Financial Statement of Electricity Companies **(NEW)**
(IPCC Gr-II)

Important Changes:

The earlier syllabus (study material of ICAI) included the following, in this chapter:

1. Final Accounts as per Double Account System which included Revenue A/c, Net Revenue A/c, Receipt & Expenditure on Capital A/c & General Balance Sheet.
2. Replacement of Asset as per Double Account System.
3. Disposal of surplus as per Electricity Rules.

Questions in the examination were usually framed on point 2 & 3 above.

Now in the latest study material Board of Studies has included in brief provisions / requirements as per Electricity Act, 2003 & Regulations 2004 & Regulations 2009.

Hence we can safely assume that hence forth the above areas namely Final Accounts & Replacement of Asset as per Double Account System & Disposal of Surplus as per Electricity rules stands omitted from syllabus & no questions will be asked on the same.

New Syllabus Summary

Final Accounts by a Electricity Company-

The Electricity Act, 2003 which governs Electricity Companies don't prescribe any format for preparation & presentation of Financial Statement hence Revised (New) Schedule VI of Companies Act should be followed (Clarified by ICAI in its Guidance Note on Revised Schedule VI).

Revised Schedule VI & solved examples on it have already been included in chapter on Financial statement of Companies, covered in your IPCC Gr-I Accounts Book.

Also see Illustration 5 & 6 given at the end.

The Electricity Act, 2003:

The Act has been enacted to replace Indian Electricity Act, 1910, The Electricity Supply Act, 1948, The Electricity Rules 1956 and the Electricity Regulatory commissions Act, 1998.

Licensing: No licence required for power generation except for hydro power projects over a certain size but licence is required to (a) transmit electricity, or (b) distribute electricity or (c) to do trading in electricity.

The authorities under the Act are (a) Central Electricity Authority (CEA) (b) Central Electricity Regulatory Commission & (c) State Electricity Regulatory Commission.

Tariffs: Tariffs are fixed by the appropriate commissions considering various factors including safeguarding interest of consumer and at the same time recovery of cost of electricity and providing a reasonable return on investment.

For tariff determination under the Act two regulations have been issued Regulation 2004 & Regulation 2009.

Some Important Accounting Aspects

Security Deposit

Electricity company can take suitable Security Deposit from consumers for supply of Electricity and/or for providing electric line, meter etc. This is refundable deposit.

Entry: Cash / Bank a/c Dr. --

To Security Deposit a/c --

This will be shown under non-current liability in Balance sheet.

Electricity company has to pay interest at Bank Rate or more (rate prevailing on 1st April of the year) on such deposit. Interest is accrued annually.

Entry: Interest Expense a/c Dr. --

To Interest Accrued on Security Deposit a/c --

This accrued interest will be adjusted against the consumers bill for the 1st quarter of next year.

Entry: Interest Accrued on Security Deposit a/c Dr. --

To Electricity Sale a/c --

Accrued interest will be shown under current liability in balance sheet.

Illustration.1. Security Deposit received from a Customer on 1.7.2010 Rs.1,00,000, RBI interest Rate on 1.4.10 was 8% & on 1.4.11 9%. Account this for the year 2010-11 & 2011-12

Solution 1] Accounting for Security Deposit & Interest on it

Journal Entries

	Particulars	Debit	Credit
	Year 2010 – 11		
1.7.2010	Bank A/c Dr.	1,00,000	
	To Security Deposit		1,00,000
	(Security deposit received from consumers)		
31.3.2011	Interest A/c Dr.	6,000	
	To Accrued interest A/c		6,000
	$\left(1,00,000 \times 8\% \times \frac{9}{12} = 6,000\right)$		
	(Interest accrued on Security deposit from consumers)		
	Year 2011-12		
30.06.2011	Accrued interest A/c Dr.	6,000	
	To Electricity Sale A/c		6,000
	(Accrued Interest on security deposit adjusted against electricity bills of consumers)		
31.3.2012	Interest A/c Dr.	9,000	
	To Accrued interest A/c		9,000
	$\left(1,00,000 \times 9\% \times \frac{12}{12} = 9,000\right)$		
	(Interest accrued on Security deposit from consumers)		
	Year 2012-13		
30.06.2012	Accrued Interest A/c Dr.	9,000	
	To Electricity Sale A/c		9,000
	(Accrued Interest on security deposit adjusted against electricity bills of consumers)		

Capital Service line contribution (Customers contribution for service line)

An Electricity company can collect such charges for providing electricity connection and/or transformers at new areas as per rules framed by State Electricity Regulatory Commission.

