

**NAGALAND ELECTRICITY REGULATORY COMMISSION
(NERC)**



TARIFF ORDER

Dated: 27-03-2023.

**Performance Review for the FY 2022-23
and
Revised Aggregate Revenue Requirement (ARR)
&
Tariff Order for the FY 2023-24**

For -

**DEPARTMENT OF POWER,
GOVERNMENT OF NAGALAND**

*Near E-in-C Office, Department of Power,
AG Colony, Nagaland, Kohima-797001
E-mail: nerc_kohima@yahoo.com / Website: www.nerc.org.in*

LIST OF CONTENTS

1. INTRODUCTION.....	4
1.1 Nagaland Electricity Regulatory Commission.....	4
1.2 ARR and Tariff Petition.....	6
1.3 Admission of the Petition and Public Hearing Process	6
1.4 Notice for Public Hearing	7
1.5 Public Hearing	7
2. SUMMARY OF ARR AND TARIFF PETITION.....	8
2.1 Aggregate Revenue Requirement (ARR).....	8
2.2 Tariff	8
2.3 Prayers of DPN	9
3. POWER SECTOR IN NAGALAND – AN OVERVIEW.....	11
3.1 Geographical Reality	11
3.2 Power Supply	11
3.2.1 Own Generation	11
3.2.2 Power Purchase	11
3.3 Transmission and Distribution Network in the State	12
3.4 Transmission and Distribution (T&D) Losses	15
3.5 Consumer Profile and Energy sales.....	15
3.6 Demand.....	16
3.7 Energy Audit.....	16
3.8 Energy Metering	16
4. PUBLIC HEARING.....	17
4.1 Public Response to the Petition	17
4.2 Public Hearing	17
4.3 Proceedings of Public Hearing	17
5. TRUING-UP.....	22
6. REVIEW FOR THE FY 2022-23.....	24
6.1 Preamble	24
6.2 Energy demand (Sales)	24
6.3 Transmission and Distribution Losses (T&D Losses)	25
6.4 Energy Availability	25
6.4.1 Own Generation	25
6.4.2 Power Purchase	26
6.5 Energy Balance.....	27
6.6 Fuel Cost	27
6.7 Power Purchase Cost	28
6.8 Operation and Maintenance Expenses.....	29
6.8.1 Employee Cost	29

6.8.2	Administrative and General Expenses.....	30
6.8.3	Repair and Maintenance Expenses	30
6.8.4	Summary of O&M Expenditure approved by the Commission.....	30
6.9	Capital Expenditure & Capitalization.....	31
6.10	Gross Fixed Assets (GFA) and Depreciation.....	31
6.11	Interest and Finance Charges	32
6.12	Interest on Working Capital	33
6.13	Bad Debts.....	35
6.14	Return on Equity	35
6.15	Non-Tariff Income.....	35
6.16	Revenue from Existing Tariff.....	36
6.17	Aggregate Revenue Requirement (ARR).....	37
7.	ANALYSIS OF AGGREGATE REVENUE REQUIREMENT FOR THE FY 2023-4...	38
7.1	Energy Sales	38
7.2	Consumer Categories.....	38
7.3	Growth of Consumers and Connected Load.....	39
7.4	Category-wise Energy Sales.....	39
7.4.1	Analysis of Energy Sales Projections by DPN and the Commission's decision..	40
7.5	Category-Wise Energy Sales	47
7.6	Transmission and Distribution Losses (T&D Losses)	48
7.7	Energy Requirement	49
7.8	Energy Availability	50
7.8.1	Own Generation	50
7.8.2	Power Purchase	50
7.8.3	Assumption of Power Purchase Projection	52
7.8.4	Energy Draws from CGS and Other Sources	52
7.9	Energy Balance.....	54
7.10	Aggregate Revenue Requirement.....	55
7.11	Projected expenses by DPN and decisions of the Commission.....	56
7.12	Cost of Generation.....	56
7.13	Power Purchase Cost	57
7.14	Transmission and Other Charges	59
7.15	Operation and Maintenance Expenses.....	60
7.15.1	Employee Cost	61
7.15.2	Administrative and General Expenses.....	61
7.15.3	Repair and Maintenance Expenses	62
7.15.4	Summary of O&M Expenditure approved by the Commission.....	62
7.16	Capital Expenditure & Capitalization.....	63
7.17	Gross Fixed Assets (GFA) and Depreciation.....	64
7.18	Interest and Finance Charges	64

