



KARNATAKA ELECTRICITY REGULATORY COMMISSION

TARIFF ORDER 2017

OF

BESCOM

ANNUAL PERFORMANCE REVIEW FOR FY16

&

**REVISION OF ANNUAL REVENUE REQUIREMENT
FOR FY18**

&

**REVISION OF RETAIL SUPPLY
TARIFF FOR FY18**

11th April 2017

6th and 7th Floor, Mahalaxmi Chambers

9/2, M.G. Road, Bengaluru-560 001

Phone: 080-25320213 / 25320214

Fax : 080-25591412 / 25320338

Website: www.karnataka.gov.in/kerc - E-mail: kerc-ka@nic.in

CONTENTS

CHAPTER		Page No.
1.0	Bangalore Electricity Supply Company Ltd	3
1.1	BESCOM at a Glance	5
1.2	Number of Consumers, Sales in MU to various categories of Consumers and details of Revenue for FY-16	5
2.0	Summary of Filing & Tariff Determination Process	7
2.1	Preliminary Observations of the Commission	7
2.2	Public hearing Process	8
2.3	Consultation with the Advisory Committee of the Commission.	9
3	Public Consultation-Suggestions/Objections and Replies	10
3.1	List of Persons who have filed written objections	10
3.2	List of Persons who have made oral Submissions	11
4	Annual Performance Review for FY16	17
4.0	BESCOM's Application for APR for FY16	17
4.1	BESCOM's Submission	17
4.2	BESCOM'S Financial Performance as per Audited Accounts for FY16.	19
4.2.1	Sales for FY16	20
4.2.2	Distribution Losses for FY16	29
4.2.3	Power Purchase for FY16	30
4.2.4	RPO Compliance by BESCOM for FY16	33
4.2.5	Operation and Maintenance Expenses	36
4.2.6	Depreciation	40
4.2.7	Capital Expenditure for FY-16	42
4.2.8	Interest and Finance Charges	56
4.2.9	Other Debits	61
4.2.10	Net Prior Period Charges	62
4.2.11	Return on Equity	62
4.2.12	Income Tax	65
4.2.13	Other Income	65
4.2.14	Fund towards Consumer Relations/Consumer Education.	66
4.2.15	Carrying cost on Regulatory Asset	67
4.2.16	Revenue Demand for FY16	68
4.2.17	Subsidy for FY16	69
4.3	Abstract of Approved ARR for FY16	70
4.4	Gap in Revenue for FY16	71
5.0	Revised Annual Revenue Requirement for FY 18 Application.	72
5.1	Annual Performance Review for FY16	73
5.2	Revised Annual Revenue Requirement for FY18	74

5.2.1	Capital investments for FY18	74
5.2.2	Sales Forecast for FY18	76
5.2.3	Distribution Losses for FY18	89
5.2.4	Power Purchase for FY18	91
5.2.5	RPO Target for FY18	95
5.2.6	O & M Expenses for FY18	97
5.2.7	Depreciation	101
5.2.8	Interest on Capital Loans	103
5.2.9	Interest on Working Capital	105
5.2.10	Interest on Consumer Security Deposit	106
5.2.11	Other Interest & Finance Charges	107
5.2.12	Interest & other expenses capitalised	108
5.2.13	Return on Equity	108
5.2.14	Other Income	111
5.2.15	Fund towards Consumer Relations/Consumer Education	111
5.3	Contribution towards Pension & Gratuity Trust	112
5.4	Abstract of Revised ARR for FY18	113
5.5	Segregation of ARR into ARR for Distribution Business and ARR for Retail Supply Business	115
5.6	Gap in Revenue for FY18	116
6	Determination of Retail Supply Tariff for FY18	118
6.0	Revision of Retail Supply Tariff for FY18- BESCO's Proposals and Commission's Decisions.	118
6.1	Tariff Application	118
6.2	Statutory provisions guiding determination of Tariff	118
6.3	Factors considered for Tariff setting	119
6.4	New Tariff proposals by BESCO	120
6.5	Revenue at existing tariff and deficit for FY18	129
6.6	Category-wise existing, proposed and approved Tariff	130
6.7	Wheeling and Banking charges	161
6.7.1	BESCO's proposal	161
6.7.2	Wheeling within BESCO Area.	162
6.7.3	Wheeling of Energy using Transmission Network or Network of more than one Licensee	163
6.7.4	Charges for wheeling of Energy by RE Sources(NON-REC ROUTE) to Consumers in the State	164
6.7.5	Charges for wheeling Energy by RE Sources wheeling energy from the State to a Consumer/Others outside the State and for those opting for Renewable Energy Certificate(REC)	164
6.8	Banking Charges and Additional Surcharge	165
6.9	Cross SUBSIDY Surcharge(CSS)	166
6.10	Other issues	168
6.10.1	Tariff for Green Power	168
6.11	Other Tariff related issues	169

