

CHAPTER 7

FINANCIAL STATEMENTS OF ELECTRICITY COMPANIES

BASIC CONCEPTS

- The Electricity Bill 2003 replaces the three existing legislations, namely, Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998.
- Under the Act 2003, activities like generation, transmission and distribution have been separately identified.
- The Central Electricity Regulation Commission (CERC) regulate the tariff of generating companies owned or controlled by the Central Government; It also regulates and determines the tariff for Inter-State transmission of electricity;
- No depreciation is to be written off when an asset has been written down to 10 per cent of original cost.

Question 1

Reasonable returns in electricity supply companies

(November, 2000 & May, 2007)

Answer

The law seeks to prevent an electricity undertaking from earning too high a profit. For this purpose, “reasonable return” has been defined as consisting of :

- (a) An yield at the standard rate which is Reserve Bank rate plus two percent on the capital base as defined below;
- (b) Income derived from investment except investment made against Contingencies Reserve;
- (c) An amount equal to 1/2% on loans advanced by the Electricity Board;
- (d) An amount equal to 1/2% on the amounts borrowed from organisations or institutions approved by the State Government;
- (e) An amount equal to 1/2% on the amount raised by the issue of debentures;
- (f) An amount equal to 1/2% on balance of Development Reserve; and

- (g) Such other amounts as may be allowed by the Central Government having regard to the prevailing tax structure in the country.

The term "Capital Base" used above can be defined as:

- (a) the original cost of fixed assets available for use and necessary for the purpose of the undertaking less contributions, if any made by the consumers for construction of service lines and also amounts written off;
- (b) the cost of intangible assets;
- (c) the original cost of work in progress;
- (d) the amount of investments compulsorily made against contingencies reserve; and
- (e) the monthly average of the stores, materials, supplies and cash and bank balances held at the end of each month of the year of account not exceeding in the aggregate an amount equal to one quarter of the expenditure.

Less:

- (i) the amount written off or set aside on account of depreciation of fixed assets and amounts written off in respect of intangible assets in the books of the undertaking;
- (ii) the amount of any loans advanced by the Board;
- (iii) the amount of any loans borrowed from organisations or institutions approved by the State Government;
- (iv) the amount of any debentures issued by the licensee;
- (v) the amount of security deposits held in cash;
- (vi) the amount standing to the credit of the Tariffs and Dividends Control Reserve;
- (vii) the amount set apart for the development reserve; and
- (viii) the amount carried forward in the accounts of the licensee for distribution to the consumers.

Question 2

Electric Supply Ltd. rebuilt and re-equipped one of their Mains at a Cash Cost of ₹ 40,00,000. The old Mains thus superseded cost ₹ 15,00,000. The capacity of the new Main is double that of the old Main.

₹ 70,000 was realised from sale of old materials. Four old motors valued at ₹ 2,00,000 salvaged from the old Main were used in the reconstruction. The cost of Labour and Materials is respectively 30% and 25% higher now than when the old Main was built. The proportion of Labour to Materials in the Main then and now is 2 : 3.

Show the Journal entries for recording the above transactions.

(November, 1999)

Answer

Electric Supply Ltd.
Journal Entries

		<i>Dr.</i>	<i>Cr.</i>
		₹	₹
New Main Account	Dr.	20,95,000	
Replacement Account	Dr.	19,05,000	
To Bank Account			40,00,000
(Being current cost of replacement charged to re-placement account and the balance amount capitalised)			
New Main Account	Dr.	2,00,000	
To Replacement Account			2,00,000
(Being the value of motors salvaged from old main used in the reconstruction of main)			
Bank Account	Dr.	70,000	
To Replacement Account			70,000
(Being the amount realised from sale of old materials credited to replacement account)			
Revenue Account	Dr.	16,35,000	
To Replacement Account			16,35,000
(Being the net current cost of replacement transferred to revenue account)			

