate consumer of electricity. While energy is carried from the generation source to the consumer, some energy is lost in the network. The losses occur mainly on two counts *i.e.* technical and commercial (T&C). The position of energy available for sale vis-à-vis energy billed and T&C losses incurred by MVVNL as well as target of losses fixed by UPERC is depicted in table 2.2.4

<sup>20</sup> Aluminium rod of ₹ 91.95 per Kg. and Copper rod of ₹131.14 as on 1 November 2003

<sup>21</sup> 2009-10: 13 per cent, 2010-11 to 2012-13: 13.5 per cent and 2013-14: 14 per cent.

Table 2.2.4

SL. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14 (Provisional)
1	2	3	4	5	6	7
1.	Energy available for sale	9755	10945	12537	13146	14175
2.	Energy billed	7546	7878	9233	9880	10710
3.	Energy losses (1 – 2)	2209	3067	3304	3266	3465
4.	Percentage of energy losses $\{(3 / 1) \times 100\}$	22.64	28.02	26.35	24.84	24.44
5.	Target fixed by UPERC (Per cent)	18	28.08	25.63	23.63	27.05
6.	Excess losses (in MUs)	452.64	NIL	90.27	159.07	NA
7.	Average realisation rate per unit (in ₹) <sup>22</sup>	3.36	4.25	4.16	4.31	NA
8.	Value of excess losses (₹ in crore) (6 x 7)	152.09	NA	37.55	68.56	NA

Source : Information furnished by the MVVNL

During 2010-14, the T&C losses exceeded the limits allowed by UPERC in three years valuing ₹ 258.20 crore

It may be seen from above table that the T&C losses were within the target fixed by UPERC during 2010-11 and 2013-14 and in excess of the targets in remaining three years resulting in loss of energy of 701.97 MUs valuing ₹ 258.20 crore . We noticed that the reasons of above excessive losses were attributed to non-conversion of the LT into HT system, non- installation of Capacitor Banks at SSs and allowance of excess load loss in repair of transformers, as discussed in succeeding paragraphs 2.2.14, 2.2.15 and 2.2.16.

#### **Non-conversion of Low Tension (LT) into High Tension (HT) system**

**2.2.14** Supply of power through HT system improves the supply of power at proper voltage level and reduces the loss of energy by minimising theft of power. GoI also stressed (February 2001) the need to convert LT system of distribution into high tension (HT).

We noticed that there were 1.01 lakh Kms of HT and 2.91 lakh Kms of LT lines in MVVNL at the beginning of 2009-10. To minimise the LT system of supply, MVVNL was required to reduce existing LT lines by conversion of these lines into new HT lines. We noticed that instead of reducing the LT lines, MVVNL planned for construction of 32000 Kms HT lines and 38000 Kms of LT lines during 2009-10 to 2013-14. Against the plan, MVVNL constructed 28952 km of HT lines (29 per cent of existing HT lines as of April 2009) and 35367 km of new LT lines (12 per cent of existing LT lines as of April 2009). This indicated that the focus of MVVNL was not on minimising the LT lines by conversion of these lines into new HT lines.

#### **Non-installation of Capacitor Banks**

**2.2.15** Installation of Capacitor banks (CBs) at 33/11 KV SSs improves power factor by regulating the current flow and voltage and save loss of energy. Erstwhile Uttar Pradesh State Electricity Board assessed (July 1993), installation of one Capacitor bank (CB) of 2.4 Mega Volt Ampere Reactive (MVAR) capacity at 5 MVA secondary sub-station saves energy of 0.118 MU per annum.

Non-installation of capacitor banks of 773.28 MVAR capacity resulted in loss of energy valuing ₹ 16.04 crore per annum

We noticed that in MVVNL, CBs of 773.28 MVAR<sup>23</sup> capacity were required to be installed at 174 SSs of 1611 MVA capacity. But it failed to even plan for installation of the CBs at the sub-stations. Due to non-installation of CBs of required capacity, MVVNL could not save loss of energy worth ₹ 16.04 crore per annum as detailed in **Annexure-2.2.4**.

<sup>22</sup> Net Power Sold/ Revenue from Sale of Power (including revenue subsidy).

<sup>23</sup> 2.4 MVAR X1611 MVA/5.

Management accepted audit observation and stated (December 2014) that planning had been made for installation of CBs which would be installed in forthcoming years.

***Allowance of excess load loss in repair of Distribution Transformers***

**2.2.16** As per CEA Guidelines (August 2008) for energy efficiency of transformers maximum allowable load loss at rated voltage and frequency at 75° C ranged from 3320 to 9800 kWh for DTs of capacity ranging from 250 KVA to 1000 KVA .We noticed that in contravention of the above guideline allowance of load loss limits ranging from 3600 to 11200 Kwh to the private repairer firms in the contracts awarded for repair of DTs during 2010-11 to 2013-14, deprived MVVNL to save 13.59 MU energy valuing ₹ 5.86 crore on 148 transformers of 250 to 1000 KVA capacity, repaired during the period 2011-12 to 2013-14.

*MVVNL may take measures viz. installation of CBs and conversion of LT into HT system to control the T&C losses.*

**Billing and collection efficiency**

**2.2.17** As per Clause 6.1 of Supply Code, the DISCOMs are required to take the reading of energy consumption of each consumer at the end of the notified billing cycle. Billing in the DISCOMs is done at the level of division by engaging billing agencies as well as the man power deployed at the division. The billing of six categories of consumers of low medium voltage i.e. LMV-1,2,4,5,6 and 10 is done through computerised billing system and of remaining eight categories (four categories of low medium voltage i.e., LMV-3,7,8,9 and four categories of high voltage i.e. HV-1, 2,3,4), the billing is done manually.

During the period 2010-14, 60558 MUs energy was available for sale against which MVVNL billed 45247 MUs energy (74.72 per cent). Irregularities relating to billing are discussed in the succeeding paragraphs:

***Short billing***

**2.2.18** To ensure correct billing, the DISCOMs were required to comply with the provisions of applicable tariff orders, Supply Code and Government orders. We test-checked the cases of manual billing done by 18 EDDs of MVVNL out of 60 and noticed that non-compliance of applicable provisions resulted in short billing of ₹ 3.04 crore in four different cases as discussed in **Annexure 2.2.5**. The reasons for short billing were attributed to non-levy of correct demand charges, application of incorrect rates of tariff and inadmissible allowance of load factor rebate.