6.12	Cross Subsidy Levels for FY18	171
6.13	Effect of Revised Tariff	171
6.14	Summary of the Tariff Order	172
6.15	Commission's Order	174
	Appendix	175
	Appendix-1	223

LIST OF TABLES

Table No.	Content	Page No.
4.1	APR for FY16-BESCOM's Submission	18
4.2	Financial Performance of BESCOM for FY16	19
4.3	BESCOM's Accumulated Profits/Losses	20
4.4	Approved and Actual Sales for FY16	21
4.5	Format for IP Set Consumption as per feeder wise data	25
4.6	Approved sales for FY16 under APR	28
4.7	Power Purchase for FY16-Approved and Actuals	30
4.8	Short fall in supply from KPCL Stations	31
4.9	RPO Compliance as reported by BESCOM	33
4.10	Non Solar RPO Compliance by BESCOM	34
4.11	Solar RPO Compliance by BESCOM	35
4.12	O & M expenses of BESCOM as per Audited Accounts for FY16	36
4.13	Normative O & M Expenses-BESCOM's submission	36
4.14	Approved O & M expenses as per Tariff Order dated 02.03.2015	37
4.15	Allowable inflation for FY16	38
4.16	Allowable O & M expenses for FY16	40
4.17	Depreciation for FY16-BESCOM's submission	41
4.18	Allowable Depreciation for FY16	41
4.19	Capital expenditure for FY-16 BESCOM's submission	42
4.20	Approved and Actual Capex incurred –FY12 to FY16	47
4.21	Total works and selected samples for Prudence check	49
4.22	Summary of Prudence check findings for FY16	50
4.23	Details of Not prudent and Conditionally Prudent works	50
4.24	Summary of works having Cost overrun	51
4.25	Summary of works having Time overrun	51
4.26	Details of Amounts disallowed in APR FY16	53
4.27	Interest on Capital Loans- BESCOM's Submission	56
4.28	Allowable Interest on Capital Loans-FY16	57
4.29	Interest on Working Capital- BESCOM's Submission	58
4.30	Allowable Interest on Working Capital for FY16	59
4.31	Interest on Consumer Security Deposits for FY16-BESCOM's Submission	59
4.32	Allowable Interest and Finance Charges.	61
4.33	Other Debts – BESCOM's Submission	61
4.34	Net Prior Period Charges-BESCOM's Submission	62
4.35	Return on Equity-BESCOM's Submission	62
4.36	Status of Debt Equity Ratio for FY16	63
4.37	Allowable Return on Equity	64
4.38	Return on equity for the additional equity received during FY16	64

4.39	Other income- BESCO's Submission	65
4.40	Allowable Other Income for FY16	66
4.41	Approved ARR for FY16 as per APR	70
5.1	Revised ARR for FY18-BESCO's Submission	72
5.2	Capital Investment for FY-18 BESCO's Submission	74
5.3	Midyear No of IP sets Installations and IP Set Consumption	85
5.4	Format for furnishing IP Sets Consumption	88
5.5	BESCO's Approved Sales	88
5.6	Approved & Actual Distribution Losses FY11 to FY16	90
5.7	Approved Distribution Losses for FY18	91
5.8	Power Purchase Cost as filed by BESCO for FY18	91
5.9	Approved Power Purchase Quantum and Cost for the State	94
5.10	Approved Power Purchase Cost of BESCO for FY18	94
5.11	Anticipated Capacity addition of RE Sources in FY18	95
5.12	Anticipated Energy from of RE Sources in FY18	96
5.13	Normative O&M expenses for FY18- BESCO's Submission	98
5.14	Revised O&M expenses for FY18- BESCO's Proposal	98
5.15	Approved O &M expenses for FY18 as per Tariff Order dtd 30-3-2016	98
5.16	Approved O &M expenses for FY18	100
5.17	Depreciation FY18- BESCO's Submission	101
5.18	Approved Depreciation for FY18	102
5.19	Interest on Capital Loan-BESCO's Proposal	103
5.20	Approved interest on Loans for FY18	104
5.21	Interest on Working Capital-BESCO's Submission	105
5.22	Approved interest on Working Capital for FY18	106
5.23	Interest on Consumer Security Deposits- BESCO's Submission	106
5.24	Approved Interest on Consumer Security Deposits for FY18	107
5.25	Approved Interest and Finance Charges for FY18	108
5.26	Return on Equity- BESCO's Submission	109
5.27	Status of Debt Equity Ratio for FY 18	110
5.28	Approved Return on Equity for FY18	110
5.29	Approved Revised ARR for FY18	114
5.30	Approved Segregation of ARR-FY18	115
5.31	Approved revised ARR for Distribution Business –FY18	115
5.32	Approved ARR for Retail Supply Business-FY18	116
5.33	Revenue Gap for FY18	117
6.1	Revenue Deficit for FY18	129
6.2	Wheeling Charges	162

