

ACCOUNTS OF ELECTRICITY COMPANIES

Introduction

- ✦ India is the **third-largest producer** and **second-largest consumer** of electricity worldwide,
- ✦ with an installed power capacity of 395.07 GW, as of January 2022.
- ✦ This huge demand of electricity is **met by the power generation and distribution companies**
- ✦ in India which includes thermal power generating companies, hydro power generating companies
- ✦ and companies producing power from other renewable sources.

Regulatory Framework for Electricity Companies

- ✦ In India, administration including accounting of electricity companies
- ✦ is guided by the Electricity Act, 2003.
- ✦ **The Electricity Act, 2003 replaced the following erstwhile existing legislations, namely:**
 - a. The Indian Electricity Act, 1910;
 - b. The Electricity (Supply) Act, 1948; and
 - c. The Electricity Regulatory Commissions Act, 1998. The provisions of this Act extend to whole of India.

Main Features of the Electricity Act, 2003

Following are the main features of Electricity Act, 2003.

- a. The **activities like generation, transmission and distribution** of power have been **separately identified**.
- b. Power generation has completely been de-licensed (except for hydro power projects, over a certain size).
- c. **10% of the power** supplied by suppliers and distributors to the consumers **has to be generated using renewable and non-conventional sources of energy**.
- d. Setting up **State Electricity Regulatory Commission (SERC)** has been made **mandatory**.
- e. **Appellate Tribunal** to hear appeals against the decision of the CERC and SERCs.
- f. **Ombudsman scheme** for consumers' grievance redressal has been **introduced**.
- g. Provision has been incorporated for private licensees in transmission and entry in distribution through an independent network.
- h. **Metering** of all electricity supplied has been made **obligatory**.
- i. **Provision relating to theft of electricity** have been made **stricter**.

Role of Central Electricity Authority

- ✦ The Central Government has the power to constitute a body called
- ✦ Central Electricity Authority generally to exercise prescribed functions and perform prescribed duties.
- ✦ The office of the CEA is an "Attached Office" of the Ministry of Power.
- ✦ The CEA is responsible for the technical coordination and supervision of programmes
- ✦ and is also entrusted with prescribed statutory functions.

- ✦ The CEA shall consist of **not more than 14 Members** (including its Chairperson),
- ✦ of whom **not more than 8 shall be full-time members** to be appointed by the Central Government.
- ✦ The Central Government appoints **one of the full-time members** to be the **chairman** of the Authority.

Role of Central Electricity Regulatory Commission (CERC)

- ✦ The Central Electricity Regulatory Commission shall be a body corporate,
- ✦ having perpetual succession and a common seal with power to
- ✦ acquire, hold and dispose of property, both movable and immovable,

- ★ and to contract and shall, by the said name, sue or be sued.

The Central Commission shall consist of the following Members namely:

i. A chairperson and 3 Members

ii. The Chairperson of the Authority who shall be the Member, ex-officio.

- ★ The Chairperson and Members of the Central Commission shall be appointed
- ★ by the Central Government on the recommendation of the Selection Committee.
- ★ The functions of the Central Commission include regulating the tariff of generating companies, the inter-state transmission of electricity, to issue licenses, to levy fees, to fix trading margin etc.

Role of State Electricity Commission (SEC)

- ★ The State Electricity Commission shall be a body corporate, having perpetual succession and a common seal
- ★ with power to acquire, hold and dispose of property, both movable and immovable,
- ★ and to contract and shall, by the said name, sue or be sued.
- ★ The functions of the State Commission include determining the tariff of generation, supplying, transmission
- ★ and wheeling of electricity companies, wholesale, bulk or retail,
- ★ regulating the inter-state transmission of electricity, to issue licenses, to levy fees, to fix trading margin etc.

Accounting in Electricity Companies

A. Accounting of Some Special Transactions

1. Accounting and Reporting of Security Deposit

- ★ As per condition of supply, all State Electricity Boards are empowered to collect security deposit from their consumers.
- ★ Since, consumers are required to make payment for the electricity consumed on a post- pay basis,
- ★ security deposit collected from the consumers act as a cushion against the possible loss due to non-payment by the consumer.