Working Notes:**1. Current cost of replacement**

	<i>Cost of existing main</i>	<i>Increase in cost</i>		<i>Current cost</i>
		<i>Rate</i>	<i>Amount</i>	
	₹		₹	₹
Materials ($3/5 \times ₹ 15$ lacs)	9,00,000	25%	2,25,000	11,25,000
Labour ($2/5 \times ₹ 15$ lacs)	6,00,000	30%	1,80,000	<u>7,80,000</u>
Estimated current cost for replacement of present main (amount to be charged to replacement account)				<u>19,05,000</u>

2. Additional cost of reconstruction of main (to be capitalised)

	₹
Cash cost of re-building new main	40,00,000
Less: Estimated current cost for replacement of existing old main	<u>19,05,000</u>
Additional cost in new main to be capitalised (excluding old motors used)	<u>20,95,000</u>

3. Replacement Account

	₹		₹
To Bank A/c	19,05,000	By New Main A/c	2,00,000
		By Bank A/c	70,000
		By Replacement A/c	
		Balancing figure	<u>16,35,000</u>
	<u>19,05,000</u>		<u>19,05,000</u>

Question 3

Power Electric Company decides to replace one of its old plant to an improved plant with larger capacity. The cost of the new plant is ₹ 16,00,000.

Materials and Labour earlier and now are in the ratio of 4 : 6.

Original cost of the old plant is ₹ 3,00,000. Materials cost has gone up by 2½ times and Labour cost upto 3 times since then. Old materials worth ₹ 10,000 were used in the construction of the new plant and ₹ 20,000 were realised from the sale of old materials.

Give the necessary Journal Entries for recording the above transactions. **(November, 2004)**

Answer

Journal Entries

Particulars	Dr.	Cr.
	Amount	Amount
	₹	₹
Plant account Dr.	7,70,000	
To Bank account		7,60,000
To Replacement account		10,000
(Being the additional cost incurred and old materials utilized in new plant)		
Replacement account Dr.	8,40,000	
To Bank account		8,40,000
(Being the current cost of replacement)		

Bank account	Dr.	20,000	
To Replacement account			20,000
(Being the old materials sold)			
Revenue account	Dr.	8,10,000	
To Replacement account			8,10,000
(Being the balance of replacement account transferred to revenue account)			

Working Note:

Old cost of the plant ₹ 3,00,000:

$$\text{Material} = 3,00,000 \times \frac{4}{10} = 1,20,000$$

$$\text{Labour} = 3,00,000 \times \frac{6}{10} = 1,80,000$$

		₹
Cost of materials increased by 250% = $1,20,000 \times 250\%$		3,00,000
Cost of labour increased by 300% = $1,80,000 \times 300\%$		<u>5,40,000</u>
Current cost of replacing old plant		8,40,000
Less: Sale of old materials	20,000	
Old materials utilized in new plant	<u>10,000</u>	<u>30,000</u>
Amount to be transferred to Revenue account		<u>8,10,000</u>
 Cash cost of the new plant		16,00,000*
Add: Old materials utilized		<u>10,000</u>
		16,10,000
Less: Current cost of replacing old plant		<u>8,40,000</u>
Amount to be capitalized		<u>7,70,000</u>

* The cost of new plant has been given as ₹ 16,00,000 in the question. It has been assumed in the above solution that this cost does not include the cost of old materials used in the construction of new plant worth ₹ 10,000.

Question 4

X Electricity Company Limited decides to replace one of its old plants with a modern one in April, 2011. The plant when installed in the year 2005, costed the company ₹ 26 lakhs, the components of materials and labour being in the ratio of 7:3. It is ascertained that the cost of

labour and materials have risen by 30% and 25% respectively. The cost of new plant is ₹ 66 lakhs and in addition old materials worth ₹ 92,000 are reused. Old materials worth ₹ 1,68,000 are sold. Under double account system compute the following:

(i) The amount to be written off to Revenue A/c.

(ii) The amount to be capitalized.

(iii) Draw up the necessary Journal entries.

(iv) Draw up the Replacement Account.