***Excessive bill revisions***

**2.2.19** To avoid unnecessary revision of bills and undue delay in realisation of the dues, clause 6.1 of Supply Code provides that DISCOMs should ensure the issue of correct bills to the consumers as per billing cycle. We noticed that MVVNL failed to observe the above requirement and revised bills of 13270 consumers<sup>24</sup> from ₹ 222.59 crore to ₹ 12.64 crore and waived off ₹ 209.95 crore in 2013-14 indicating revision in billed amount between 28.72 per cent and 99.07 per cent (**Annexure-2.2.6**). The reasons leading to such revision of

MVVNL failed to save 13.59 MU energy valuing ₹ 5.86 crore due to allowance of excess of load loss to private repairer firms in contracts executed for repair of transformers

Billing of the consumers in violation of the provisions of Tariff Order / Supply Code led to short billing of ₹ 3.04 crore

Bills of 13270 consumers for ₹ 222.59 crore revised to ₹ 12.64 crore involving waiver of ₹ 209.95 crore in 2013-14

<sup>24</sup> Consumers of LMV-1, 2, 4, 5 and 6 categories



bills were attributed to issue of bills on provisional basis<sup>25</sup>, bills based on incorrect meter readings, delay in sending advice for change of meter, delay in receipt of meter sealing certificate and non-adjustment/posting of amount of earlier bills paid by the consumers, etc.

**Revenue collection efficiency**

**2.2.20** Collection of revenue in DISCOMs is done through collecting staff deployed at the division, sub-division and sub-stations and by engaging outsourced Government society viz. e-Suvidha and other private agencies. Revenue collection efficiency was assessed on parameters of balance outstanding at the beginning of the year, revenue assessed during the year, revenue collected and the balance outstanding at the end of the year.

Irregularities relating to revenue collection efficiency are discussed in the succeeding paragraphs:

**Ineffective realisation of dues**

**2.2.21** The position of outstanding dues and realisation there against in MVVNL is depicted in table-2.2.5

**Table-2.2.5**

(₹ in crore)

Sl. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6	7
1	Balance outstanding at the beginning of the year	6081	6005	6263	6491	6855
2	Revenue assessed/billed during the year	2369	3124	3509	4025	5171
3	Total amount due for realization (1+2)	8450	9129	9772	10516	12026
4	Amount realised during the year	2129	2575	2858	3121	5568
5	Amount waived off during the year	317	291	422	541	1618
6	Balance outstanding at the end of the year	6004	6263	6492	6854	4840
7	Percentage of amount realised to total dues (4/3)	25.20	28.21	29.25	29.68	46.30

Source : Information furnished by the MVVNL

It may be seen from above, that the recoverable dues of ₹ 6,004 crore at the end of March 2010 were reduced to ₹ 4,840 crore (19.39 per cent) at the end of March 2014 indicating increase in collection efficiency from 25.20 percent to 46.30 per cent during the same period. We noticed that the collection efficiency though increased during 2010-14, was not enough in terms of heavy outstanding dues. Reasons for ineffective realisation of dues were attributed to non-enforcement of procedure prescribed for realisation of dues as timely action for temporary disconnection of supply, timely finalisation of permanent disconnections, prompt issue of recovery notices and regular pursuance to consumers for payment of dues.

**Recovery of pending dues through Recovery Certificates**

**2.2.22** Section 56 of the Electricity Act, 2003 stipulates that if consumer defaults the payment of electricity dues a demand notice under Section 3 of the

<sup>25</sup> NA=Non-accessible, NR= No reading, IDF=Informed defective, ADF=Appeared defective, RDF= Reading defective and CDF=Computer defective

Uttar Pradesh Government Electrical Undertakings (Dues Recovery) Act, 1958 is to be sent to recover the dues. If payment is not received even after issue of demand notice, Recovery Certificates (RCs) under Section 5 of the said Act is to be sent to the District Authorities to recover the dues as arrears of land revenue.

We noticed that eight EDDs/EUDD<sup>26</sup> sent 5752 RCs valuing ₹ 27.42 crore to the District Authorities (DAs) for recovery during 2010-14. Out of this, 1887 RCs valuing ₹ 15.51 crore were returned by them during 2010-14 with the remarks viz. incorrect address of the consumer, Consumer died, no property found in the name of consumer etc. No action to address the deficiencies in the RCs pointed out by the DAs was taken by these divisions due to which recovery of dues amounting to ₹ 15.51 crore remained unrecovered and possibility of recovery is remote.

*MVVNL may adhere to the applicable tariff orders, provisions of Supply Code and orders of Government for issue of timely and correct bills to the consumers for effective revenue realisation.*

**Dues of ₹ 15.51 crore against 1887 RCs returned by the District Authorities during 2010-14 remained unrecovered due to no action taken by MVVNL to address the deficiencies in the RCs pointed out by DAs**

### **Consumer Satisfaction and Redressal of Grievances**

**2.2.23** U. P. Electricity Supply Code, 2005 provided that the DISCOMs should adhere to the standards of performance (SOPs) for timely release of new connections, recovery of new connection charges as per Cost Data Book (CDB) and metering etc. The supply code also provided for establishment of Call Centres to provide easy access for consumer complaints and their timely and effective redressal to the satisfaction of the consumers.