Legal Provisions

The legal provisions relating to security deposit are as follows:

a. The Distribution Licensee may require the consumer to deposit sufficient security against the estimated payment which may become due to him in respect of electricity supplied to the consumer.

b. The Distribution Licensee shall pay interest equivalent to the Bank Rate or more, as may be specified by the concerned State Commission, on the security and refund such security on the request of the person who gave such security.

c. The amount of Security Deposit for a consumer shall be determined as follows:

Security Deposit = Load × Load Factor of the category in which the consumer falls × (Billing cycle + 45 days) × Current tariff.

Accounting for Security Deposit :

- ★ Covered in the class notes

Reporting of Security Deposit in the Balance Sheet of Distribution Licensee:

a. **Balance of Security Deposit A/c** at the end of the accounting period should be disclosed as a

- ✦ Non-current Liability in the Balance Sheet as the same is, in substance,
- ✦ not repayable within a period of 12 months from the reporting date
- ✦ and hence does not satisfy any of the conditions of classifying a liability as current.

b. **Balance of Interest Accrued on Security Deposit A/c** at the end of the accounting period should be

- ✦ disclosed as Non-current Liability in the Balance Sheet as the same is, in substance, not repayable
- ✦ within a period of 12 months from the reporting date
- ✦ and hence does not satisfy any of the conditions of classifying a liability as current.

2. Accounting for Service Line cum Development (SLD) Charges Received from Consumers

- ✦ The Service Line cum Development (SLD) Charges can be accounted and reported under any one of the following methods:

Accounting Practice 1: SLD is accounted for as a liability and subsequently proportionate amount is transferred to Income Statement during the expected life of the Asset.

Accounting Practice 2: SLD is accounted for as Reserve as the amount is not refundable and disclosed under the head Reserves and Surplus without transferring any proportionate amount to Income Statement during the expected life of the Asset.

Accounting Practice 3: SLD is accounted for as Capital Reserve as the amount is not refundable and subsequently proportionate amount is transferred to Income Statement during the expected life of the Asset to match against depreciation on total cost of such asset.

Notes:

- ✦ Balance of Capital Service Line Contributions A/c at the end of the accounting period should be disclosed as Capital Reserve under the head 'Reserves and Surplus'
- ✦ as it is not refundable to consumers wherein the amount transferred to Income Statement is shown as deduction.
- ✦ The amount transferred matches proportionately against depreciation charged on total cost of such asset in the Statement of Profit and Loss.
- ✦ Under this method, the journal entries in the books of the Distribution Licensee will be as follows:

In the books of Distribution Licensee Journal

| Date | Particulars | L.F. | ₹ | ₹ |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|---|
| | (i) On Receipt of SLD Charges Bank A/c Dr. To Capital Service Line Contribution A/c (Being the SLD Charges received) | | | |
| | (ii) On Transfer of Proportionate Amount to Income Statement Capital Service Line Contribution A/c Dr. To Statement of Profit and Loss (Being the Transfer of Proportionate amount to the Income Statement) | | | |

Accounting Practice 4: SLD is accounted for as reduction in the cost of Non-Current Asset and depreciation is provided on such reduced cost.

3. Accounting for Grant Received under APDRP (Currently R-APDRP)

With respect to the accounting for Grant Received under APDRP the following points are noteworthy:

a. Grant received under the Accelerated Power Development and Reforms Programme (APDRP) of the Ministry of Power, Government of India towards capital expenditure is treated as capital receipt and

accounted as Capital Reserve and subsequently adjusted as income (by transfer to the Statement of Profit and Loss) in the same proportion as the depreciation written off on the assets acquired out of the grant.