Entry: Cash / Bank a/c Dr. --

To Customers Contribution for service line --

This will be shown under capital reserve in Reserves & Surplus in the balancesheet.

This amount shall be amortised in profit and loss account in proportion to the depreciation provided on the concerned asset.

Entry: Customers Contribution for service line a/c Dr. --

To Profit & Loss a/c --

-Ishan Dalwadi
+919727163353

Accelerated Power Development and Reforms Program (APDRP):

Central government introduced this program to improve distribution network, reduce/avoid transmission & distribution losses, theft etc.

This has two components:

Investment Components: That is for capital expenditure purposes. It has grant & loan component.

In special category states, 100% of the project cost is provided, 90% in grant form and 10% in loan form.

In other states, 50% of the project cost is provided of which half (i.e. 25%) is grant and other half (i.e. 25%) is loan

Incentive component: This is provided to motivate states to reduce their cash losses (calculated with reference to base year of 2000-01). Upto 50% of cash loss reduction is provided and is in the form of grant.

Accounting for loan component: Loan component will be accounted as usually and will be treated as long term borrowings. Interest will be recognized at the applicable rates and will be treated as revenue expense.

Accounting for Grant Component: Grant under APDRP received as incentive component for reduction in cash los should be recognized in profit & loss account.

Entry: Bank a/c Dr. --
To Profit & Loss a/c (grant as incentive for reduction in cash losses) --

Grant received for capital expenditure shall be treated as capital receipt and should be shown under Capital Reserve in Reserves & Surplus in Balancesheet.

Entry Bank a/c Dr. --
To Capital Grant under APDRP a/c

This grant should be amortised to profit & loss account in proportion to the depreciation charged on the respective assets.

Entry Capital Grant under APDRP a/c Dr. --
To Profit & Loss a/c --

Note: In cash flow statement such grant & customers contribution for service line (as discussed earlier) shall be shown under financing activity.

Illustration.2. An Electricity company has incurred Capital Expenditure of Rs.100 lakhs having life of 10 years. This is partly financed as 40% of Cost contributed by consumer & 25% is grant from central government. Account this transactions & their amortization.

Solution 2] Amortisation of Consumers Contribution & Govt. grant for capital expenditure

Cost of Asset	100	Life: 10 year
(-) Salvage value	10	
Depreciable amount	90	
Depreciable p.a. $\left(\frac{90}{10}\right) = 9$		
Consumers Contribution	40	
Government grant	25	

Writ off / amortization of Consumers Contribution & Government grant in proportion to depreciation:

Consumers contribution $= \frac{40}{10}$ = 4 Lakh p.a.

Government grant $= \frac{25}{10}$ = 2.50 p.a.

Journal Entries

Particulars		Debit	Credit
Bank A/c	Dr.	65	
To Contribution from Consumer for service line A/c			40
To Government grant A/c			25
(For capital expenditure, 40% Contribution received from consumers and 25% grant from govt.)			
Plant & Machinery A/c	Dr.	100	
To Bank A/c			100
(Plant and machinery acquired)			

Every year – year 1 to 10			
Depreciation A/c	Dr.	9	
To Plant & Machinery / Depreciation Provision A/c			9
(Depreciation charged)			
Consumers Contribution A/c	Dr.	4	
Government grant A/c	Dr.	2.5	
To Profit & Loss A/c			6.5
(Consumers contribution and Govt. grant amortised in proportion to the depreciation charged on the concerned asset)			

Depreciation:

Regulation 2009 provides following with regard to the depreciation:

(i) Rates shall be determined by Central Electricity Regulatory Commission.

(ii) This rates shall be followed for tariff as well as for accounting.

(iii) Depreciation will be by SLM (Straight Line Method)

(iv) Salvage Value of at least 10% will be considered i.e. maximum 90% of the cost will be written off over the useful life of the asset.

(v) Depreciation will be charged on Historical Cost & not on Revalued value.

(vi) Depreciation will be charged on time proportion basis & will start when the asset is put to use

(vii) If allows optimized Depreciated Replacement Cost (ODRC) i.e. if asset is financed by loan component then depreciation equal to the principle loan repayment in each year will be provided until the repayment of loan, remaining depreciable balance thereafter will be written off over remaining useful life on SLM.