Irregularities relating to issues of consumer satisfaction and redressal of grievances are discussed below:

#### ***Non-installation of meters***

**2.2.24** Clause 5.1 of Supply Code, 2005 provides that no new connection shall be given without installation of Meter and all unmetered connections shall be metered by the licensee. Unmetered consumers have to pay the energy charges on fixed tariff rates approved by UPERC. This deprives the DISCOMs to earn revenue against the actual consumption of energy consumed by the unmetered consumers on one hand and on the other hand, such consumers are forced to pay the fixed energy charges irrespective of the consumption. This indicated that the metering of the unmetered connections was of utmost importance. The position of total consumers, metered as well as unmetered consumers is depicted in the table 2.2.6

**Table 2.2.6**

Year	Nos. of consumers	Metered consumers	Unmetered consumers	Percentage of unmetered consumers
1	2	3	4 (2-3)	5
2009-10	2691568	1672426	1019142	37.86
2010-11	2864268	1848792	1015476	35.45
2011-12	3029242	2013671	1015571	33.53
2012-13	3157661	2120916	1036745	32.83
2013-14	3336182	2254260	1081922	32.43

*Source : Information furnished by the MVVNL*

<sup>26</sup> EDD-Bahraich, EDD-I, LakhimpurKheri, EDD-I, Bareilly, EDD-I, Hardoi, EDD-Barabanki, EDD, BKT, EDD-II, Bareilly, EUDD-Aishbagh,



In violation of provisions of Supply Code, 10.82 lakh consumers (32.43 per cent) were given supply without installation of meter

It may be seen from above that the unmetered consumers stood at 37.86 per cent at the end of 2009-10, which gradually decreased to 32.43 per cent at the end of 2013-14.

We analysed the reason for prevalent unmetered consumers and in our test check of 18 out of 67 EDDs, found that MVVNL had released 92867 connections to LMV-1 consumers and 6424 connections to LMV-5 consumers during 2010-14 without installation of meters. We further noticed that meters on above connections were not installed even after getting deposit of meter charges amounting to ₹ 3.55 crore and ₹ 3.53 crore respectively from the consumers during 2010-14.

#### **Failure in timely establishment of Central Call Centres**

**2.2.25** Clause 7.7.1 of Supply Code 2005 provided that Licensee shall endeavour to set up Central Call Centres (CCCs) in phases, in all cities having population exceeding 10 lakh in first phase within a definite time frame.

We noticed that there was only one city i.e. Lucknow in MVVNL, having population exceeding 10 lakh. MVVNL established CCC in that city in 2012 with a delay of seven years, the reason for such delay was not found on records. Further, out of total 33498 complaints received during April 2012 to March 2014, 16525 (49.33 per cent) complaints remained unattended (**Annexure-2.2.7**). No reasons were recorded for the same.

Management accepted audit observation and stated (December 2014) that action would be taken to strengthen the working of CCCs.

#### **Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL)**

**2.2.26** DVVNL caters the electricity distribution requirement of 25.66 lakh consumers spread over in 21 Districts, as of March, 2014. Audit findings categorised audit objective wise are discussed in the succeeding paragraph:

#### **Adequacy of distribution network**

The cases relating to development of distribution network by DVVNL are discussed below:

**2.2.27** As discussed in paragraph 2.2.7, the position of existing and required transformation capacity and existing shortage of capacity in respect of DVVNL is detailed in **Annexure-2.2.1&2.2.2** and summarised in table 2.2.7

**Table 2.2.7**

Sl. No.	Particulars	Capacity (MVA)
1	Existing transformation capacity as on April 2009	4969
2	Required transformation capacity as on April 2009	7862
3	Shortage in transformation capacity as on April 2009 (Row:2-1)	2893
4	Existing transformation capacity as on March 2014	7121
5	Required transformation capacity as on March 2014	11231
6	Shortage in transformation capacity as on March 2014 (Row:5-4)	4110
7	Transformation Capacity required to be added during 2009-10 to 2013-14 (Row:5-Row:1)	6262

Source : Information furnished by the DVVNL

It may be seen from above that the shortage of 2893 MVA in transformation capacity as of April 2009 increased to 4110 MVA as of March 2014. This indicated that prevalent transformation capacity of DVVNL was running overloaded and causing threat to entire distribution system. To ascertain the reasons for the prevalent shortage in transformation capacity, we analysed the data relating to required capacity to be planned, capacity planned as well as achieved as detailed in *Annexure-2.2.1&2.2.2* and summarised in table 2.2.8

**Table 2.2.8**

Sl. No.	Particulars	Capacity (MVA)
1	Transformation Capacity required to be added during 2009-10 to 2013-14	6262
2	Capacity planned during 2009-10 to 2013-14	-----
3	Short planning of capacity addition	-----
4	Capacity added during 2009-10 to 2013-14	2152
5	Shortfall in capacity as of March 2014	4110 (66%)

*Source : Information furnished by the DVVNL*

It may be seen from the above table that:

- Against the required capacity addition of 6262 MVA, DVVNL added only 2152 MVA capacity during 2010-14, resultantly there were shortage of 4110 MVA (66 per cent) in transformation capacity of DVVNL (March 2014). We noticed that DVVNL did not prepare any plan to meet the shortage in capacity. Hence, deficiencies in planning if any, could not be pointed out.
- Sixteen SSs identified during 2008-09 to 2012-13 for construction remained incomplete as of March 2014. The reasons for non-completion as analysed by audit were attributed to delay in finalisation of agreement, delay in start of work, stoppage of work by contractor and delay in obtaining the permission of railway crossing from Railways etc.

Management stated (January 2015) that proper planning was done for construction of new SS and lines. The reply is afterthought of the Management as no documents and information in regard with year wise planning was made available to audit.

The other specific cases indicating deficient planning and its execution in development of distribution network are discussed below:

- In Hathras 20 and in Agra five sub-stations of 33/11 KV capacity constructed during 2009-10 to 2013-14 were running on load ranging from 16 to 64 per cent and 50 to 65 per cent respectively. Further one 33/11 KV SS, constructed at Mangoli Kalan, Agra in August 2011 was lying unutilised since inception. But contrary to the above, in Electricity Distribution Division (EDD)-III, Agra, 12 sub-stations were running overloaded to the extent of 2.5 to 12.60 per cent as on March 2014.

Management did not furnish reply in respect of five SS in Agra and the reply in respect of Mangoli Kalan SS did not address the issue raised by audit.

- ESWD, Aligarh constructed four 33/11 KV SSs<sup>27</sup> of 5 MVA capacity each during December 2011 to January 2012. Even after completion, the same were not handed over to respective Divisions. Further, copper coils and core of the

<sup>27</sup> At Salempur, NabipurMaheba, Bilkhoura and Patna PachiVihar

transformers were stolen<sup>28</sup> due to which the existing transformers were declared as scrap and new transformers at a cost of ₹ 1.15 crore<sup>29</sup> were installed at above SS. DVVNL initiated enquiry and held contractor responsible for loss and booked ₹ 52.25 lakh for recovery. Out of which only ₹ 4.94 lakh could be recovered from contractor. Thus, even after considering recovery of ₹ 52.25 lakh, DVVNL had to sustain loss of ₹ 62.37 lakh due to lack in watch and ward of sub-station. This also delayed handing over of SSs by nine to 15 months (November 2012 to May 2014).