- b. The depreciation for the year to be debited to the Statement of Profit and Loss on asset acquired out of grant to match against portion of grant transferred from Capital Reserve.
- c. The unadjusted balance of Capital Reserve is disclosed under the head, Reserves and Surplus, in the Balance Sheet.
- d. In the Cash Flow Statement Grant received under APDRP is reported under Financing Activity.
- e. At any time if the ownership of the assets acquired out of the grants vest with the Government, the grants (Capital Reserve) are adjusted in the carrying cost of such assets.
- f. The grant-in-aid assistance received by the utility under APDRP and its utilization shown under the head Capital Expenditure made during the year, is not considered for calculation of Annual Revenue Requirement (ARR) of the utility for the year.

4. Accounting for Depreciation

With respect to accounting for depreciation, the following points are noteworthy:

- a. As per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, it has been stated in the Tariff Policy that the depreciation rates for the assets shall be specified by the Central Electricity Regulatory Commission (CERC) and these rates of depreciation shall be applicable for the purpose of tariff as well as accounting. In Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, the rates have been specified in Appendix - I of the Regulation.
- b. The Office of the Comptroller and Auditor General of India (CAG) has expressed an opinion that power sector companies shall be governed by the rates of depreciation as notified by the CERC for providing depreciation in respect of generating assets in the account instead of the rates as per the Companies Act, 1956. Accordingly, a Company should revise its accounting policies relating to charging of depreciation w.e.f. 1st April 2009 considering the rates and methodology notified by the CERC for determination of tariff through Regulations, 2009. The same has been upheld in 2019 regulation also.
- c. The CERC prescribes the Straight-Line Method and at rates specified in Appendix - I for the assets of the generating station and transmission system, provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets. In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 from the gross depreciable value of the assets.

Calculation of Depreciation for the Purpose of Tariff as per 2019 Regulation

The calculation of depreciation shall be done considering the following points:

- a. The value base for the purpose of depreciation shall be the capital cost of the asset.
- b. Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- c. Depreciation shall be calculated annually, based on Straight Line Method over the useful life of the asset and at the rates prescribed in Appendix I to the Regulation.
- d. The Residual Life of the asset shall be considered as 10 years.

e. The **Salvage Value** of the Asset shall be considered as **10%**.

f. **Depreciation** shall be **allowed up to maximum of 90%** of the capital cost of the asset, provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

g. On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

h. Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.

Appendix - I of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019

* Covered in the classes.

5. Components of Tariff (A Thermal Generating Station)

- * As per Regulation 14 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019,
- * the tariff for supply of electricity from a thermal generating station shall comprise two parts,
- * namely, capacity charge (for recovery of annual fixed cost consisting of the components as specified in Regulation 15 of these regulations)
- * and energy charge (for recovery of primary and secondary fuel cost and cost of limestone and any other reagent, where applicable as specified in Regulation 16 of these regulations).

a. Capacity Charges: The capacity charges shall be derived on the basis of annual fixed cost. The Annual Fixed Cost (AFC) of a generating station or a transmission system including communication system shall consist of the following components:

- (i) Return on equity;
- (ii) Interest on loan capital;
- (iii) Depreciation; Interest on working capital; and
- (iv) Operation and maintenance expenses.

- * Provided that Special Allowance in lieu of R&M, where opted in accordance with Regulation 28 of these regulations,
- * shall be recovered separately and shall not be considered for computation of working capital.

b. Energy Charges: Energy charges shall be derived on the basis of the landed fuel cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost:

- (i) Landed Fuel Cost of primary fuel;
- (ii) Cost of secondary fuel oil consumption; and
- (iii) Cost of limestone or any other reagent, as applicable.

- * Provided that any refund of taxes and duties along with any amount received on account of penalties from fuel supplier shall be adjusted in fuel cost:
- * Provided further that the supplementary energy charges, if any, on account of meeting the revised emission standards in case of a thermal generating station shall be determined separately by the Commission.