(viii) Commission has considered 12 years repayment period of loan& accordingly has given rates. After repayment of loan the balance depreciable value shall be divided over remaining useful life.

Summarised / Grouped Depreciation Rates

A.	Land → Owned	0%
B.	Land → Leased	3.34%
C.	Building & Civil Engineering works	3.34%
D.	Plant & Machinery in generating stations, Cooling tower & circulating water systems, Hydraulic works, Transformers, substation equipments, switchgear including Cable connections, Lightning arrestor, Batteries, overhead lines, Meters, AC plant-static, Street Light fittings, asset not covered anywhere else.	5.28%
E.	Office furniture, office Equipment, Internal wiring, Motors given on hire, Communication equipment	6.33%
F.	Self propelled vehicles, AC plant-portable, Apparatus on hire other than motors	9.50%
G.	I.T. equipments	15.00%
H.	Temporary erections such as wooden structures	100.00%

Debt Equity Ratio (For Tariff calculation)

AS per Regulations Debt equity Ratio of 70:30 i.e. 70% Debt & 30% Equity Should be considered for financing Capital Expenditure

-Ishan Dalwadi
+919727163353

Debt higher than 70% will be allowed. Higher equity can be allowed by Commission in certain cases.

In other cases equity above 30% shall be considered as notional loan & interest on that portion will be considered

Return on Equity will be allowed at 14%

Illustration.3. An Electricity company has acquired plant & machinery costing Rs.20 lakhs having useful life of 15 years. Calculate Depreciation.

Solution 3] Calculation of Depreciation:

Cost of Assets	20 lakhs
Life	15 years

Salvage value 10% as per regulation. The same is considered.

Cost of Asset	20
– Salvage value	2
Depreciable amount	18

Life 15 years

Depreciation p.a. $\frac{18}{15} = 1.20$ Lakhs

Illustration.4. An Electricity company has financed the project costing Rs.200 lakhs by 70% Debt & 30% Equity. Debt bearing 12% Interest is to be repaid in 10 equal annual installments. Life of Asset is 15 years. Considering that Electricity generation, distribution & other costs (excluding Depreciation & interest) are Rs.50 lakhs p.a. Calculate annual Revenue (Tariff) During the currency of loan & thereafter.

Solution 4] Tariff Calculation: Depreciation to create cash flow for loan repayment.

Cost of assets		200
Financed by: Debt	70%	140
Equity	30%	60

Loan repaid in 10 equal installment i.e. $\frac{140}{10}$ = 14 Lakhs p.a.

Cot of Asset	200
– Salvage Value 10%	20
Depreciable Value	180

Depreciation in 1st 10 years equal to the principle loan being repaid.

@14 x 10 years	140
Balance to be write off in year 11–15	40

$\therefore$ Depreciation p.a. $= \frac{40}{5}$ = 8 p.a. for year 11 to 15

Tariff (Revenues) Calculation

Particulars	During loan repayment term			Afterwards
	1st year	2nd year	10th year	11th – 15th year
Electricity generation, distribution & other costs	50.00	50.00	50.00	50.00
Interest on loan 1st year (140 x 12%) 2nd (140 – 14) x 12%, 3rd 14 x 12%	16.80	15.12	1.68	–
Depreciation	14.00	14.00	14.00	8.00
Return allowed on equity (60 x 14%)	8.40	8.40	8.40	8.40
Tariff / Revenues	89.20	87.52	74.08	66.40

-Ishan Dalwadi
+919727163353

Financial Statement of Electricity Company

Illustration.5: From the following balances as at 31st December, 2010, prepare the Revenue Account, Net Revenue Account, Capital Account and General Balance Sheet of GIP Power and Light Co. Ltd.

	Rs.		Rs.
Balance as on 1st January, 2010		Expenses of Management	14,400
Land	1,80,000	Cost of Distribution	6,000
Machinery	7,20,000	Depreciation	24,000
Mains	2,40,000	Sales of Current	1,56,000
Expenditure during the year		Meter Rent	6,000
Land	6,000	Interest on Debentures	12,000
Machinery	6,000	Interim Dividend	24,000
Mains	61,200	Net Revenue A/c as on 01-01-2010	34,200
Share Capital-Ordinary Shares	6,58,800	Sundry Debtors:	
Debentures	2,40,000	For energy supplied	48,000
Sundry Creditors	1,200	Other	600
Cost of Generation	42,000	Cash Balance	6,000
Rent, Rates and Taxes	6,000	Depreciation Fund	3,00,000

Solution 5:

BALANCE SHEET (As per Revised Schedule VI)

Balance Sheet of GIP Power and Light Co. Ltd.