The Management stated (January 2015) that amount equivalent to estimated cost of theft material had been booked as miscellaneous advance in the names of respective contractors. The reply is not tenable as the DVVNL failed to recoup the whole loss sustained on account of transformers became scrap due to theft.

#### ***Award of works contract***

**2.2.28** As discussed in paragraph 2.2.8, the irregularities noticed in award of works contracts are discussed in succeeding paragraphs:

#### ***Deficiencies in execution of works under Twarit Arthik Vikas Yojna***

**2.2.29** Government of U.P. (GoUP) launched (October 2012) Twarit Arthik Vikas Yojna (Scheme) to accelerate the development activities in the Districts. Under the Scheme, work was to be executed by the construction agencies of GoUP departments only. In no case, private entity was to be selected for executing the work.

As per prevalent system, the DISCOMs award the contract for erection and supply of decentralised material only and provide centralised material to contractor separately. DVVNL, however, awarded three works<sup>30</sup> of conversion of overhead distribution system to underground distribution system on turnkey basis to the private contractors<sup>31</sup>. We noticed that for execution of above works, cable (centralised item) was not provided by the DVVNL, rather cables of higher rate as compared to the stock Issue rates used by DVVNL, were allowed to the Contractor, which led to extra expenditure of ₹ 9.14 crore (*Annexure-2.2.8*).

**In violation of prevalent system DVVNL included cable (centralised item) at higher rates in turnkey contract which led to extra expenditure of ₹ 9.14 crore**

We further noticed that DVVNL was entitled for centage charges<sup>32</sup> of ₹ 10.45 crore (*Annexure-2.2.9*) but it was disallowed (October 2013) by Public Work Department (PWD) and Energy Department. No efforts for release of centage were made by the DVVNL.

Management stated (January 2015) that the concerned administrative department had selected DVVNL and it was prerogative of DVVNL to decide the methodology of getting work completed and as regard to centage, there was no loss as anyway the money was with the Government. Management further stated that item wise comparison of whole package in turnkey contract was not justified.

<sup>28</sup> As per FIR lodged between May 2012 and January 2013 by the ESWD.

<sup>29</sup> Calculated by using Stock issue rate (2012-13) of one 5 MVA transformer: ₹ 2865500 X 4

<sup>30</sup> Execution of works for conversion of overhead electrical power distribution system into underground electrical power distribution system in Mainpuri, Saifai Town, Etawah and Tirwa Town Kannauj.

<sup>31</sup> KEI Industries Ltd, New Delhi, Joint Venture of S P Bright & Chaudhary Construction Company, Etawah and Raj Construction Ltd Mainpuri.

<sup>32</sup> (Cost of work minus 5 per cent)\*12.5 per cent.

The reply is not acceptable as the scheme precisely mentioned that in no case private entity was to be selected for executing the work and cable being the sensitive and centralized item, was not to be included in turnkey contracts to ensure quality and economy in execution of the work. Further, the scheme also provided for centage but due to non-pursuance, DVVNL could not obtain it.

***Award of higher package rate***

**2.2.30** As discussed in paragraph 2.2.10, non-analysis of the rates led to excess expenditure of ₹ 3.48 crore incurred on repair of 8678 DTs during 2009-10 to 2010-11.

Management stated (January 2015) that size of conductor used in 25 KVA transformers was very thin and as capacity of the transformer increases, the size of conductor goes higher. Thinner conductor cost was higher. Hence, higher rates were not allowed to outside agencies. The reply is not acceptable as it did not address the issue of non-analysis of rates before award of contract.

***Excess payment of VAT on HV/LV coils***

**2.2.31** As discussed in paragraph 2.2.11, non-protest against the decision of the Commissioner, Trade Tax led to avoidable payment of on account of VAT ₹ 4.52 crore to the repairer-firms at higher rates<sup>33</sup> during 2009-10 to 2013-14.

Management stated (January 2015) that they had complied with the orders of the Commissioner Trade Tax, GoUP. The reply is not acceptable as DVVNL did not make appeal against the decision of the Commissioner, Trade Tax.

**Operational Efficiencies**

Cases impacting the operational efficiency are discussed below:

***Sub-transmission and Distribution Losses***

**2.2.32** As discussed in paragraph 2.2.13, the position of energy available for sale vis-à-vis energy billed and the T&C losses incurred by DVVNL as well as target of losses fixed by UPERC is depicted in table 2.2.9:

**Table 2.2.9**

*(In Million Units)*

SL. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14 (Provisional)
1	2	3	4	5	6	7
1.	Energy purchased	12959	14296	16052	17331	20108
2.	Energy sold	8840	11314	11335	12577	13151
3.	Energy losses (1 – 2)	4118	2982	4717	4754	6957
4.	Percentage of energy losses $\{(3 / 1) \times 100\}$	31.78	20.86	29.39	27.43	34.60
5.	Target fixed by UPERC ( <i>Per cent</i> )	24.00	31.47	30.23	29.00	28.00
6.	Excess losses (in MUs)	1008.21	NIL	NIL	NIL	1327.13
7.	Average realisation rate per unit (in ₹) <sup>34</sup>	3.31	3.08	3.60	4.11	4.11 <sup>35</sup>
8.	Value of excess losses (₹ in crore) (6 x 7)	333.72	NA	NA	NA	545.45

Source : Information furnished by the DVVNL

It may be seen from above table that the T&C losses were within the target fixed by UPERC during 2010-11 to 2012-13 and in excess of the targets in

<sup>33</sup> 2009-10: 13 per cent, 2010-11 to 2012-13: 13.5 per cent and 2013-14: 14 per cent.

<sup>34</sup> Revenue from Sale of Power (including revenue subsidy)/Net Power Sold.

