



सत्यमेव जयते

**Ministry of Power**  
Government of India

# **State Distribution Utilities Seventh Annual Integrated Rating**

**OCTOBER, 2019**





# State Distribution Utilities Seventh Annual Integrated Rating

# OCTOBER, 2019



आर. के. सिंह  
R. K. SINGH



विद्युत एवं नवीन और नवीकरणीय ऊर्जा  
राज्य मंत्री (स्वतंत्र प्रभार) एवं  
कौशल विकास और उद्यमशीलता राज्य मंत्री  
भारत सरकार

Minister of State (Independent Charge)  
for Power and New & Renewable Energy and  
Minister of State in the Ministry of Skill Development  
and Entrepreneurship  
Government of India



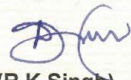
**Message**

Power is one of the most critical components of infrastructure and is crucial for the economic growth of the country. The Indian power sector has witnessed exponential growth in the last few years on various fronts such as generation and transmission capacities, village & household electrification and energy efficiency.

The Government of India have instituted several measures to make the power sector an engine to boost investment, growth and employment in India. All villages have been connected and electrification of all households has been completed in all States except a few small pockets in two states. India has transformed itself from power deficit country to an exporter of power. We have added more than 1 Lakh MW of generation capacity in the last five years. We have added more than one lakh circuit Km to the transmission system and now the whole country is on one grid at one frequency seamlessly transmitting power from one place to other place. The highest transmission line in the world in Ladakh and Kargil has recently been dedicated by the Hon'ble Prime Minister to the Nation.

A strong and efficient distribution sector is crucial for the development of a robust, self-sustaining power sector. The State Power Sector entities play a vital role in power distribution in India. Govt. of India is supporting States for strengthening distribution system necessary for providing 24X7 power supply to all households through DDUGJY & IPDS. In what was the biggest programme in the world for expanding access to electricity. We have electrified 26 Million households in a short time-frame of 15-18 months under our Saubhagya Programme. Under the UDAY scheme of Govt. of India, the losses of DISCOMS has come down. MoP is also working on Distribution Perspective Plan for Power Distribution Sector aimed at integrating the planned reforms and improved processes of operations to serve the consumers. I am confident that with the implementation of these programmes, the distribution sector will be able to improve and perform to its true potential to serve the people of India.

I am happy that the Seventh Annual Integrated Rating exercise covering 41 State Power Distribution Utilities for the rating period FY 2017-18 has been completed with the enthusiastic participation of all the utilities. I congratulate all stakeholders, especially the state distribution utilities for their active role and support in successfully completing the Seventh Annual Integrated rating exercise. The Indian Power sector will benefit from a fair and accurate assessment of the true position of the distribution sector, which will help in assessing and improving its performance. This will also assist State Governments, lending institutions and other stakeholders to take important decisions.

  
(R.K. Singh) 8/8/18



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### Message

Power sector is critically important infrastructure sector and plays a vital role in the growth, economic development and societal empowerment of the country. Although the sector has been long facing severe financial and structural stress for quite some time, transformational change in power generation and transmission has made India meet its power requirement quite satisfactorily in recent times. Challenges, however, persist in the distribution segment, and there is need for strengthening the finances and profitability of distribution utilities wherein states have to play a major role.

Government of India has drawn up various schemes like IPDS, Saubhagya, DDUGJY, UDAY, etc. for bringing about the necessary improvements in the distribution sector. There is a need for leveraging these investments to incentivise reforms in the distribution segment to win the last frontier in the power sector.

MoP had formulated the Integrated Rating Methodology in July 2012 to enable annual assessment of state distribution utilities performance on a range of parameters. MoP has also undertaken a periodic review of the integrated rating methodology from time to time for bringing about improvements based on the suggestions received from utilities and other stakeholders and also keeping in view various developments in the sector.

I am sure that the valuable data presented during the seventh ratings recently carried out would provide deeper insights on the performance against various technical as well as financial parameters and enable management of the utilities to take appropriate measures to achieve higher operational efficiency and financial self-sustainability.