	Particulars	Notes		Rs.
	1	3	4	5
I.	CAPITAL AND LIABILITIES			
(1)	Shareholders' funds			
	Share capital		6,58,800	
	Reserves and surplus	1	67,800	7,26,600
(2)	Share application money pending allotment			--
(3)	Non-current liabilities			
	Long-term borrowings			
	Debenture			2,40,000
(4)	Current liabilities			
	Trade Payables			1,200
	TOTAL			9,67,800
II.	ASSETS			
(1)	Non-current assets			
	Fixed assets	2		9,13,200
(2)	Current assets			
	Trade receivables		48,000	
	Cash and cash equivalents		6,000	
	Other current assets		600	54,600
	TOTAL			9,67,800

-Ishan Dalwadi
+919727163353

Profit & Loss Account (As per Revised Schedule VI)
GIP Power and Light Co. Ltd.
Profit and loss statement for the year ended 31.12.2010

	Particulars		Rs.
I.	Revenue from operations: Sales of current		1,56,000
II.	Other income: Meter rent		6,000
III.	Total Revenue (I+II)		1,62,000
IV.	Expenses:		
	Cost of Generation		42,000
	Finance costs: Interest on Debenture		12,000
	Depreciation and amortisation expenses		24,000
	Other expenses		
	Rent Rates Taxes	6,000	
	Expense of Management	14,400	
	Cost of distribution	6,000	26,400
	Total Expenses		1,04,400
V.	Profit before exceptional and extraordinary items and tax		57,600
VI.	Exceptional items		--
VII.	Profit before extraordinary items and tax		57,600
VIII.	Extraordinary Items		--
IX.	Profit before tax		57,600
X.	Tax expense:		--
XV.	Profit (Loss) for the period		57,600

Note No. 1: Reserve & Surplus:

	Profit & Loss Account (Net Revenue A/c)			Rs.
	Balance brought forward		34,200	
	Add: Profit for the year		57,600	
	Less: Interim Dividend		- 24,000	67,800

Note No. 2: Fixed Assets:

	Fixed Assets	Opening	Additions	Closing
	Land	1,80,000	6,000	1,86,000
	Machinery	7,20,000	6,000	7,26,000
	Mains	2,40,000	61,200	3,01,200
	Total			12,13,200
	Less: Depreciation Fund			3,00,000
	Closing WDV			9,13,200

Illustration.6: The following balances are drawn from the books of an Electricity Supply Company for the year ended 31st December, 2010, Finalise the accounts following double accounts system (you may ignore the requirements of the Indian Electricity Rules, 1956).

	Rs.
Sale of Electricity : Domestic	75,20,000
Commercial	1,80,12,000
Misc. Revenues: Meter Rent	1,88,000
Service Connections Fees	1,75,000
Public Lighting Maintenance	2,80,000
Other Revenues: Sale of Stores	50,000
Repair of Electrical Apparatus	40,000
Maintenance Expenses:	
Salaries	78,40,000

Operations & Maintenance of High Voltage Distribution	40,12,000
Operations & Maintenance of Medium & Low Voltage Distribution	36,40,000
Public Lighting	12,17,000
Consumers' Servicing	50,000
General Establishment Charges	2,85,000
Interest	12,10,000
Bad Debts	80,000
Management Charges	4,80,000
Assets as on 1-1-2010:	
Distribution Plant - High Voltage	1,80,50,000
Distribution Plant - Medium and Low Voltage	90,90,000
Public Lighting	40,00,000
General Equipment	50,00,000
Share Capital: 10,00,000 equity shares of Rs.10 each	1,00,00,000
Government Grant	10,00,000
Consumers' Contribution for Service Line	50,00,000
Loan	2,40,00,000
Reserve	40,50,000
Capital Expenditure During 2010: High Voltage Distribution Plant	14,00,000
Medium and Low Voltage Distribution Plant	15,00,000
Loan raised during 2010: 10% Electricity Board	25,00,000
Other Assets and Liabilities as on 31-12-2010:	
Sundry Creditors	15,22,000
Sundry Debtors	27,36,000
Cash-at Bank	62,97,000
Investments	82,50,000
Charge Depreciation @ 5% on all assets.	