<sup>35</sup> Calculated at the average realization rate per unit of 2012-13

remaining two years resulting in loss of energy of 2335.34 MUs valuing ₹ 879.17 crore. We noticed that the reasons of above excessive losses were attributed to non-conversion of the LT into HT system, non- installation of Capacitor Banks at SSs and allowance of excess load loss in repair of transformers, as discussed in succeeding paragraphs 2.2.33 and 2.2.34. Management stated (January 2015) that adequate steps were being taken to reduce the T&C losses.

***Non-installation of Capacitor Banks***

**2.2.33** As discussed in paragraph 2.2.15, due to non-installation of CBs of 790.56 MVAR<sup>36</sup> capacity, the DVVNL could not save loss of energy worth ₹ 16.40 crore per annum as detailed in ***Annexure-2.2.4***.

Management stated (January 2015) that action for installation of new CBs and replacement/repair of damaged CBs was being taken.

***Allowance of excess load loss in repair of Distribution Transformers***

**2.2.34** As discussed in paragraph 2.2.16, due to allowance of excess load loss limit in the contracts awarded for repair of DTs during 2010-11 to 2013-14, DVVNL failed to save 22.08 MU energy valuing ₹ 9.07 crore on 347 transformers of 250 to 1000 KVA repaired during the period 2011-12 to 2013-14.

Management stated (January 2015) that transformers were being purchased regularly since long as per the then available guidelines. It was not possible to wipe out old transformers from the system since it would involve huge financial burden. The reply did not address issue of allowing higher load loss.

**Billing and collection efficiency**

Irregularities noticed in billing to consumers are discussed below:

**Short/Excess billing**

**2.2.35** As discussed in paragraph 2.2.18, non-application of energy charges for urban schedule, inadmissible allowance of load factor rebate, non levy of protective load charge and adjustment of excess amount given to consumers led to short billing of ₹ 98.17 crore (***Annexure-2.2.5***) Further, levy of electricity duty on consumers exempted from such levy, incorrect application of tariff order of October 2012 for HV-2 consumers, billing on incorrect assessed units led to excess billing of ₹ 12.42 crore (***Annexure-2.2.10***).

**Excessive bill revisions**

**2.2.36** As discussed in paragraph 2.2.19, DVVNL revised bills of 39946 consumers<sup>37</sup> from ₹ 52.24 crore to ₹ 41.22 crore and waived off ₹ 11.02 crore in 2013-14 indicating revision in individually billed amount ranged between 0.75 per cent and 74.98 per cent as detailed in ***Annexure-2.2.6***.

**Revenue collection efficiency**

Irregularities noticed relating to revenue collection efficiency are given below:

***Ineffective realisation of dues***

**2.2.37** As discussed in paragraph 2.2.21, the position of outstanding dues and realization there against in DVVNL is depicted in table 2.2.10.

<sup>36</sup> 2.4 MVAR X 1647 MVA/5.

<sup>37</sup> Consumers of LMV-1, 2, 4, 5 and 6 categories

Table 2.2.10

(₹ in crore)

Sl. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3		4	5	6
1	Balance outstanding at the beginning of the year	8782	8991	9393	9697	10230
2	Revenue assessed/billed during the year	2938	3190	3516	4270	5308
3	Total amount due for realization (1+2)	11720	12181	12909	13967	15538
4	Amount realised during the year	2298	2522	2986	3448	5102
5	Amount waived off during the year	432	265	226	288	433
6	Balance outstanding at the end of the year	8990	9394	9697	10231	10003
7	Percentage of amount realised to total dues (4/3)	19.61	20.70	23.13	24.69	32.84

Source : Information furnished by the DVVNL

It may be seen from the above table that the outstanding dues of ₹ 8,990 crore at the end of March 2010 increased to ₹ 10,003 crore (11.27 per cent) at the end of March 2014. Collection efficiency, though increased from 19.61 per cent to 32.84 per cent during the same period, was indicative of ineffective realisation of dues. Further, accumulation of dues at the end of 2013-14 despite implementation of One Time Settlement (OTS) scheme to clear the arrears during 2010-14 indicated that special drives undertaken by DVVNL could not also yield desired results.

Management stated (January 2015) that efforts were being taken to improve the collection efficiency.

#### **Recovery of pending dues through Recovery Certificates**

**2.2.38** As discussed in paragraph 2.2.22, six EDDs<sup>38</sup> sent 8311 RCs valuing ₹ 40.41 crore to the District Authorities (DAs) for recovery during 2010-14. Out of this, 2111 RCs valuing ₹ 13.34 crore were returned by them during 2010-14. No action to address the deficiencies in the RCs pointed out by the DAs was taken by these divisions due to which recovery of dues amounting to ₹ 13.34 crore remained unrecovered and possibility of recovery is remote.

Management accepted audit observation and stated (January 2015) that old RCs after correction were being sent to District Authority for effective recovery, wherever necessary.

#### **Consumer Satisfaction and Redressal of Grievances**

**2.2.39** U. P. Electricity Supply Code, 2005 provided that the DISCOMs should adhere to the Standards of Performance (SOPs) for timely release of new connections, recovery of new connection charges as per Cost Data Book (CDB) and metering etc. The supply code also provided for establishment of Call Centres to provide easy access for consumer complaints and their timely and effective redressal to the satisfaction of the consumers.

Irregularities relating to issues of consumer satisfaction and redressal of grievances are discussed in succeeding paragraphs.