I. Debt-Equity Ratio

* Covered in the video lectures

II. Return on Equity

- * Covered in the video lectures

III. Interest on Loan Capital

- The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan. Gross normative loan is 70% of the capital cost.
- The normative loan outstanding as on 1.4.2023 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2023 from the gross normative loan.
- The repayment for each of the year of the tariff period 2023-28 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.
- Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
- The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized.
- The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

IV. Interest on Working Capital

- * Covered in the video lectures

E. Operation and Maintenance Expenses

- * Covered in the video lectures

PRACTICAL QUESTIONS

Accounting for Security Deposit

Question 1. Consider the following information provided by ABC Power Supply Company Ltd.

Security deposit received from a customer on 01.10.2025 for ₹2,00,000. Interest rate applicable was 8% for 2025-26 and 9% for 2026-27. The accrued interest for the year is adjusted against the bill for the immediate next quarter. Journalize the above transaction for 2025-26 and 2026-27.

Appendix - I of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019

| Sr. No. | Asset Particulars | Depreciation Rate (Salvage Value = 10%) SLM |
|---------|--------------------------------------------------------------------------------------|---------------------------------------------|
| A | Land under full ownership | 0.00% |
| B | Land under lease | 3.34% |
| C | Assets purchased new | |
| a. | Plant and Machinery in generating stations | 5.28% |
| b. | Cooling towers and circulating water systems | 5.28% |
| c. | Hydraulic works forming part of the Hydro-generating stations | 5.28% |
| d. | Building and civil engineering works | |
| | Temporary erections such as wooden structures | 100% |
| | Others | 3.34% |
| e. | Transformers, Kiosk, sub-station equipment & other fixed apparatus (including plant) | 5.28% |
| f. | Switchgear including cable connections | 5.28% |
| g. | Lightning arrestor | 5.28% |
| h. | Batteries | 5.28% |
| i. | Overhead lines including cable support | 5.28% |
| j. | Meters | 5.28% |
| k. | Self-propelled vehicles | 9.50% |
| l. | Air Conditioning Plants | |
| | Static | 5.28% |

▲ How to Calculate Weighted Average Rate of Depreciation

Step 1: Calculate Depreciation on Individual Assets (other than Freehold Land) at the Rates as per Appendix III.

$$= \text{Cost of the Asset} \times \text{Prescribed Rate of Depreciation.}$$

Step 2: Calculate Total Depreciation on All Assets (other than Freehold Land). i.e., is the sum total of depreciation calculated on each asset

$$= \text{Depreciation on Asset1} + \text{Depreciation on Asset2} + \dots$$

Step 3: Calculate Total Capital Cost of All Assets (other than Freehold Land).

Step 4: Calculate Weighted Average Rate of Depreciation.

$$= \frac{\text{Total depreciation on all assets (other than freehold land)}}{\text{Total capital cost of all assets (other than freehold land)}} \times 100$$

★ The weighted average rate of depreciation is used in tariff calculation.

Question 2. From the following calculate Weighted Average Rate of Depreciation considering the rates as per Appendix-I.

| Assets | Closing Balance at Cost (₹) |
|------------------------------|-----------------------------|
| 1. Land under full ownership | 14,30,000 |
| 2. Land under Lease | 4,30,000 |

| | |
|--------------------------------------------------------------------------|-------------|
| 3. (a) Building & Civil Engineering Works other than Kutcha Roads | 33,00,000 |
| (b) Railways Sidings | 40,00,000 |
| (c) Temporary Erections such as Wooden Structures | 10,00,000 |
| 4. IT Equipment | 20,00,000 |
| 5. Self-Propelled Vehicles | 30,00,000 |
| 6. Portable Air Conditioning Plants | 25,00,000 |
| 7. (a) Apparatus other than Motors let on hire | 15,00,000 |
| (b) Motors let on hire | 2,00,000 |
| 8. Communication Equipment | 5,00,000 |
| 9. Office Furniture, Furnishing, Equipment, Fittings & Apparatus | 5,00,000 |
| 10. Plants & Machinery in generating stations | 2,52,00,000 |
| 11. Cooling Towers & Circulating Water Systems | 10,00,000 |
| 12. Hydraulic Works Forming part of the Hydro-dams, etc. | 20,00,000 |
| 13. Transformers & Switchgear | 2,05,00,000 |
| 14. Lighting Arrestor, Batteries, Overhead lines including cable support | 42,00,000 |
| 15. Meters | 20,00,000 |
| 16. Static Air Conditioning Plants | 1,00,00,000 |
| 17. Street Light Fittings | 47,85,000 |
| 18. Vehicles other than Self Propelled Vehicles | 2,15,000 |