(May, 2007)

Answer

(i) Statement showing amount to be written off to Revenue Account

		₹
Cost of old plant		26,00,000
Add:		4,55,000
	Increase in cost of material $26,00,000 \times \frac{7}{10} \times \frac{25}{100}$	
	Increase in cost of Labour $26,00,000 \times \frac{3}{10} \times \frac{30}{100}$	<u>2,34,000</u>
	Current cost of old plant	32,89,000
Less:		
	Cost of Material used 92,000	
	Cost of Material sold <u>1,68,000</u>	<u>(2,60,000)</u>
Amount to be written off to Revenue A/c		<u>30,29,000</u>

(ii) Statement showing amount to be capitalised

	₹
Cost of new plant excluding the value of old materials used	66,00,000
Less: Current cost of old plant	<u>(32,89,000)</u>
Current cost to be capitalized	33,11,000
Add: Value of old material used	<u>92,000</u>
Total amount to be capitalized	<u>34,03,000</u>

(iii) Journal Entries in the books of X Electricity Company Ltd.

		₹	₹
(a)	Replacement Account Dr. To Bank Account (Being the replacement of old plant by a new plant; the current cost of replacement ₹ 32,89,000)	32,89,000	32,89,000

(b)	Plant Account Dr.	34,03,000	
	To Replacement Account		92,000
	To Bank Account		33,11,000
	(Being additional cost of new plant capitalized and also old materials used in construction of new plant)		
(c)	Bank Account Dr.	1,68,000	
	To Replacement A/c		1,68,000
	(Being the sale of old materials for ₹ 1,68,000)		
(d)	Revenue A/c Dr.	30,29,000	
	To Replacement Account		30,29,000
	(Being the balance of replacement account transferred to revenue account)		

(iv) Replacement Account

	₹		₹
To Bank A/c	32,89,000	By New Plant A/c	92,000
		By Bank A/c	1,68,000
		By Revenue A/c (Bal.fig.)	<u>30,29,000</u>
	<u>32,89,000</u>		<u>32,89,000</u>

Question 5

'H' Electricity Company earned a profit of ₹ 60,00,000 (after tax) after paying ₹ 48,000 at 12% interest on debentures for the year ended 31.3.2011. The following further information is supplied to you:

	₹
Share Capital	2,50,00,000
Reserve Fund Investment (invested in 8% Government Securities at par)	60,00,000
Contingencies Reserve Fund Investment (7%)	25,00,000
Loan from State Electricity Board	50,00,000
Development Reserve	16,00,000
Fixed Assets	6,00,00,000
Depreciation Reserve on Fixed Assets	60,00,000
Security Deposits of customers	80,00,000
Amount contributed by consumers towards cost of Fixed Assets	4,50,000
Intangible Assets	17,50,000
Tariffs and Dividends Control Reserve	22,00,000
Monthly average of Current Assets including amount due from customers	36,00,000
₹ 5,00,000	

Show, how the profits of the company will be dealt with under the provisions of the Electricity Act, assuming the bank rate of the year was 8%. All working notes should form part of your answer.
(November, 2007)

Answer**'H' Electricity Company****Statement of Distribution of Profit for the year ended 31.3.2011**

Capital Base	₹	₹
Fixed Assets as reduced by customers contribution (6,00,00,000 – 4,50,000)	5,95,50,000	
Intangible Assets	17,50,000	
Monthly average of Current Assets (Excluding amount due from customers i.e. 36,00,000 – 5,00,000)	31,00,000	
Contingencies Reserve Fund Investment	<u>25,00,000</u>	6,69,00,000
<i>Deduct:</i>		
Depreciation Reserve	60,00,000	
Loan from Electricity Board	50,00,000	
12% Debentures ($48,000 \times \frac{100}{12}$)	4,00,000	
Development Reserve	16,00,000	
Security Deposits of Customers	80,00,000	
Tariffs and Dividends Control Reserve	<u>22,00,000</u>	<u>2,32,00,000</u>
Capital Base		<u>4,37,00,000</u>

Reasonable Return

	₹
10% (Bank Rate + 2%) on Capital Base	43,70,000
8% on Reserve Fund Investment	4,80,000
½% on Loan from Electricity Board	25,000
½% on Debentures	2,000
½% on Development Reserve	<u>8,000</u>
Reasonable Return	<u>48,85,000</u>