I am happy to note that the latest Seventh Annual Integrated Rating exercise covering 41 State Power Distribution Utilities for the rating period FY 2017-18 has been completed on a timely basis with the active co-operation and support of all the utilities. I would like to express my appreciation for the efforts made by the officials of MoP, PFC and State Distribution Utilities in making this rating exercise successful.

  
(Subhash Chandra Garg)







**Seventh Annual Integrated Ratings  
of State Power Distribution Utilities  
as per the Framework approved by Ministry of Power**

Submitted by :  
ICRA Limited  
and  
Credit Analysis and Research Ltd



**CARE Ratings**  
Professional Risk Opinion

**OCTOBER, 2019**



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## **Section I**

### **Background, Utilities Covered and Scoring Methodology**







## BACKGROUND

Ministry of Power had formulated an Integrated Rating Methodology in July 2012 for evaluating performance of State Power Distribution utilities on a range of parameters covering operational, financial, regulatory and reform parameters. The rating exercise is carried out on annual basis and presently covers 41 state distribution utilities spread across 22 states. State Power/ Energy Departments and private sector distribution utilities are however not covered under the integrated rating exercise. ICRA and CARE are the designated credit rating agencies and have been assigned 21 and 20 utilities respectively. MoP has mandated Power Finance Corporation (PFC) to co-ordinate the rating exercise.

So far, six integrated rating exercises covering FY 2012, FY 2013, FY 2014, FY 2015, FY 2016 and FY 2017 have been completed. The first integrated ratings were released / declared by MoP in March 2013, the second in February 2014, the third in August 2015, the fourth in June 2016, the fifth in May 2017 and the last i.e. sixth integrated ratings were released by Hon'ble Minister of State (IC) for Power and New & Renewable Energy on 3<sup>rd</sup> July 2018.

The Integrated Rating Methodology is reviewed by MoP periodically. A review of rating methodology was taken up by MoP and based on the review, certain modifications providing for revised benchmark for power purchase cost and auditors qualifications were approved by MOP in March 2019. The Seventh Integrated Ratings, covering the rating year FY 2018, have been carried out under the revised integrated rating methodology.



## UTILITIES COVERED BY ICRA & CARE

S.No.	Names of Distribution Utilities
<b>Utilities graded by ICRA</b>	
1	Dakshin Gujarat Vij Company Limited
2	Uttar Gujarat Vij Company Limited
3	Madhya Gujarat Vij Company Limited
4	Paschim Gujarat Vij Company Limited
5	Chamundeshwari Electricity Supply Corporation Ltd.
6	Bangalore Electricity Supply Company Limited
7	Maharashtra State Electricity Distribution Company Ltd
8	Mangalore Electricity Supply Company Limited
9	Punjab State Power Corporation Limited
10	Hubli Electricity Supply Company Limited
11	North Bihar Power Distribution Co. Ltd.
12	Gulbarga Electricity Supply Company Limited
13	South Bihar Power Distribution Co. Ltd.
14	West Bengal State Electricity Distribution Company Ltd
15	Tamil Nadu Generation and Distribution Corporation
16	Assam Power Distribution Company Limited
17	Kanpur Electricity Supply Company Limited
18	Paschimanchal Vidyut Vitaran Nigam Limited
19	Madhyanchal Vidyut Vitran Nigam Limited
20	Purvanchal Vidyut Vitaran Nigam Limited
21	Dakshinanchal Vidyut Vitran Nigam Limited
<b>Utilities graded by CARE</b>	
22	Uttarakhand Power Corporation Limited
23	Himachal Pradesh State Electricity Board Limited
24	Eastern Power Distribution Company of AP Limited
25	Kerala State Electricity Board Limited
26	Southern Power Distribution Company of AP Limited
27	Southern Power Distribution Company of Telangana Limited
28	Madhya Pradesh Pash. Kshetra Vidyut Vitaran Co Ltd.
29	Northern Power Distribution Company of Telangana Limited
30	Dakshin Haryana Bijli Vitran Nigam Limited
31	Uttar Haryana Bijli Vitran Nigam Limited
32	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co Ltd
33	Jodhpur Vidyut Vitran Nigam Limited
34	Chhattisgarh State Power Distribution Company Ltd.
35	Ajmer Vidyut Vitran Nigam Limited
36	Madhya Pradesh Madhya Kshetra Vidyut Vitran Co Ltd
37	Jaipur Vidyut Vitran Nigam Limited
38	Meghalaya Power Distribution Corporation Limited
39	Manipur State Power Distribution Company Limited
40	Jharkhand Bijli Vitran Nigam Limited
41	Tripura State Electricity Corporation Limited