Solution: Calculation of Total Cost and Total Depreciation

| Assets | Rate | Cost | Depreciation |
|--------------------------------------------------------------------------|---------|-------------|--------------|
| 1. Land under full ownership | 0.00% | 14,30,000 | 0 |
| 2. Land under Lease | 3.34% | 4,30,000 | 14,362 |
| a. Building & Civil Engineering Works other than Kutcha Roads | 3.34% | 33,00,000 | 1,10,220 |
| b. Railways Sidings | 3.34% | 40,00,000 | 1,33,600 |
| c. Temporary Erections such as Wooden Structures | 100.00% | 10,00,000 | 10,00,000 |
| 4. IT Equipment | 15.00% | 20,00,000 | 3,00,000 |
| 5. Self-Propelled Vehicles | 9.50% | 30,00,000 | 2,85,000 |
| 6. Portable Air Conditioning Plants | 9.50% | 25,00,000 | 2,37,500 |
| 7. (a) Apparatus other than Motors let on hire | 9.50% | 15,00,000 | 1,42,500 |
| (b) Motors let on hire | 6.33% | 2,00,000 | 12,660 |
| 8. Communication Equipment | 6.33% | 5,00,000 | 31,650 |
| 9. Office Furniture, Furnishing, Equipment, Fittings & Apparatus | 6.33% | 5,00,000 | 31,650 |
| 10. Plants & Machinery in generating stations | 5.28% | 2,52,00,000 | 13,30,560 |
| 11. Cooling Towers & Circulating Water Systems | 5.28% | 10,00,000 | 52,800 |
| 12. Hydraulic Works Forming part of the Hydro-dams, etc. | 5.28% | 20,00,000 | 1,05,600 |
| 13. Transformers & Switchgear | 5.28% | 2,05,00,000 | 10,82,400 |
| 14. Lighting Arrestor, Batteries, Overhead lines including cable support | 5.28% | 42,00,000 | 2,21,760 |

| | | | |
|-------------------------------------------------|-------|-------------|-----------|
| 15. Meters | 5.28% | 20,00,000 | 1,05,600 |
| 16. Static Air Conditioning Plants | 5.28% | 1,00,00,000 | 5,28,000 |
| 17. Street Light Fittings | 5.28% | 47,85,000 | 2,52,648 |
| 18. Vehicles other than Self Propelled Vehicles | 5.28% | 2,15,000 | 11,352 |
| Total | | 9,02,60,000 | 59,89,862 |

Total Capital Cost of All Assets (other than Freehold land) = 9,02,60,000 - 14,30,000 = 8,88,30,000
 Weighted Average Rate of Depreciation = Total depreciation on all assets (other than freehold land) / Total capital cost of all assets (other than freehold land) × 100 = 59,89,862 / 8,88,30,000 = 6.4731%

Debt-Equity Ratio

- ★ The Capital cost of the generating station or the transmission system, as the case may be,
- ★ as determined by the Commission after prudence check in accordance with these regulations
- ★ shall form the basis for determination of tariff for existing and new projects.
- ★ For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered.
- ★ If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.
- ★ Where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff.

Return on Equity

- ★ Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
- ★ The normative equity base for this purpose will be 30% of the capital cost.
- ★ Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station,
- ★ and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage.
- ★ Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system.