Surplus and its Disposal

	₹
Clear Profit	<u>60,00,000</u>
Surplus (₹ 60,00,000 – ₹ 48,85,000)	11,15,000
Less: 20% of Reasonable Return (to be disposed off)	<u>9,77,000</u>
Amount refundable to consumers	<u>1,38,000</u>

Disposal of Surplus of ₹ 9,77,000

	₹
(i) $\frac{1}{3}$ of surplus over clear profit limited to 5% of reasonable return will be at the disposal of the company i.e. ₹ 3,71,667 > ₹ 2,44,250	2,44,250
(ii) Credit to Tariffs and Dividends Control Reserve (1/2 of remaining balance of 20% of Reasonable Return)	3,66,375
(iii) Credit to Consumers' Suspense Account	<u>3,66,375</u>
	<u>9,77,000</u>

Total amount at the disposal of the company

	₹
(a) Amount of reasonable return	48,85,000
(b) Share in surplus	<u>2,44,250</u>
	<u>51,29,250</u>

Total amount refunded to consumers

	₹
(a) Surplus in excess of 20% of reasonable return	1,38,000
(b) Share in surplus	<u>3,66,375</u>
	<u>5,04,375</u>

Question 6

The Maduri Municipal Corporation replaces part of its existing water mains with larger mains at the cost of ₹ 1,50,00,000. The original cost of laying the old main was ₹ 30,00,000 and the present cost of laying those mains would be three times the original cost. Calculate the amount to be capitalized.

(May, 2010)

Answer

Calculation of amount to be capitalised

	₹
Total cost of new Main	1,50,00,000
Less : Estimated present cost of replacement (₹ 30,00,000 x 3)	<u>(90,00,000)</u>
Amount to be capitalized	<u>60,00,000</u>

Question 7

The following balances have been extracted at the end of March, 2010, from the books of an electricity company:

	₹		₹
Share capital	4,00,00,000	Consumer deposit	1,60,00,000
Fixed assets	10,00,00,000	Tariffs and dividend control reserve	40,00,000
Depreciation reserve on fixed assets	1,20,00,000	Development reserve	32,00,000
Reserve fund (invested in 8% Government securities at par)	2,40,00,000	12% Debentures	80,00,000
Contingency reserve invested in 7% state loan	48,00,000	Loan from State Electricity Board	1,00,00,000
Amount contributed by consumers towards cost of fixed asset	8,00,000	Intangible assets	32,00,000
		Current assets (monthly average)	60,00,000

The company earned a profit of ₹ 1,12,00,000 (after tax in 2009-2010). Show how the profits have to be dealt with by the company assuming the bank rate was 10%. All workings should form part of your answer.

(May, 2010)

Answer

1. Calculation of capital base

	₹	₹
Fixed assets	10,00,00,000	
Less : Consumers' contribution towards fixed assets	<u>(8,00,000)</u>	9,92,00,000
Intangible assets		32,00,000
Current assets (monthly average)		60,00,000
Investment against contingency reserve		<u>48,00,000</u>
		11,32,00,000

Less: Depreciation reserve	(1,20,00,000)	
Loan from State Electricity Board	(1,00,00,000)	
12% Debentures	(80,00,000)	
Development reserve	(32,00,000)	
Consumers' deposit	(1,60,00,000)	
Tariffs and dividend control reserve	<u>(40,00,000)</u>	<u>(5,32,00,000)</u>
Capital base		<u>6,00,00,000</u>

2. Calculation of reasonable return

	₹
12% [i.e. bank rate 10% + 2%] on ₹ 6,00,00,000	72,00,000
8% on Reserve fund investment [8% on ₹ 2,40,00,000]	19,20,000
½ % on Loan from State Electricity Board [½% on ₹ 1,00,00,000]	50,000
½ % on Debentures [½ % on ₹ 80,00,000]	40,000
½ % on Development reserve [½% on ₹ 32,00,000]	<u>16,000</u>
Reasonable return	<u>92,26,000</u>

