CONTENTS

1. Prakkathan (Foreword) .................................................................................................................. 9
2. Prastavana (Preface) ...................................................................................................................... 11

TABLES

Review of Growth of Indian Electricity Sector ................................................................. 15
0.1 Planwise growth of Electricity Sector (Utilities only) .................................................. 17
0.2 Growth of Installed Electricity Generation Capacity : primemover-wise (Utilities only) ................................................................................................................................. 18
0.3 Growth of Gross electricity generation primemover-wise (Utilities only) ................................................................. 19
0.4 Growth of Electricity Consumption Pattern (Utilities only) ........................................... 20
0.5 Growth of Installed Capacity of Captive Electricity Generation Units : modewise ................................................................................................................................................ 21
0.6 Growth of Electrical Energy generated by Captive Electricity Generation Units : modewise ................................................................................................................................................ 22
0.7 Growth of total electrical energy consumption by ultimate consumers Statewise (Utilities only) ................................................................................................................................................ 23

CHAPTER - 1

Organisational Structure of Electricity Supply Industry in India

Review ............................................................................................................................................. 27

1.1 State Electricity Boards existing in the country as on 31-03-2004. ......................... 28

1.2 Companies, Power Corporations, Management Boards under Central, State or Joint Partnership Existing in the country as on 31.03.2004 for electricity generation/transmission/distribution................................................................. 29

1.3 Classification of Licensees as on 31.03.2004 ................................................................. 33

1.4 Classification of Municipal Undertakings as on 31.03.2004. .................................... 34

1.5 Acquisition of Electricity Supply Undertakings during 2003-04. ............................ 35

1.6 New Electricity Supply Undertakings reported / constituted during 2003-04. ............ 36
CHAPTER - 2

Installed Electricity Generation Capacity (Utilities)

Review ............................................................................................................... 39
2.1 All India Installed Electricity Generation Capacity (Utilities & Non-Utilities) : Primemover-wise as on 31.03.2004 ................................................. 40
2.2 All India Installed Electricity Generation Capacity (Utilities only) Ownership wise & Primemover-wise as on 31.03.2004. ................................. 41
2.3 Installed Electricity Generation Capacity ( Utilities only) State-wise as on 31.03.2004 .............................................................................. 42
2.4 Installed Electricity Generation Capacity ( Utilities only) Primemoverwise/State-wise as on 31.03.2004. ............................................................. 43
2.5 Installed Electricity Generation Capacity of State Electricity Boards-Primemoverwise as on 31.03.2004. ................................................................. 44
2.6 Installed Electricity Generation Capacity of Electricity Departments/Government Undertakings & Private Sector, Primemover-wise as on 31.03.2004. ........................................ 45
2.7 Addition in Electricity Generation Capacity (Utilities only) during the year 2003-04 ........................................................................................ 47
2.8 Addition of Electricity Generation Capacity Primemover-wise/ Region-wise/State-wise during the year 2003-04. ...................................................... 49
2.9 Details of Installed Capacity retired /derated State-wise/ Primemover-wise during 2003-04. .............................................................................. 50
2.10 Net Addition / Deletion of Electricity Generation Capacity during 2003-04. ................................................................................................. 51
2.11 Share of participating States in jointly owned power stations during 2003-04. ................................................................................................. 52

CHAPTER - 3

Electricity Generation

Review ............................................................................................................... 55
3.1 Gross Electrical energy generation in the country (utilities & non-utilities)Prime-mover-wise during the year 2003-04. ............................................. 56
3.2 All India Gross electricity generation (utilities only) Ownership-wise and Primemover-wise during 2003-04. ...................................................... 57
3.3 All India Gross Electrical Energy Generation (Utilities only) .......................... 58

3.5 Gross Electrical Energy Generation by State Electricity Boards-Primemover-wise during 2003-04. .......................................................... 60


CHAPTER - 4

Captive Electricity Generation Plants(Non-Utilities)

Review ........................................................................................................................................ 65

4.1 All India Industry-wise break-up of Installed Electricity Generation Capacity, electrical energy generation and consumption of electricity during 2003-04. .......................................................................................................................... 66

4.2 Installed Electricity Generation Capacity of Captive Plants (1.00 MW and above) Statewise/Industrywise as on 31.3.2004. ...................... 67

4.3 Gross Electrical Energy Generation by Captive Plants (1.00 MW and above) Statewise/Industrywise during 2003-04. .................................. 70

4.4 All India Industry-wise/Primemover wise Installed Electricity Generation Capacity of Captive Plants (1.00 MW and above) during 2003-04. .................................................................................................................. 73

4.5 Industry-wise electricity generation & consumption by industries having Captive Plants(1.00 MW and above) during 2003-04. .................................................................................................................. 74

4.6 State-wise Installed Electricity Generation Capacity of Captive Plants (1.00 MW and above) as on 31-03-2004. ........................................... 76

4.7 State-wise Electricity Generation & Consumption by Industries having Captive Plants(1.00 MW and above) during 2003-04. ....................... 77

4.8 Statewise/Industrywise Electrical Energy Consumption by Industries having Captive Plants(1.00 MW and above) during 2003-04. .................. 79

4.9 Classification of Captive Electricity Generation Plants of Industries Capacity-wise during 2003-04. ............................................................. 82