**RATING APPROACH / INPUTS**

The parameters that have been used for the rating are as follows:

S. No.	Parameters	Weightage / Maximum Score
<b>1</b>	<b>OPERATIONAL &amp; REFORM Parameters</b>	<b>52</b>
<b>I)</b>	<b>Operational related</b>	
i)	AT&C Losses	28,-4
ii)	Power purchase	5
iii)	Cost Efficiency	6
iv)	Quality of Service & Digital Payment Facility	6
<b>II)</b>	<b>Reform related</b>	
v)	Access to Supply	5
vi)	RPO Compliance	2
<b>2</b>	<b>EXTERNAL Parameters</b>	<b>15</b>
<b>I)</b>	<b>Regulatory</b>	<b>11,-19</b>
<b>II)</b>	<b>Govt. Support</b>	<b>4</b>
<b>3</b>	<b>FINANCIAL Parameters</b>	<b>33</b>
<b>I)</b>	<b>Ratios</b>	
<b>A</b>	Cost Coverage Ratio	15
<b>II)</b>	Sustainability	6
<b>III)</b>	Receivables	4
<b>IV)</b>	Payables	3
<b>V)</b>	Audited Accounts	5,-12
<b>VI)</b>	Audit Qualifications	0,-1
<b>VII)</b>	Default to Banks / FIs	0,-2
	<b>Total</b>	<b>100</b>

Scores have been assigned on the basis of performance of state distribution utilities against various parameters broadly classified under i) Operational & Reform parameters ii) External Parameters and iii) Financial parameters. The evaluation of certain parameters covers current levels of performance as well as relative improvement from year to year. The operational and reform parameters viz. AT&C Losses, Efficiency of Power Purchase cost, digital payment facility, etc. carry weightage of 52%. The financial parameters viz. cost coverage ratio, payables, receivables, timely submission of audited accounts, etc. carry weightage of 33%. External parameters relating to regulatory environment, State Govt. subsidy support, etc. have been assigned weightage of 15%.

The methodology used in the current rating exercise takes into account the latest modifications in the rating methodology as approved by Ministry of Power (MoP) in March 2019. The Integrated Rating Methodology incorporating these modifications is given in Appendix. The modifications provide for revised benchmark for power purchase cost and auditors qualifications.



The rating has been based primarily on data submitted by the State distribution utilities / SEBs in response to questionnaires sent by the rating agencies. Other sources of data accessed include Audited Accounts, Annual Administrative Reports and Tariff Orders issued by the SERCs.

The data collected, as above, has been supplemented with meetings with key officials of the State distribution utilities / SEBs.



## **Section II**

### **Grading Scale & Utility-wise Grades**







## GRADING SCALE AND GRADES

Score Distribution	Grade	No. of Utilities	Grading Definition
Between 80 and 100	<b>A+</b>	<b>7</b>	Very High Operational and Financial Performance Capability
Between 65 and 80	<b>A</b>	<b>9</b>	High Operational and Financial Performance Capability
Between 50 and 65	<b>B+</b>	<b>9</b>	Moderate Operational and Financial Performance Capability
Between 35 and 50	<b>B</b>	<b>8</b>	Below Average Operational and Financial Performance Capability
Between 20 and 35	<b>C+</b>	<b>5</b>	Low Operational and Financial Performance Capability
Between 0 and 20	<b>C</b>	<b>3</b>	Very Low Operational and Financial Performance Capability

The grading scale of '**A+ to C**' adopted under MOP Integrated Rating Methodology is **different** from the normal rating scale adopted by Credit Rating Agencies (**AAA to D**) for credit rating purposes as the credit rating measures the degree of safety regarding timely servicing of financial obligations based on "probability of default"; *however*, integrated rating reflects the operational and financial health of the distribution entities based on the rating framework approved by Ministry of Power. Further, normal credit rating assigned by CRAs for distribution utilities entails comparison with other corporates, as compared to the integrated rating exercise wherein comparison of the entity is done with other distribution utilities only.