<sup>38</sup> EDD-I, Agra, EDD-II, Agra, EDD-III, Fatehabad, Agra, EDD-I & II Aligarh and EDD-I Kanpur



**Bundelkhand Drought Mitigation Scheme**

**2.2.40** Under Bundelkhand Drought Mitigation Scheme, GoI accorded (March 2013) the approval for 'Energisation of Private Tubewells' at a cost of ₹ 99.67 crore for 6288 PTW prospective consumers in Bundelkhand region<sup>39</sup>. Under the scheme, maximum subsidy of ₹ 1,58,500 per consumer was admissible towards the cost of line and sub-station. Subsidy was to be utilised latest by 31 March 2014. Irregularities noticed in implementation of scheme are as under:

**Non-surrender of unutilised subsidy**

**2.2.41** EDD-I and II, Orai charged the consumers on the basis of Issue Rate of UPPCL instead of that provided in CDB. The cost of line and SS so framed were met from the subsidy to the extent of ₹ 158500 and beyond subsidy were charged from the consumers. DVVNL charged ₹ 158500 per connection from the GoI even where the cost of line and SS was lower than the subsidy amount. The details are depicted in table 2.2.11:

**Table-2.2.11**

(₹ in lakh)

Division	Consumers (Nos)	Cost of line and SS charged	Chargeable Subsidy from GoI	Subsidy charged from GoI	Charged from Consumer	Chargeable from consumer	Excess charged from GoI	Excess Charged from Consumer
1	2	3	4	5	6	7	8(5-4)	9(6-7)
EDD-I, Orai	235	380.17	254.76	372.48	7.69	0.93	117.72	6.76
EDD-II, Orai	339	550.44	360.11	537.31	13.13	0.53	177.20	12.60
<b>Total</b>	<b>574</b>	<b>930.61</b>	<b>614.87</b>	<b>909.79</b>	<b>20.82</b>	<b>1.46</b>	<b>294.92</b>	<b>19.36</b>

Source: Estimates and agreement register of the divisions

DVVNL unduly retained subsidy of ₹ 2.95 crore and did not surrender subsidy of ₹ 22.63 crore received from GoI for release of PTW connections during 2013-14 under Bundelkhand Drought Mitigation Scheme

Thus, due to non levy of charges as per CDB and not limiting the recoupment of subsidy charges as per CDB, Divisions unduly retained subsidy of ₹ 2.95 crore and also over charged the consumers by ₹ 0.19 crore. Further, in violation of the provisions<sup>40</sup> of the Scheme, DVVNL did not surrender the unutilised subsidy of ₹ 22.63 crore released by the GoI against unreleased 1428 connections.

**Irregular release of subsidy**

Irregular release of subsidy of ₹ 3.38 crore received under Bundelkhand Drought Mitigation Scheme

**2.2.42** As per Detailed Project Report (DPR) prepared under Bundelkhand package, there were 887 applicants for PTW connections in EDD-II, Orai. Division released 339 connections during 2013-14, out of which 213 connections were released to the consumers, not covered under DPR, thereby irregularly extending undue benefit of subsidy of ₹ 3.38 crore to 213 consumers. DVVNL did not take any action against mis-utilisation of subsidy despite being pointed out by the Superintendent Engineer, EDC Orai in his Enquiry Report (March 2014).

Management stated (January 2015) that suitable action for adjustment of excess amount, if any would be made on completion of the scheme. It further stated that an official at Technical Grade-II was suspended and services of a

<sup>39</sup> Jhansi, Lalitpur, Jalaun (Orai), Banda, Chitrakoot, Hamirpur and Mahoba districts.

<sup>40</sup> Clause 5 of UP Government order No. 1188 (1)/35-AA-1/2013.

contracted employee were terminated for irregularity in release of PTW connections.

The Management reply was not acceptable as the Scheme was closed on 31 March, 2014 and final adjustment was to be furnished to GoI by 30 June, 2014, which was not done. The reply pertaining to irregularity in release of PTW connection is not acceptable as action taken by the Management did not address the mis-utilisation of subsidy.

***Non-installation of meters***

**2.2.43** As discussed in paragraph 2.2.24, the position of total consumers, metered consumers as well as unmetered consumers in DVVNL is depicted in table 2.2.12.

**Table 2.2.12**

Year	Nos. of consumers	Metered consumers	Unmetered consumers	Percentage of unmetered consumers
1	2	3	4 (2-3)	5
2009-10	2137858	-	-	-
2010-11	2056873	1377110	679763	33.05
2011-12	2280313	1524021	756292	33.17
2012-13	2426261	1672256	754005	31.08
2013-14	2566021	1799401	766620	29.88

*Source : Information furnished by the DVVNL*

It may be seen from above that the unmetered consumers stood at 33.05 *per cent* at the end of 2010-11, which gradually decreased to 29.88 *per cent* at the end of 2013-14.

We analysed the reason for prevalent unmetered consumers and in our test check of 12 out of 50 EDDs, found that DVVNL had released 57203 connections to LMV-1 consumers and 16310 connections to LMV-5 consumers during 2010-14 without installation of meters. We further noticed that meters on above connections were not installed even after getting deposit of meter charges amounting to ₹ 2.59 crore and ₹ 8.83 crore respectively from the consumers during 2010-14.

Management stated (January 2015) that action had been started for procurement and installation of meters.

***Failure in timely establishment of Central Call Centres***

**2.2.44** As discussed in paragraph 2.2.25, DVVNL established one CCC in 2012 with a delay of seven years, reasons against which were not found on records. Further, out of total 4863 complaints received during April 2012 to March 2014, 1646 (33.85 *per cent*) complaints remained unattended (*Annexure-2.2.7*). No reasons were recorded for the same.

Management accepted the audit observation and stated (January 2015) that pending complaints would be settled in next two months. It also stated that efforts were being made to open CCCs in different cities.

**Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)**

**2.2.45** PuVVNL caters the electricity distribution requirement of 38.10 lakh consumers spread over in 21 Districts, as of March, 2014. Audit objective wise categorised audit findings are discussed in the succeeding paragraph:

<b>Adequacy of distribution network</b>
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The cases relating to development of distribution network by PuVVNL are discussed below:

**2.2.46** As discussed in paragraph 2.2.7, the position of existing and required transformation capacity and existing shortage of capacity in respect of PuVVNL is detailed in *Annexure-2.2.1&2.2.2* and summarised in table-2.2.13:

**Table-2.2.13**

Sl. No.	Particulars	Capacity (MVA)
1	Existing transformation capacity as on April 2009	5176
2	Required transformation capacity as on April 2009	9110
3	Shortage in transformation capacity as on April 2009 {(Row:2-1)}	3934
4	Existing transformation capacity as on March 2014	6531
5	Required transformation capacity as on March 2014	13891
6	Shortage in transformation capacity as on March 2014 {(Row:5-4)}	7360
7	Transformation Capacity required to be added during 2009-10 to 2013-14 (Row:5-Row:1)	8715

*Source : Information furnished by the PuVVNL*

It may be seen from above, that the shortage of 3934 MVA in transformation capacity as of April 2009 increased to 7360 MVA as of March 2014. This indicated that the transformation capacity of PuVVNL was running overloaded and causing threat to entire distribution network. To ascertain the reasons for the prevalent shortage in transformation capacity, we analysed the data relating to required capacity to be planned, capacity planned as well as achieved as detailed in *Annexure-2.2.1&2.2.2* and summarised in table-2.2.14.