Calculation of ROE at normal rate is done as follows:

Statement showing Return on Equity at Normal Rate

| Sr. No. | Particulars | Year | Year | Year |
|---------|------------------------------------------------------------------|------|------|------|
| | | 1 | 2 | 3 |
| 1 | 2 | 3 | 4 | 5 |
| | Return on Equity | | | |
| 1 | Gross Opening Equity (Normal) | | | |
| 2 | Less: Adjustment in Opening Equity | | | |
| 3 | Adjustment during the year | | | |
| 4 | Net Opening Equity (Normal) | | | |
| 5 | Add: Increase in equity due to addition during the year / period | | | |
| 6 | Less: Decrease due to De-capitalisation during the year / period | | | |
| 7 | Less: Decrease due to reversal during the year / period | | | |
| 8 | Add: Increase due to discharges during the year / period | | | |
| 9 | Net closing Equity (Normal) | | | |
| 10 | Average Equity (Normal) | | | |
| 11 | Rate of ROE | | | |

12 Total ROE

Question 3. Consider the following information provided by XYZ Power Supply Company Ltd. (₹ in lakhs):
 Gross opening equity ₹3,000 as on 01.04.2025.
 Adjustment in opening equity - Nil Adjustment during the year - Nil
 Increase in equity due to addition during the year (over 5 years): ₹500 Decrease due to reversal and de-capitalization (over 5 years): Nil Increase due to discharges during the year: Nil
 Rate of ROE: 18%
 Calculate total ROE for the next five years.

Question 4. From the following information Calculate Return on Equity:

1. Date of Commercial Operation of COD = 1st April 2023
2. Approved Opening Capital Cost as on 1st April 2023 = ₹15,00,000
3. Details of allowed Additional Capital Expenditure:

| | 1st year | 2nd year | 3rd year | 4th year |
|------------------------------------------|----------|----------|----------|----------|
| Additional Capital Expenditure (Allowed) | 1,00,000 | 30,000 | 20,000 | 10,000 |

Rate of ROE: 15.5%

| S.N | Particulars | Year 1 | Year 2 | Year 3 | Year 4 |
|-----|------------------------------------------------------------------------|----------|----------|----------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | Return on Equity | | | | |
| 1 | Gross Opening Equity (Normal) 30% of Opening Capital Cost | 4,50,000 | 4,80,000 | 4,89,000 | 4,95,000 |
| 2 | Less: Adjustment in Opening Equity | Nil | Nil | Nil | Nil |
| 3 | Adjustment during the year | Nil | Nil | Nil | Nil |
| 4 | Net Opening Equity (Normal) | 4,50,000 | 4,80,000 | 4,89,000 | 4,95,000 |
| 5 | Add: Increase in equity due to addition during the year / period (30%) | 30,000 | 9,000 | 6,000 | 3,000 |
| 6 | Less: Decrease due to De-capitalisation during the year / period | Nil | Nil | Nil | Nil |
| 7 | Less: Decrease due to reversal during the year / period | Nil | Nil | Nil | Nil |
| 8 | Add: Increase due to discharges during the year / period | Nil | Nil | Nil | Nil |
| 9 | Net closing Equity (Normal) | 4,80,000 | 4,89,000 | 4,95,000 | 4,98,000 |
| 10 | Average Equity (Normal) | 4,65,000 | 4,84,500 | 4,92,000 | 4,96,500 |
| 11 | Rate of ROE | 15.5% | 15.5% | 15.5% | 15.5% |
| 12 | Total ROE | 72,075 | 75,098 | 76,260 | 76,958 |

IV. Interest on Working Capital

- ★ The working capital shall cover cost of fuel stock, advance payment towards such cost,
- ★ cost towards secondary fuel oil stock, maintenance spares, receivables and operation and maintenance expenses including water charges and security expenses, for one month.
- ★ Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2023
- ★ or as on 1st April of the year during the tariff period 2023-28 in which the generating station
- ★ or a unit thereof or the transmission system including communication system or element thereof,
- ★ as the case may be, is declared under commercial operation, whichever is later,
- ★ provided that in case of truing-up, the rate of interest on working capital shall be considered

* at bank rate as on 1st April of each of the financial year during the tariff period 2023-28.