4.10 Progress of Installed Electricity Generation Capacity of Captive Plants(1.00 MW and above) in Industries................................................. 83

4.11 Progress of Electrical Energy generated by Captive Plants(1.00 MW and above) of Industries ................................................................. 85
CHAPTER - 5
Electric Power Supply & System Losses
Review ............................................................................................................... 89

5.1 Electrical Energy generated, purchased, sold and 
lost (All India utilities) during 2003-04. ............................................................... 90
5.2 Electrical Energy lost in transmission & distribution system: 
Region-wise during 2003-04. ............................................................................. 91
5.3 Statewise system losses during 2003-04. ......................................................... 92
5.4 System losses by State Electricity Boards, DVC & 
BBMB during 2003-04. ....................................................................................... 94
5.5 Auxiliary Consumption (Utilities only) 
Primemover-wise/Statewise during 2003-04. ..................................................... 96
5.6 Energy offtakes by States in jointly owned power 
stations during 2003-04............. ........................................................................ 102
5.7 Energy offtakes by States from Central Government plants, 
DVC & State Govt. plants during 2003-04. ...................................................... 103
5.8 Inter-State transfers of electrical energy during 2003-04. ......................... 110

CHAPTER - 6
Operating Data (Utilities)
Review .............................................................................................................. 115

6.1 Consumption of fossil fuels for electricity generation in thermal 
power plants(By kind of fuels) Statewise during 2003-04. ................................. 117
6.2 Classification of steam type electricity generation plants 
thermal efficiency-wise during 2003-04. ............................................................ 119
6.3 Salient operating data for steam type electricity 
generation plants (Utilities) during 2003-04. ................................................... 120
6.4 Peak Electricity Demand met-Region-wise during 2003-04. ......................... 121
6.5 Manpower engaged in State Electricity Boards, DVC and 
Power Corporations as on 31.03.2004. .......................................................... 122
6.6 Plant Load factor of Thermal/Nuclear Electricity 
Generation Plants during 2003-04 ................................................................... 124
6.7 Coal Consumption in Thermal Electricity Generation 
Plants during 2003-04 ...................................................................................... 125
CHAPTER - 7

Electricity Transmission & Distribution System

Review ............................................................................................................. 129

7.1 Length of transmission & distribution lines State-wise as on 31.03.2004. ................................................................. 131

7.2 Length of transmission & distribution lines in State Electricity Boards as on 31.03.2004. ................................................................. 134

7.3 Number of transformers and their aggregate capacity (utilities only) State-wise as on 31.03.2004 ................................................................. 137

7.4 Number of transformers and their aggregate capacity in State Electricity Boards as on 31.03.2004. ................................................................. 139

CHAPTER - 8

Electricity Utilisation

Review ............................................................................................................. 143

8.1 All India Electrical Energy Sales (Utilities only) categorywise during 2003-04. ................................................................. 145

8.2 Electrical Energy sales to Ultimate consumers (utilities only) Ownership-wise /Region-wise/State-wise during 2003-04. ................................................................. 146

8.3 Electrical Energy sales to Ultimate consumers(utilities only)-category-wise/state-wise during 2003-04. ................................................................. 147

8.4 Electrical Energy sales by State Electricity Boards-Category-wise & Stationwise during 2003-04. ................................................................. 149

8.5 Electrical Energy sales by private licensees - Category-wise/State-wise during 2003-04 ................................................................. 151

8.6 Electrical Energy sales to ultimate consumers by electricity departments, central sector, corporations, govt. undertakings & municipalities-Category-wise State-wise during 2003-04. ................................................................. 153

8.7 Pattern of Electrical energy sales Category-wise State-wise during 2003-04. (Utilities only) ................................................................. 155

8.8 Annual per capita consumption of electricity (Utilities + Non-utilities)-Category-wise/State-wise during 2003-04 ................................................................. 157

8.9 Annual per Capita Consumption of electricity during 2003-04 ................................................................. 159
CHAPTER - 9

Electricity Consumers & Connected Load
Review ............................................................................................................. 163

9.1 Classification of electricity consumers & connected electric load
(Utilities only) Regionwise/ State-wise as on 31.03.2004 ................................. 164

CHAPTER - 10

Urban & Rural Electrification
Review ............................................................................................................. 169

10.1 Towns electrified as on 31.03.2004. ................................................................. 170
10.2 Villages electrified in various population groups and rural population benefited by electricity/State-wise as on 31.03.2004. .......... 171
10.3 Irrigation pumpsets/tubewells energized-State-wise as on 31.03.2004. ............................................................................................. 173

Appendix A :
List of Govt/Private Establishments/Organisations who had either not furnished 2003-04 Data or Data was not received within time. .......... 175

Appendix B :
List of Govt./Private Establishments/Organizations who furnished tentative (Provisional) Data ........................................................................ 176

Appendix C :
List of Utility-Organizations who have furnished 2003-04 Statistics ................. 177

Appendix D :
List of Hydro Power Stations as on 31-03-2004 .............................................. 181

Appendix E :
List of Thermal Power Stations as on 31-03-2004............................................ 189

Appendix F :
List of Captive Power Plants (1MW & above) of Industries that have closed down.......................................................... 202

Appendix G :
List of Captive Power Plants (1MW & above) who have furnished the Data in 2003-04 .......................................................... 206