**Table-2.2.14**

Sl. No.	Particulars	Capacity (MVA)
1	Transformation Capacity required to be planned during 2009-10 to 2013-14	8715
2	Capacity planned during 2009-10 to 2013-14	1678
3	Capacity added during 2009-10 to 2013-14	1355
4	Shortfall in planned capacity addition {(Row:2-3)*100/Row:2}	323 (19%)
5	Shortfall in capacity as of March 2014 {(Row:1-3)*100/Row:1}	7360 (84%)

*Source : Information furnished by the PuVVNL*

It may be seen from above table that:

- Against required capacity addition of 8715 MVA to be planned and added, PuVVNL planned and added the capacity of 1678 MVA and 1355 MVA respectively during 2009-10 to 2013-14. Resultantly, there was a shortage of 7360 MVA (84 per cent) in transformation capacity of PuVVNL (March2014) due to inadequate planning. The reason for inadequate planning was attributed to ad-hoc basis planning made by PuVVNL instead of preparation of integrated annual plan.
- Further, PuVVNL failed to achieve the planned capacity addition of 1678 MVA resulting in shortfall of 323 MVA (19 percent) during 2009-10 to 2013-14. Reasons for above shortfall could not be pointed out as PuVVNL did not furnish related information in detail.

Management stated (December 2014) that planning for construction of SS and line had been made under different schemes to achieve 80 per cent transformation capacity as target. The facts remained that PuVVNL could not achieve its own plan.

***Award of works contract***

**2.2.47** As discussed in paragraph 2.2.8, the irregularities noticed in award of works contracts are discussed in succeeding paragraphs:

***Award of higher package rate***

**2.2.48** As discussed in paragraph 2.2.10, non-analysis of the rates led to excess expenditure of ₹ 3.34 crore incurred on repair of 10952 DTs during 2009-10 to 2013-14.

***Excess payment of VAT on HV/LV coils***

**2.2.49** As discussed in paragraph 2.2.11, non-protest against the decision of the Commissioner, Trade Tax led to avoidable payment of on account of VAT ₹ 6.13 crore to the repairer-firms at higher rates<sup>41</sup> during 2009-10 to 2013-14.

**Operational Efficiencies**

Cases impacting the operational efficiency are discussed below:

***Sub -transmission and Distribution Losses***

**2.2.50** As discussed in paragraph 2.2.13, the position of energy available for sale vis-à-vis energy billed and the T&C losses incurred by PuVVNL as well as target of losses fixed by UPERC is depicted in table 2.2.15

**Table-2.2.15**

SL. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14 (Provisional)
1	2	3	4	5	6	7
1.	Energy purchased	12701	14012	15704	16034	13830
2.	Energy sold	9597	10442	11590	11920	10448
3.	Energy losses (1 – 2)	3104	3570	4114	4114	3382
4.	Percentage of energy losses $\{(3 / 1) \times 100\}$	24.44	25.48	26.20	25.66	24.45
5.	Target of losses fixed by UPERC (in percent)	22.50	25.48	26.53	24.53	22
6.	Excess losses (in MUs)	246.40	NIL	NIL	181.18	338.84
7.	Average realisation rate per unit (in ₹) <sup>42</sup>	3.59	NA	NA	4.25	4.25 <sup>43</sup>
8.	Value of excess losses (₹ in crore) (6 x 7)	88.46	NA	NA	77.00	144.00

*Source: Information furnished by PuVVNL*

It may be seen from above table that the T&C losses were within the target fixed by UPERC during 2010-11 and 2011-12 and in excess of the targets in remaining three years resulting in loss of energy of 766.42 MUs valuing ₹ 309.46 crore . We noticed that the reasons of above excessive losses were attributed to non-conversion of the LT into HT system and non- installation of

<sup>41</sup> 2009-10: 13 per cent, 2010-11 to 2012-13: 13.5 per cent and 2013-14: 14 per cent.

<sup>42</sup> Revenue from Sale of Power (including revenue subsidy)/Net Power Sold.

<sup>43</sup> Calculated as per average realisation rate per unit of 2012-13

Capacitor Banks at SSs, as discussed in succeeding paragraphs 2.2.51 and 2.2.52.

***Non- conversion of Low Tension (LT) into High Tension (HT)system***

**2.2.51** As discussed in paragraph 2.2.14, there were 1.16 lakh KMs of HT line and 3.69 lakh KMs of LT lines in the beginning of 2009-10. PuVVNL constructed 13798 Kms of HT line (12 *per cent*) against the target of 13798 Kms of HT lines and 10478 KMs of LT line (2.84 *per cent*) against the target of 10478 Kms of LT lines during 2009-10 to 2013-14. This indicated that the focus of PuVVNL was not on avoiding the LT system.

***Non-installation of Capacitor Banks***

**2.2.52** As discussed in paragraph 2.2.15, due to non-installation of CBs of 740.64 MVAR<sup>44</sup> capacity, the PuVVNL could not save loss of energy worth ₹ 15.37 crore per annum as detailed in **Annexure-2.2.4**.

Management accepted (December 2014) the audit observation and stated that works and activities of improvement were undertaken to achieve better performance.

**Billing and collection efficiency**

Irregularities relating to billing are discussed in succeeding paragraphs:

**Short/Excess billing**

**2.2.53** As discussed in paragraph 2.2.18, inadmissible allowance of load factor rebate and incorrect application of demand charges and energy charges led to short billing of ₹ 1.02 crore (**Annexure-2.2.5**). Further, levy of LT surcharge/power factor surcharge, wrong enforcement of protective load charges, incorrect application of Tariff order of October 2012 and levy of ED on consumers being exempted from such ED led to excess billing of ₹ 1.58 crore (**Annexure-2.2.10**).