3. Statement showing calculation of surplus

	₹
Clear profit	1,12,00,000
Less: Reasonable return	<u>(92,26,000)</u>
Surplus	19,74,000
Less: 20% of reasonable return	<u>(18,45,200)</u>
Balance credited to consumers' benefit account	<u>1,28,800</u>

4. Statement showing disposal of surplus

	₹
Allocation of surplus upto 20% reasonable return	18,45,200
Less: 1/3 of ₹ 18,45,200 i.e. ₹ 6,15,066 limited to 5% of reasonable return (i.e. 5% of ₹ 92,26,000) at the disposal of the company	<u>(4,61,300)</u>
	13,83,900
1/2 of the balance credited to Tariffs and Dividend Control Reserve	<u>(6,91,950)</u>
Balance credited to consumer's benefit account	<u>6,91,950</u>

5. Statement showing disposal of profit

	₹
Amount at the disposal of the company (₹ 92,26,000 + ₹ 4,61,300)	96,87,300
Amount to be credited to Consumer's Benefit Account (₹ 1,28,800 + ₹ 6,91,950)	8,20,750
Amount to be transferred to Tariffs and Dividend Control Reserve	<u>6,91,950</u>
	<u>1,12,00,000</u>

Question 8

The M. Water Works Company Limited decides to replace one of its old plants with a modern one and large capacity. The cost of plant when installed in 1985 was ₹ 48 lakhs. The components of materials, labour and overheads are in the ratio of 5: 3: 2. It is ascertained that the costs of materials and labour have gone up by 40 percent and 80 percent respectively. The proportion of overheads to total cost is expected to remain the same as before.

The cost of the new plant as per improved design is ₹ 120 lakhs and in addition, material recovered from the old plant of a value of ₹ 4,80,000 has been used in the construction of the new plant. The old plant was scrapped and sold for ₹ 15,00,000.

Show the Journal Entries and Ledger Accounts in the books of M. Water Works Company Ltd.

(June, 2009)

Answer

Journal Entries

			₹	₹
(i)	Plant Account	Dr.	45,60,000	
	Replacement Account	Dr.	74,40,000	
	To Bank Account			120,00,000
	(Cash cost of replacement of plant divided into current cost and capital cost)			
(ii)	Plant Account	Dr.	4,80,000	
	To Replacement Account			4,80,000
	(Old material reused in the construction of new plant)			
(iii)	Bank Account	Dr.	15,00,000	
	To Replacement Account			15,00,000
	(Amount realized on sale of the old plant)			

(iv)	Revenue Account	Dr.	54,60,000	
	To Replacement Account (Balance of replacement account transferred to revenue account)			54,60,000

Plant Account

<i>Particulars</i>	<i>Amount (₹)</i>	<i>Particulars</i>	<i>Amount (₹)</i>
To Balance b/d	48,00,000	By Balance c/d	98,40,000
To Bank Account (Cost of new plant capitalised)	45,60,000		
To Replacement Account (Old Plant)	<u>4,80,000</u>		
	<u>98,40,000</u>		<u>98,40,000</u>

Replacement Account

<i>Particulars</i>	<i>Amount (₹)</i>	<i>Particulars</i>	<i>Amount (₹)</i>
To Bank Account (Current cost)	74,40,000	By Bank Account	15,00,000
		By Plant Account	4,80,000
		By Revenue Account	<u>54,60,000</u>
	<u>74,40,000</u>		<u>74,40,000</u>

Working Notes:

(1)	Calculation of Current replacement cost				
		Ratio	Existing Cost	Increase percentage	Current Cost
			₹		₹
	Material	50%	24,00,000	40%	33,60,000
	Labour	30%	14,40,000	80%	<u>25,92,000</u>
					59,52,000
	Overhead	20%	<u>9,60,000</u>	(Being 25% Material & Labour 1/5 of Total cost)	<u>14,88,000</u>
			<u>48,00,000</u>		<u>74,40,000</u>
	Current cost of replacement				= ₹ 74,40,000

(2)	Capital Cost	₹
	Total cash cost	1,20,00,000
	Add: Old material used	<u>4,80,000</u>
		1,24,80,000
	Less: Current cost of old plant	<u>74,40,000</u>
	Total capital cost	<u>50,40,000</u>