## UTILITY - WISE GRADES

S.No.	Name of Utility	State	Rating Agency	7th IR Grade (FY 2018)
1	Dakshin Gujarat Vij Company Limited	Gujarat	ICRA	A+
2	Uttar Gujarat Vij Company Limited	Gujarat	ICRA	A+
3	Madhya Gujarat Vij Company Limited	Gujarat	ICRA	A+
4	Bangalore Electricity Supply Company Limited	Karnataka	ICRA	A+
5	Paschim Gujarat Vij Company Limited	Gujarat	ICRA	A+
6	Mangalore Electricity Supply Company Limited	Karnataka	ICRA	A+
7	Uttarakhand Power Corporation Limited	Uttarakhand	CARE	A+
8	Chamundeshwari Electricity Supply Corporation Ltd.	Karnataka	ICRA	A
9	Punjab State Power Corporation Limited	Punjab	ICRA	A
10	Eastern Power Distribution Company of AP Limited	Andhra Pradesh	CARE	A
11	Dakshin Haryana Bijli Vitran Nigam Limited	Haryana	CARE	A
12	Gulbarga Electricity Supply Company Limited	Karnataka	ICRA	A
13	Maharashtra State Electricity Distribution Company Ltd	Maharashtra	ICRA	A
14	Madhya Pradesh Pash. Kshetra Vidyut Vitaran Co Ltd.	Madhya Pradesh	CARE	A
15	Himachal Pradesh State Electricity Board Limited	Himachal Pradesh	CARE	A
16	Uttar Haryana Bijli Vitran Nigam Limited	Haryana	CARE	A
17	Assam Power Distribution Company Limited	Assam	ICRA	B+
18	Kerala State Electricity Board Limited	Kerala	CARE	B+
19	Southern Power Distribution Company of AP Limited	Andhra Pradesh	CARE	B+
20	Chhattisgarh State Power Distribution Company Ltd.	Chhattisgarh	CARE	B+
21	West Bengal State Electricity Distribution Company Ltd	West Bengal	ICRA	B+
22	North Bihar Power Distribution Co. Ltd.	Bihar	ICRA	B+
23	Southern Power Distribution Company of Telangana Limited	Telangana	CARE	B+
24	Kanpur Electricity Supply Company Limited	Uttar Pradesh	ICRA	B+
25	South Bihar Power Distribution Co. Ltd.	Bihar	ICRA	B+
26	Hubli Electricity Supply Company Limited	Karnataka	ICRA	B
27	Jaipur Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
28	Ajmer Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
29	Northern Power Distribution Company of Telangana Limited	Telangana	CARE	B
30	Jodhpur Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
31	Paschimanchal Vidyut Vitaran Nigam Limited	Uttar Pradesh	ICRA	B
32	Jharkhand Bijli Vitran Nigam Limited	Jharkhand	CARE	B
33	Tamil Nadu Generation and Distribution Corporation	TamilNadu	ICRA	B
34	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Co Ltd	Madhya Pradesh	CARE	C+
35	Madhyanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	ICRA	C+
36	Purvanchal Vidyut Vitaran Nigam Limited	Uttar Pradesh	ICRA	C+
37	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co Ltd	Madhya Pradesh	CARE	C+
38	Dakshinanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	ICRA	C+
39	Tripura State Electricity Corporation Limited	Tripura	CARE	C
40	Manipur State Power Distribution Company Limited	Manipur	CARE	C
41	Meghalaya Power Distribution Corporation Limited	Meghalaya	CARE	C