Calculation of interest on working capital is done in the following format:

Statement of Interest on Working Capital

| Sr. No. | Particulars | Year 1 | Year 2 | Year 3 |
|---------|---------------------------------|--------|--------|--------|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Cost of Coal/Lignite | | | |
| 2 | Cost of Main Secondary Fuel Oil | | | |
| 3 | Fuel Cost | | | |
| 4 | Liquid Fuel Stock | | | |
| 5 | O & M Expenses | | | |
| 6 | Maintenance Spares | | | |
| 7 | Receivables | | | |
| 8 | Total Working Capital | | | |
| 9 | Rate of Interest | | | |
| 10 | Interest on Working Capital | | | |

Question 5. Consider the following estimated information provided by XYZ Power Supply Company Ltd. (₹ in lakhs) for the next 5 years:

Cost of coal: ₹2,000 per year

Cost of secondary fuel oil: ₹200 per year for first 2 years and ₹300 per year for 3-5 years O and M expenses: ₹250 per year for first 2 years and ₹350 per year for 3-5 years Maintenance spares: ₹100 per years

Receivables: ₹1,800 per year Rate of interest: 12%

Calculate the interest on working capital.

Answer: Interest on Working Capital 522 522 546 546 546

E. Operation and Maintenance Expenses

It will include normative operation and maintenance expenses. In addition, the Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately.

Question 6. Consider the following estimated information provided by XYZ Power Supply Company Ltd. (₹ in lakhs) for the next 5 years:

Normative O & M expenses: ₹2500 for Year 1 and this will increase @10% per year. Water Charges: ₹500 for year 1 and 2 and it will increase @20% per year thereafter. Security expenses: ₹750 per year up to year 4 and ₹800 for 5th year.

Calculate total O & M expenses for five years.

Solution:

| Sr. No. | Particulars | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------|--------------------------|--------|--------|--------|---------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | Normative O & M expenses | 2,500 | 2,750 | 3,025 | 3,327.5 | 3,660.25 |
| 2 | Water Charges | 500 | 500 | 600 | 720 | 864 |
| 3 | Security expenses | 750 | 750 | 750 | 750 | 800 |
| 4 | Total O & M expenses | 3,750 | 4,000 | 4,375 | 4,797.5 | 5324.25 |

B. Preparation of Financial Statements of an Electricity Company

- * The financial statements of an electricity company are prepared as per Schedule III of the Companies Act, 2013.

Question 7. The trial balance of MM Electric Supply Ltd. For the year ended 31st March, 2026 is as below:

| Particulars | Dr. Balances Amount (₹ in '000) | Cr. Balances Amount (₹ in '000) |
|----------------------------------------------------|------------------------------------|------------------------------------|
| Share Capital: | | |
| Equity Shares of ₹10 each | | 50,000 |
| 14% Preference Shares of ₹100 each | | 15,000 |
| Patents and trade mark | 2,504 | |
| 15% Debentures | | 24,700 |
| 16% term loan | | 15,300 |
| Land (additions during the year 20,50) | 12,450 | |
| Building (additions during the year 50,80) | 35,134 | |
| Plant & Machinery | 57,058 | |
| Mains | 4,524 | |
| Meters | 3,150 | |
| Electric al Instruments | 1,530 | |
| Office Furniture | 2,450 | |
| Capital Reserve | | 4,020 |
| Contingency Reserves | | 12,030 |
| General Reserve | | 1,000 |
| Transformers | 16,440 | |
| Opening Balance of Profit & Loss Account | | 350 |
| Profit for the year 2024-25 subject to adjustments | | 17,100 |
| Stock in hand | 12,050 | |
| Sundry Debtors | 6,246 | |
| Contingency Reserve Investments: | | |
| SBI Bonds-2023 | 10,010 | |
| Other Investments | 2,000 | |
| Cash & Bank | 3,254 | |
| Public lamps | 3,040 | |
| Depreciation Fund | | 25,816 |
| Sundry Creditors | | 6,524 |

During 2025-26, 1,00,000, 14% Preference Shares were redeemed at a premium of 10% out of proceeds of fresh issue of equity shares of necessary amounts at a premium of 10%.