Question 9

Moon Tara Electricity Company provides you the following information:

Particulars	(₹ in lakhs)
Fixed Assets (Cost)	200
Depreciation Reserve on Fixed Assets	50
Customer's contribution towards Fixed Assets	1
Intangible Assets	6
Intangible Assets written-off	1
Average of Current Assets (Including Debtors worth ₹ 2 lakhs)	22
5% Contingency Reserve Investments	10
4.5% Reserve Fund Investments	50
Loans from Electricity Board	30
Loans from Approved Institutions	10
8% Debentures	20
Development Reserve	10
Security Deposit	55
Tariff and dividend Control Reserve	4
Licensee's A/c	1
Net Profit before interest on Debentures for the year ended March 31, 2010	8.88
Reserve Bank Rate	5%

Required, to calculate:

- (i) Capital Base
- (ii) Reasonable Return
- (iii) Surplus and statement showing the disposal of profits
- (iv) Statement showing disposal of surplus.
- (v) Taxation may be ignored.

(May, 2010)

Answer**(i) Capital Base**

		(₹ in lakhs)
Original cost of Fixed Assets	200	
Less: Customer's Contribution	<u>(1)</u>	199
Cost of Intangible Assets		6
Average of Current Assets	22	
Less: Debtors	<u>(2)</u>	20
Contingencies Reserve Investments		<u>10</u>
		235
Less: Depreciation Reserve	50	
Intangible assets written off	1	
Loans from Electricity Board	30	
Loans from Approved Institutions	10	
8% Debentures	20	
Development Reserve	10	
Security Deposits	55	
Tariff and Dividend Control Reserve	4	
Licensee's A/c	<u>1</u>	<u>181</u>
Capital Base		<u>54</u>

(ii) Reasonable Return

	(₹ in lakhs)
7%* of Capital Base (54 x 7%)	3.78
½% on Loans from Electricity Board (30 x 0.50%)	0.15
½ % on Loans from Approved Institutions (10 x 0.50%)	0.05
½% on Debentures (20 x 0.50%)	0.10
½% on Development Reserve (10 x 0.50%)	0.05
Income from Reserve Fund Investments (50 x 4.50%)	<u>2.25</u>
Reasonable Return	<u>6.38</u>

* Reserve Bank Rate i.e. 5% + 2% = 7%.

(iii) (a) **Surplus**

	(₹ in lakhs)
Clear Profit (before Debenture Interest)	8.88
Less: Debenture Interest @ 8%	<u>(1.60)</u>
Clear Profit after Debenture Interest	7.28
Less: Reasonable Return	<u>(6.38)</u>
Surplus	<u>0.90</u>

(b) **Statement showing Disposal of Profit**

	(₹ in lakhs)
Tariff & Dividend Control Reserve	0.30
Consumer Rebate & Reserve	0.30
At the disposal of the undertaking [6.38 + 0.30 (See note (iv))]	<u>6.68</u>
	<u>7.28</u>

(iv) **Statement showing disposal of Surplus:**

	(₹ in lakhs)
1/3 of such surplus not exceeding 5% of Reasonable Return (R.R.) is at the disposal of an undertaking i.e. $1/3 \text{ of } 0.90 = 0.30$	
5% of R.R. = <u>0.319</u>	0.30
$1/2$ of the balance viz. $[0.90 - 0.30]$ transferred to Tariff & Dividend Control Reserve	0.30
$1/2$ of the balance viz $[0.90 - 0.30]$ transferred to Consumer Rebate & Reserve	<u>0.30</u>
Total Surplus	<u>0.90</u>

Question 10

ABC Electricity Company laid down a main at a cost of ₹ 24,00,000. Some years later the company replaced by improving the plant $2/3$ portion of the main at a cost of ₹ 40,00,000. The cost of material and labour having gone up by 25%. Sale of old material realised ₹ 95,000. Old material value ₹ 1,05,000 were used in renewal (including in above).