## Section III

### Utility Rating Summary (region-wise)

#### Index

S.No.	Name of Utility	State	Pg. No.
<b>NORTHERN REGION</b>			
1	Dakshin Haryana Bijli Vitran Nigam Limited	Haryana	13
2	Uttar Haryana Bijli Vitran Nigam Limited	Haryana	14
3	Himachal Pradesh State Electricity Board Limited	Himachal Pradesh	15
4	Punjab State Power Corporation Limited	Punjab	16
5	Ajmer Vidyut Vitran Nigam Limited	Rajasthan	17
6	Jodhpur Vidyut Vitran Nigam Limited	Rajasthan	18
7	Jaipur Vidyut Vitran Nigam Limited	Rajasthan	19
8	Uttarakhand Power Corporation Limited	Uttarakhand	20
9	Kanpur Electricity Supply Company Limited	Uttar Pradesh	21
10	Paschimanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	22
11	Madhyanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	23
12	Purvanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	24
13	Dakshinanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	25
<b>EASTERN &amp; NORTH-EASTERN REGION</b>			
14	Assam Power Distribution Company Limited	Assam	26
15	North Bihar Power Distribution Company Limited	Bihar	27
16	South Bihar Power Distribution Company Limited	Bihar	28
17	Jharkhand Bijli Vitran Nigam Limited	Jharkhand	29
18	Manipur State Power Distribution Company Limited	Manipur	30
19	Meghalaya Power Distribution Corporation Limited	Meghalaya	31
20	Tripura State Electricity Corporation Limited	Tripura	32
21	West Bengal State Electricity Distribution Company Limited	West Bengal	33
<b>WESTERN REGION</b>			
22	Chhattisgarh State Power Distribution Company Limited	Chhattisgarh	34
23	Uttar Gujarat Vij Company Limited	Gujarat	35
24	Dakshin Gujarat Vij Company Limited	Gujarat	36
25	Madhya Gujarat Vij Company Limited	Gujarat	37
26	Paschim Gujarat Vij Company Limited	Gujarat	38
27	Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited	Madhya Pradesh	39
28	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited	Madhya Pradesh	40
29	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited	Madhya Pradesh	41
30	Maharashtra State Electricity Distribution Company Limited	Maharashtra	42
<b>SOUTHERN REGION</b>			
31	Eastern Power Distribution Company of Andhra Pradesh Limited	Andhra Pradesh	43
32	Southern Power Distribution Company of Andhra Pradesh Limited	Andhra Pradesh	44
33	Bangalore Electricity Supply Company Limited	Karnataka	45
34	Mangalore Electricity Supply Company Limited	Karnataka	46
35	Gulbarga Electricity Supply Company Limited	Karnataka	47
36	Chamundeshwari Electricity Supply Corporation Limited	Karnataka	48
37	Hubli Electricity Supply Company Limited	Karnataka	49
38	Kerala State Electricity Board Limited	Kerala	50
39	Tamil Nadu Generation & Distribution Corporation Limited	Tamil Nadu	51
40	Southern Power Distribution Company of Telangana Limited	Telangana	52
41	Northern Power Distribution Company of Telangana Limited	Telangana	53







## DAKSHIN HARYANA BIJLI VITRAN NIGAM LIMITED

### Background

Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL) is a power distribution company which is responsible for the distribution and retail supply of electricity in the South Zone of Haryana comprising of Bhiwani, Faridabad, Gurgaon, Hissar, Jind, Narnaul and Sirsa circles. DHBVNL caters to around 32,90,104 consumers including domestic, commercial, industrial, agricultural and others in FY 2018. As on March 31, 2018, the Government of Haryana (GoH) holds 83.69% of shares of DHBVNL while the balance 16.31% stake is held by Haryana Vidyut Prasaran Nigam Limited (HVPNL).