LIST OF ANNEXURES

SL.NO.	DETAILS OF ANNEXURES	Page No.
1	ESCOM's Total Approved Power Purchase for FY18	260
2	BESCOM's Approved Power Purchase for FY18	263
3	Proposed and Approved Revenue and Realisation and Level of Cross Subsidy for FY18 of BESCOM	266
4	Electricity Tariff – 2017	267

ABBREVIATIONS	
AEH	All Electric Home
ABT	Availability Based Tariff
A & G	Administrative & General Expenses
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal for Electricity
BBMP	Bruhut Bangalore Mahanagara Palike
BDA	Bangalore Development Authority
BESCOM	Bangalore Electricity Supply Company
BST	Bulk Supply Tariff
BWSSB	Bangalore Water Supply & Sewerage Board
CAPEX	Capital Expenditure
CCS	Consumer Care Society
CERC	Central Electricity Regulatory Commission
CEA	Central Electricity Authority
CESC	Chamundeshwari Electricity Supply Corporation
CPI	Consumer Price Index
CWIP	Capital Work in Progress
DA	Dearness Allowance
DCB	Demand Collection & Balance
DPR	Detailed Project Report
EA	Electricity Act
EC	Energy Charges
ERC	Expected Revenue From Charges
ESAAR	Electricity Supply Annual Accounting Rules
ESCOMs	Electricity Supply Companies
FA	Financial Adviser
FKCCI	Federation of Karnataka Chamber of Commerce & Industry
FR	Feasibility Report
FoR	Forum of Regulators
FY	Financial Year
GESCOM	Gulbarga Electricity Supply Company

GFA	Gross Fixed Assets
GoI	Government Of India
GoK	Government Of Karnataka
GRIDCO	Grid Corporation
HESCOM	Hubli Electricity Supply Company
HP	Horse Power
HRIS	Human Resource Information System
ICAI	Institute of Chartered Accountants of India
IFC	Interest and Finance Charges
IW	Industrial Worker
IP SETS	Irrigation Pump Sets
KASSIA	Karnataka Small Scale Industries Association
KEB	Karnataka Electricity Board
KER Act	Karnataka Electricity Reform Act
KERC	Karnataka Electricity Regulatory Commission
KM/Km	Kilometre
KPCL	Karnataka Power Corporation Limited
KPTCL	Karnataka Power Transmission Corporation Limited
KV	Kilo Volts
KVA	Kilo Volt Ampere
KW	Kilo Watt
KWH	Kilo Watt Hour
LDC	Load Despatch Centre
MAT	Minimum Alternate Tax
MD	Managing Director
MESCOM	Mangalore Electricity Supply Company
MFA	Miscellaneous First Appeal
MIS	Management Information System
MoP	Ministry of Power
MU	Million Units
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NFA	Net Fixed Assets
NLC	Neyveli Lignite Corporation
NCP	Non Coincident Peak
NTP	National Tariff Policy
O&M	Operation & Maintenance
P & L	Profit & Loss Account
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
PRDC	Power Research & Development Consultants
REL	Reliance Energy Limited
R & M	Repairs and Maintenance
ROE	Return on Equity
ROR	Rate of Return

ROW	Right of Way
RPO	Renewable Purchase Obligation
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition System
SERCs	State Electricity Regulatory Commissions
SLDC	State Load Despatch Centre
SRLDC	Southern Regional Load Dispatch Centre
STU	State Transmission Utility
TAC	Technical Advisory Committee
TCC	Total Contracted Capacity
T&D	Transmission & Distribution
TCs	Transformer Centres
TR	Transmission Rate
WPI	Wholesale Price Index
WC	Working Capital