Solution 6:

BALANCE SHEET (As per Revised Schedule VI)

Balance Sheet of Electricity Supply Company.

	Particulars	Notes		Rs.
	1	3	4	5
I.	CAPITAL AND LIABILITIES			
(1)	Shareholders' funds			
	Share capital		1,00,00,000	
	Reserves and surplus	1	1,55,49,000	2,55,49,000
(2)	Share application money pending allotment			--
(3)	Non-current liabilities			
	Long-term borrowings: Loans	2		2,65,00,000
(4)	Current liabilities			
	Trade Payables			15,22,000
	TOTAL			535,71,000
II.	ASSETS			
(1)	Non-current assets			
	Fixed assets	3	3,62,88,000	
	Non-current investment		82,50,000	4,45,38,000
(2)	Current assets			
	Trade receivables		27,36,000	
	Cash and cash equivalents		62,97,000	90,33,000
	TOTAL			535,71,000

-Ishan Dalwadi
+919727163353

Profit & Loss Account (As per Revised Schedule VI)
Electricity Supply Company.
Profit and loss statement for the year ended 31.12.2010

	Particulars	Notes	Rs.
I.	Revenue from operations: Sales of current	4	2,55,32,000
II.	Other income:	5	7,33,000
III.	Total Revenue (I+II)		2,62,65,000
IV.	Expenses:		
	Cost of Generation & Operation, Maintenance	6	88,69,000
	Employee benefit cost		78,40,000
	Finance costs: Interest on Debenture		12,10,000
	Depreciation and amortisation expenses		19,52,000
	Other expenses	7	8,95,000
	Total Expenses		2,07,66,000
V.	Profit before exceptional and extraordinary items and tax		54,99,000
VI.	Exceptional items		--
VII.	Profit before extraordinary items and tax		54,99,000
VIII.	Extraordinary Items		--
IX.	Profit before tax		54,99,000
X.	Tax expense:		--
XV.	Profit (Loss) for the period		54,99,000

Note No. 1: Reserve & Surplus:

		Rs.
	Capital reserve: Govt. Grant	10,00,000
	: Consumers contribution for service line	50,00,000
	Reserves	40,50,000
	Profit & loss account	54,99,000
		1,55,49,000

Note No. 2: Long term Borrowings:

	Loans			Rs.
	Balance brought forward		2,40,00,000	
	Addition during the year		25,00,000	2,65,00,000

Note No. 3: Fixed Assets:

	Fixed Assets	Opening	Additions	Closing
	Distribution Plant- High voltage	1,80,50,000	14,00,000	1,94,50,000
	- Medium & low voltage	90,90,000	15,00,000	1,05,90,000
	Public lighting	40,00,000		40,00,000
	General equipment	50,00,000		50,00,000
	Total			3,90,40,000
	Less: Depreciation Provision: Opening		8,00,000	
	Current year @5% on 3,90,40,000		19,52,000	27,52,000
	Closing WDV			3,62,88,000

Sp. Note: Difference in trial balance Rs.8,00,000 credit short is assumed as Opening depreciation provision. Current years depreciation is assumed by SLM.

Note No. 4: Sales:

	Sale of Electricity			Rs.
	Domestic		75,20,000	
	Commercial		1,80,12,000	2,55,32,000

-Ishan Dalwadi
+919727163353

Note No. 5: Other Income:

	Misc. & Other revenue			Rs.
	Meter Rent		1,88,000	
	Service connection fees		1,75,000	
	Public lighting maintenance		2,80,000	
	Sales of stores		50,000	
	Repair of electrical apparatus		40,000	7,33,000

Note No. 6: Generation, Operation & Maintenance Expenses:

				Rs.
	Operation & Maintenance- High voltage dist.		40,12,000	
	- Medium & low voltage dist.		36,40,000	
	- Public lighting		12,17,000	88,69,000

Note No. 7: Other Expenses:

	Other expenses			Rs.
	Consumers servicing		50,000	
	General establishment charges		2,85,000	
	Bad debt		80,000	
	Management charges		4,80,000	8,95,000

Best of Luck

-Ishan Dalwadi
+919727163353