Adjustments:

- Transfer to Contingency Reserve ₹ 1,70,000 & to General Reserve ₹ 2,00,000
- Loss on Contingency Reserve Investment ₹ 10,000
- Make a Provision for debts considered doubtful of ₹1,014,000.

You are required to prepare the balance sheet as on 31st March, 2026 as per the schedule III.

Solution:

MM Electric Supply Ltd.
Balance Sheet as at 31st March, 2023

| Particulars | Note No. | (₹ in '000) |
|-------------|----------|-------------|
|-------------|----------|-------------|

| | | |
|------------------------------------|---|----------|
| I. EQUITY AND LIABILITIES | | |
| (1) Shareholders' Funds | | |
| (a) Share Capital | 1 | 65,000 |
| (b) Reserves and Surplus | 2 | 33,476 |
| (2) Non-Current Liabilities | | |
| (a) Long-term Borrowings | 3 | 40,000 |
| (3) Current Liabilities | | |
| (a) Trade Payables | | 6,524 |
| (b) Short-Term Provisions | | |
| Total | | |
| II. ASSETS | | |
| (1) Non-Current Assets | | |
| (a) Fixed Assets | | |
| (i) Tangible Assets | 4 | 1,09,960 |
| (ii) Intangible Assets | | 2,504 |
| (b) Non-Current Investments | 5 | 12,000 |
| (2) Current Assets | | |
| (a) Inventories | | 12,050 |
| (b) Trade Receivables | 6 | 5,232 |
| (c) Cash and Cash Equivalents | | 3,254 |
| Total | | 1,45,000 |

Notes to Accounts:

(figures in ₹)

1. Share Capital

| Particulars | ₹ |
|----------------------------------------------|----------|
| Authorized Capital | |
| 50,00,000 shares of ₹10 each | 50,000 |
| 2,50,000 14% Pref. Shares of ₹100 each | 25,000 |
| | 75,000 |
| Particulars | ₹ |
| Issued & Subscribed Capital | |
| 50,00,000 shares of ₹10 each | 50,000 |
| 2,50,000 14% Pref. Shares of ₹100 each | 25,000 |
| Less: 1,00,000 14% Pref. Shares of ₹100 each | (10,000) |
| | 65,000 |

2. Reserves and Surplus

| Particulars | ₹ | ₹ |
|-----------------------------------------|---------|--------|
| Capital Reserve | | 4,020 |
| Contingency Reserve (12,030 + 170 - 10) | | 12,190 |
| General Reserve (1,000 + 200) | | 1,200 |
| Profit & Loss Account | | |
| Opening Balance | 350 | |
| Add: Profit for the period | 17,100 | |
| Less: Transfer to General Reserve | (200) | |
| Less: Transfer to Contingency Reserve | (170) | |
| Less: Provision for Doubtful Debts | (1,014) | 16,066 |
| Total | | 33,476 |

3. Long-term Borrowings

| Particulars | ₹ |
|----------------|--------|
| 15% Debentures | 24,700 |
| 16% Term Loan | 15,300 |
| | 40,000 |

4. Tangible Assets

| Particulars | ₹ |
|---------------------------|----------|
| Land (10,400 + 20,50) | 12,450 |
| Building (30,054 + 50,80) | 35,134 |
| Plant & Machinery | 57,058 |
| Mains | 4,524 |
| Meters | 3,150 |
| Electric al Instruments | 1,530 |
| Office Furniture | 2 450 |
| Transformers | 16 440 |
| Public lamps | 3 040 |
| Less: Depreciation Fund | (25 816) |
| Total | 1,09,960 |

5. Non-Current Investments

| Particulars | ₹ |
|-----------------------------|--------|
| SBI Bond-2020 (10,010 - 10) | 10,000 |
| Other Investments | 2,000 |
| | 12,000 |

6. Trade Receivables

| Particulars | ₹ |
|------------------------------------|---------|
| Sundry Debtors | 6,246 |
| Less: Provision for Doubtful Debts | (1,014) |
| | 5,232 |