Calculate the amount to be capitalised and show the journal entries for recording the transaction.
(May, 2010)

Answer**Statement showing amount to be capitalised**

	₹
Cash cost of building new main	38,95,000
Add: Value of old material used in the construction of new main	<u>1,05,000</u>
	40,00,000
Less: Estimated current cost of replacing old plant (Refer W.N.)	<u>(20,00,000)</u>
Total amount to be capitalized	<u>20,00,000</u>

In the books of ABC Electricity Company**Journal Entries**

	₹	₹
Replacement A/c Dr. To Bank (Being current cost of replacement)	20,00,000	20,00,000
New Main A/c Dr. To Bank To Replacement (Being additional cost of New Main to be capitalised)	20,00,000	18,95,000 1,05,000
Bank A/c Dr. To Replacement (Being the sale of old materials)	95,000	95,000
Revenue A/c (Refer W.N.) Dr. To Replacement (Being the replacement cost to be written off to revenue)	18,00,000	18,00,000

Working Note:**Statement showing amount to be written off to Revenue Account**

	₹
Cost of old plant	<u>24,00,000</u>
Replacement of 2/3 portion of old plant ($\text{₹ } 24,00,000 \times \frac{2}{3}$)	16,00,000
Add: 25% increase in cost of material and labour	<u>4,00,000</u>

Current cost of old plant		20,00,000
Less: Cost of material used	1,05,000	
Cost of material sold	<u>95,000</u>	<u>(2,00,000)</u>
Amount to be written off to Revenue A/c		<u>18,00,000</u>

Question 11

The Super Electricity Company maintains accounts under the Double Accounts System. It decides to replace one of its old plant with a technologically advanced plant with a larger capacity. The plant when installed in 2000, cost the company ₹ 90,00,000, the components of materials, labour and overheads being in the ratio 5 : 3 : 2.

It is ascertained that the costs of materials has gone up to 200% and the cost of labour has gone up to 300%. The proportion of material, labour and overheads has changed to 10 : 9 : 6.

The cost of the new plant is ₹ 2,80,00,000 and in addition, goods worth ₹ 12,60,000 have been used in the construction of the new plant. The old plant was scrapped and sold for ₹ 19,00,000.

Find out the amount to be capitalized and also the amount to be charged to revenue. Draw the necessary Ledger Accounts. **(November, 2010)**

Answer

Table showing calculation of current cost of old plant

	Old ratio	Cost of existing plant ₹	Up to % increase	Current cost ₹	New Ratio
Material	5	45,00,000	200	90,00,000	10
Labour	3	27,00,000	300	81,00,000	9
Overhead	2	<u>18,00,000</u>		<u>54,00,000*</u>	<u>6</u>
Total		<u>90,00,000</u>		<u>2,25,00,000</u>	<u>25</u>

Amount to be capitalized

	₹
Cost of new plant (cash)	2,80,00,000
Add: Cost of old material used	<u>12,60,000</u>

$$\text{* Current cost of overhead} = \frac{(90,00,000 + 81,00,000)}{\left(\frac{10+9}{10+9+6}\right)} \times \frac{6}{25} = ₹ 54,00,000$$

		2,92,60,000
Less: Estimated current cost of replacing old plant		<u>(2,25,00,000)</u>
Amount to be capitalized		<u>67,60,000</u>
Amount to be charged to Revenue A/c		
Estimated current cost of replacement		2,25,00,000
Less : Cash on sale of scrap	19,00,000	
Less : Old material reused	<u>12,60,000</u>	<u>(31,60,000)</u>
Amount to be charged to revenue		<u>1,93,40,000</u>

Super Electricity Company

Plant Account

Particulars	Amount ₹	Particulars	Amount ₹
To Balance b/d	90,00,000	By Balance c/d	1,57,60,000
To Bank A/c	55,00,000		
To Replacement A/c	<u>12,60,000</u>		
	<u>1,57,60,000</u>		<u>1,57,60,000</u>

Replacement Account

	₹		
To Bank A/c	2,25,00,000	By Bank A/c	19,00,000
		By Plant A/c	12,60,000
		By Revenue A/c	<u>1,93,40,000</u>
	<u>2,25,00,000</u>		<u>2,25,00,000</u>