**Excessive bill revisions**

**2.2.54** As discussed in paragraph 2.2.19, PuVVNL revised bills of 8413 consumers<sup>45</sup> from ₹ 5.55 crore to ₹ 1.18 crore and waived off ₹ 4.37 crore in 2013-14, as detailed in **Annexure-2.2.6**. Percentages of revision in individually billed amount ranged between 9.79 *per cent* and 95.09 *per cent*. This led to delay in realisation of due amount of revenue.

Management accepted the audit observation and stated (December 2014) that bill revision was a regular process. However, action was being taken to control the excess/wrong billing at the division level. Reply is not acceptable as revision in billed amount to the extent of 95 *per cent* was indicative of incorrect billing, which needed control.

**Revenue collection efficiency**

Irregularities noticed relating to revenue collection efficiency are given below:

**Ineffective realisation of dues**

**2.2.55** As discussed in paragraph 2.2.21, the position of outstanding dues and realization there against is depicted in table-2.2.16.

<sup>44</sup> 2.4 MVAR X 1543 MVA/5.

<sup>45</sup> Consumers of LMV-1, 2, 4, 5 and 6 categories

**Table-2.2.16**

(₹ in crore)

Sl. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3		4	5	6
1	Balance outstanding at the beginning of the year	9295	9486	10175	11032	11983
2	Revenue assessed/billed during the year	2620	3239	3613	4035	5079
3	Total amount due for realization (1+2)	11915	12725	13788	15067	17062
4	Amount realised during the year	2060	2160	2446	2794	5785
5	Amount waived off during the year	368	390	310	290	1615
6	Balance outstanding at the end of the year	9487	10175	11032	11983	9662
7	Percentage of amount realised to total dues (4/3)	17.29	16.97	17.74	18.54	33.91

Source: Information furnished by the PuVVNL

It may be seen from above table that the outstanding dues of ₹ 9487 crore at the end of March 2010 increased to 9662 crore (1.84 per cent) at the end of March 2014. Collection efficiency though increased from 17.29 per cent to 33.91 per cent during the same period was indicative of ineffective realisation of dues by the PuVVNL. Further accumulation of dues at the end of 2013-14 despite implementation of One Time Settlement (OTS) scheme to clear the arrears during 2009-10 to 2013-14 indicated that special drives undertaken by PuVVNL could also not yield desired results.

### Consumer Satisfaction and Redressal of Grievances

Irregularities relating to issues of consumer satisfaction and redressal of grievances are discussed below:

#### Non-installation of meters

**2.2.56** As discussed in paragraph 2.2.24, the position of total consumers, metered consumers as well as unmetered consumers in PuVVNL is depicted in table 2.2.17.

**Table-2.2.17**

Year	Nos. of consumers	Metered consumers	Unmetered consumers	Percentage of unmetered consumers
1	2	3	4	5
2009-10	2912000	1253387	1658613	56.96
2010-11	3123000	1334503	1788497	57.27
2011-12	3314000	1437643	1876357	56.62
2012-13	3575000	1539168	2035832	56.95
2013-14	3810000	1587982	2222018	58.32

Source: Information furnished by the PuVVNL

It may be seen from above that the unmetered consumers stood at 56.96 per cent at the end of 2009-10, which increased to 58.32 per cent at the end of 2013-14.

We analysed the reason for prevalent unmetered consumers and in our test check of 14 out of 66 EDDs, found that PuVVNL had released 128930 connections to LMV-1 consumers and 15771 connections to LMV-5 consumers during 2010-14 without installation of meters. We further noticed



that meters on above connections were not installed even after getting deposit of meter charges amounting to ₹ 7.28 crore and ₹ 8.89 crore respectively from the consumers during 2010-14.

Management accepted the audit observation and stated (December 2014) that supply of electricity without installation of meters was due to non-availability of meters and lack of manpower to install the meters.

#### ***Failure in timely establishment of Central Call Centres***

**2.2.57** As discussed in paragraph 2.2.25, there were two cities namely Varanasi and Allahabad having population exceeding 10 lakh, wherein CCCs were required to be established by PuVVNL.

We noticed that PuVVNL established one CCC in Varanasi in 2012 with a delay of seven years, the reason for such delay was not found on records. Further, the case of redressal of complaints of consumers could not be pointed out as PuVVNL did not furnish the related information.

#### **Non-production of records**

**2.2.58** Records relating to works executed along with pending liability against agreements<sup>46</sup> to verify the adjustment of ₹ 5.50 crore given to J.P. Infratech by DVVNL and Computerised Billing Data for the year 2013-14 by MVVNL, DVVNL and PuVVNL were not produced to audit.

#### **Conclusion**

**On the basis of Performance Audit of DISCOMs, we conclude that:**

- **There was shortage of 77 per cent, 66 per cent and 84 per cent in transformation capacity as of March 2014 in MVVNL, DVVNL and PuVVNL respectively due to inadequate planning/non-planning for capacity addition. Resultantly, the transformation capacity of DISCOMs was running overloaded. Further, the planned capacity addition was achieved short by 24 per cent and 19 per cent by MVVNL and PuVVNL respectively**
- **Award of higher package rate to the repairer firms led to excess expenditure of ₹ 17.08 crore on repair of distribution transformers (DTs). Further, DISCOMs made excess payment of ₹ 17.48 crore on account of VAT on the repair of DTs;**
- **Technical & Commercial (T&C) losses ranged from 22.64 to 28.02 per cent, 21 to 34.60 per cent and 24 to 26 per cent during 2010-14 in MVVNL, DVVNL and PuVVNL respectively. DISCOMs failed to improve their operational efficiency by restricting the T&C losses within the limit prescribed by UPERC. The losses beyond such limit were valued at ₹ 1446.83 crore. DISCOMs also failed to save energy valuing ₹ 47.81 crore due to non-installation of Capacitor Banks; and**
- **DISCOMs failed to bill the consumers as per applicable provisions which resulted into short billing of ₹ 102.23 crore and excess billing of ₹ 14 crore.**

<sup>46</sup> JSP Construction Company Ghaziabad, Febico Company Meerut, Singh and Singh Company, Mathura, Ayushman Construction and Kishor Traders Agra.