### Key Strengths

- AT&C losses improved from 23.10% in FY 2017 to 19.16% in FY 2018
- Healthy collection efficiency at 100% in FY 2018
- Satisfactory cost coverage of 0.99x in FY 2018
- Conducive regulatory environment with timely issue of tariff order and true-up order
- Reduction in debt and decrease in interest cost in FY 2018 due to implementation of UDAY
- Timely payment of subsidy by the State Government
- Timely submission of audited accounts for FY 2018
- Low collection period of 42 days in FY 2018

### Key Concerns

- Low billing efficiency of 80.84% in FY 2018 though improved from 77.50% in FY 2017
- High power purchase cost at ₹ 4.66 per unit in FY 2018 (PY: ₹ 4.67 per unit)
- High employee cost standing at 8.2% of total revenue of FY 2018 (PY: 7.29%)

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Billing efficiency to be improved through various administrative and technical measures
- Reduction in power purchase cost





## UTTAR HARYANA BIJLI VITRAN NIGAM LIMITED

### Background

Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL) is a power distribution company which is responsible for the distribution and retail supply of electricity in the North Zone of Haryana comprising of Ambala, Yamunanagar, Kurukshetra, Karnal, Sonapat, Rohtak, Panipat, Jhajjar and Kaithal circles. UHBVNL catered to around 2.79 million consumers including domestic, commercial, industrial, agricultural and others in FY 2018. As on March 31, 2018, the Government of Haryana (GoH) holds 91% of the shares of UHBVNL while the remaining shares are held by Haryana Vidyut Prasaran Nigam Limited (HVPNL).

### Key Strengths

- AT&C losses improved from 31.97% in FY 2017 to 25.16% in FY 2018, though remains high
- Improvement in collection efficiency to 99.53% in FY 2018 (PY: 96.99%)
- Satisfactory cost coverage of 0.97x in FY 2018
- Timely submission of audited accounts for FY 2018
- Timely issue of tariff order, true-up order and filing of tariff petition
- Timely payment of subsidy by the State Government
- Reduction in debt levels and decrease in interest cost in FY 2018 due to implementation of UDAY

### Key Concerns

- Low billing efficiency of 75.19% in FY 2018 though it improved from 70.14 % in FY 2017
- High power purchase cost at ₹ 4.69 per unit in FY 2018 (PY: ₹ 4.76 per unit)
- High employee cost standing at 9.50% of total revenue of FY 2018 (PY:8.52%)

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Billing efficiency to be improved through various administrative and technical measures
- Reduction in power purchase cost
- Rationalization of the employee cost







## HIMACHAL PRADESH STATE ELECTRICITY BOARD LIMITED

### Background

The erstwhile Himachal Pradesh State Electricity Board (HPSEB) was constituted in the year 1971. Erstwhile HPSEB carried out functions of generation, transmission and distribution for the state of Himachal Pradesh up to June 10, 2010. In June 2010, Government of Himachal Pradesh (GoHP), transferred the functions of distribution, trading and generation of electricity to Himachal Pradesh State Electricity Board Limited (HPSEBL) and the function of evacuation of power by transmission lines to Himachal Pradesh Power Transmission Company Limited (HPPTCL), vide the Himachal Pradesh Power Sector Reforms Transfer Scheme, 2010. A separate generation company for execution of new projects in state sector was already created by GoHP. HPSEBL is responsible for the development (planning, designing, and construction), operation and maintenance of power distribution system in Himachal Pradesh with inherent trading functions. Ownership and O&M of generating stations of erstwhile HPSEB and new commissioned projects was also given to HPSEBL.

### Key Strengths

- Healthy cost coverage of 1.05 in FY 2018 (PY: 1.0)
- Improvement in AT&C losses to 11.8% in FY 2018 (PY: 15.4%)
- Improvement in collection efficiency to 100% in FY 2018 from 95.56% in FY 2017
- Satisfactory billing efficiency at 88.17% in FY 2018
- Conducive regulatory environment including adoption of MYT framework and timely filing of tariff petition
- Low cost of power procurement due to significant sourcing of power through hydro power plants

### Key Concerns

- Audited financials for FY 2018 not available
- High albeit improved payables period of 105 days in FY 2018 (PY:163 days)
- High operating cost primarily due to high employee expenses and relatively high O&M cost
- Delay in payment of subsidy by the State Government