7.19	Interest on Working Capital	65
7.20	Bad Debts.....	66
7.21	Return on Equity	67
7.22	Non-Tariff Income	67
7.23	Revenue from Existing Tariff.....	67
7.24	Aggregate Revenue Requirement (ARR)	69
7.25	Revenue Gap	70
7.26	Recovery of Revenue Gap for the FY 2023-24	71
7.27	Government Subsidy	72
9.	TARIFF PRINCIPLES AND DESIGN.....	75
8.1	Background	75
8.2	Tariff Proposed by the DPN and approved by the Commission	77
8.2.1	Tariff Categories	77
8.2.2	Existing & Proposed Tariff.....	77
8.2.3	Tariff approved by the Commission.....	80
8.2.4	Tariff for prepaid metered consumers approved by the Commission	83
8.2.5	Common Items.....	84
8.2.6	Miscellaneous Charges	84
9.	DIRECTIVES.....	85
10.	WHEELING CHARGES.....	92
10.1	Wheeling Charges	92
10.2	Segregation of Cost	92
10.3	Wheeling Tariff	93
11.	FUEL AND POWER PURCHASE COST ADJUSTMENT.....	94

LIST OF TABLES

Table 2.1: Aggregate Revenue Requirement projected by DPN for FY 2023-24.....	8
Table 2.2: Existing Tariffs v/s Proposed Tariffs for the FY 2023-24.....	8
Table 3.1: Power allocation from Central Generating Stations (CGS).....	11
Table 3.2: Consumer Profile and Energy Sales for FY 2023-24.....	15
Table 6.1: Energy Sales approved by Commission for FY 2022-23	24
Table 6.2: T&D Losses approved by Commission for FY 2022-23	25
Table 6.3: Power Generation approved by Commission for the FY 2022-23.....	25
Table 6.4: Power Purchase approved by Commission for the FY 2022-23.....	26
Table 6.5: Energy Balance approved by Commission for the FY 2022-23	27
Table 6.6: Fuel Cost approved by Commission for the FY 2022-23.....	28
Table 6.7: Power Purchase Cost approved by Commission for the FY 2022-23	28
Table 6.8: Employee Cost approved by Commission for the 2022-23.....	29
Table 6.9: Administrative and General Expenses approved by Commission for the 2022-23	30
Table 6.10: Repair and Maintenance Expenses approved by Commission for the 2022-23	30
Table 6.11: O&M Expenses approved by Commission for the FY 2022-23	31
Table 6.12: Capital Works in Progress for the FY 2022-23	31
Table 6.13: Gross Fixed Assets for the FY 2022-23.....	32
Table 6.14: Depreciation approved by Commission for the FY 2022-23.....	32
Table 6.15: Interest on Loan furnished by DPN for the FY 2022-23.....	33
Table 6.16: Interest on Working Capital approved by Commission for the FY 2022-23	34
Table 6.17: Non-Tariff Income approved by Commission for the FY 2022-23.....	36
Table 6.18: Revenue from Sales approved by Commission for the FY 2022-23.....	36
Table 6.19: Aggregate Revenue Requirement approved by Commission for the FY 2022-23	37
Table 7.1: Category of Consumers	38
Table 7.2: Number of Consumers approved by Commission	39
Table 7.3: Projected Energy Sales	40
Table 7.4: Consumer Category-wise growth in Energy Sales	40
Table 7.5: Category-wise energy sales approved by the Commission	47
Table 7.6: Energy Requirement Projected by DPN.....	49
Table 7.7: Energy Requirement approved by the Commission	50
Table 7.8: Power Generation approved by Commission	50
Table 7.9: Power Allocation from Central Sector and Other Generating Stations	51
Table 7.10: Summary of Power Purchase projected by DPN	53
Table 7.11: Power Purchase approved by the Commission.....	54
Table 7.12: Energy Balance approved by the Commission.....	55
Table 7.13: Cost of Generation projected by DPN	56
Table 7.14: Power Purchase Cost projected by DPN.....	57
Table 7.15: Allocation of power from CGS.....	58
Table 7.16: Power Purchase Cost approved by the Commission for FY 2023-24	59
Table 7.17: Transmission and Other Charges projected by DPN	60
Table 7.18: Employee Cost projected by DPN.....	61