### Key Actionables

- Better management of creditors to reduce the creditor days
- Timely preparation of audited accounts
- Rationalization of employee expenses and O&M cost
- Timely realization of entire subsidy receivable from the State Government





## PUNJAB STATE POWER CORPORATION LIMITED

### Background

Punjab State Electricity Board was unbundled into two successor entities on April 16, 2010 i.e. PSPCL and PSTCL; PSPCL entrusted with Generation, Trading and Distribution functions and PSTCL entrusted with Transmission and State Load Despatch functions. PSPCL was formed pursuant to the implementation of Punjab Power Sector Reforms Transfer Scheme (Transfer Scheme) by the Government of Punjab.

### Key Strengths

- Improvement in cost coverage
- Power purchase cost is lower than benchmark
- Audited accounts for FY 2018 made available before 30 September 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational
- Low receivable and payable days
- Timely filing of tariff petition (including MYT petition); True-up completed for FY 2017

### Key Concerns

- Lower collection efficiency impacting AT&C loss adversely
- Subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers; coupled with delay in receipt of subsidy
- Low cost efficiency on account of high employee costs

### Key Actionables

- Improvement in AT&C loss levels
- Improvement in cost coverage through rationalization of power & fuel and employee cost





## AJMER VIDYUT VITRAN NIGAM LIMITED

### Background

Ajmer Vidyut Vitran Nigam Limited (AVVNL) is an unbundled state power distribution company of erstwhile Rajasthan State Electricity Board (RSEB). As per the Rajasthan Power Sector Reforms Act, 1999 of Government of Rajasthan (GoR), the erstwhile RSEB was unbundled into a Generation Company, a Transmission Company and three Distribution Companies (Discoms) w.e.f. July 19, 2000. AVVNL covers 11 districts of Rajasthan namely Ajmer, Bhilwara, Nagaur, Sikar, Jhunjhunu, Udaipur, Banswara, Chittorgarh, Rajsamand, Doongarpur and Pratapgarh.

### Key Strengths

- Improvement in the AT&C loss from 25.19% in FY 2017 to 23.10% in FY 2018 due to improvement in billing efficiency
- Take-over of 75 per cent of the debt of AVVNL as of September 30, 2015 by GoR under UDAY scheme
- Timely filing of tariff petition for FY 2020
- Reporting of positive PAT and no defaults to Banks & FIs in FY 2018

### Key Concerns

- Low cost coverage ratio of 0.80x in FY 2018 (PY: 0.88x)
- Low billing efficiency of 79.85% in FY 2018 (PY: 77.90%)
- Low collection efficiency at 96.30% in FY 2018 though improved from 96.03% in FY 2017
- High power purchase cost at ₹ 4.76 per unit in FY 2018 (PY: ₹ 4.59 per unit)

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Improvement in collection efficiency
- Billing efficiency to be improved through various administrative and technical measures
- Cost coverage to be improved through suitable tariff increase and curtailment of losses



## JODHPUR VIDYUT VITRAN NIGAM LIMITED

### Background

Jodhpur Vidyut Vitran Nigam Limited (JdVVNL) is an unbundled state power distribution company of erstwhile Rajasthan State Electricity Board (RSEB). As per the Rajasthan Power Sector Reforms Act, 1999 of Government of Rajasthan (GoR), the erstwhile RSEB was unbundled into a Generation Company, a Transmission Company and three Distribution Companies (Discoms) with effect from July 19, 2000. JdVVNL covers 10 districts viz. Jodhpur, Jaisalmer, Bikaner, Sirohi, Jalore, Barmer, Pali, Churu, Hanumangarh and Shriganganagar.

### Key Strengths

- Improvement in the AT& C loss from 26.16% in FY 2017 to 23.43% in FY 2018
- Timely filing of tariff petition for FY 2020
- Reporting of positive PAT and no defaults to Banks & FIs in FY 2018

### Key Concerns

- Low billing efficiency of 80.67% in FY 2018 (PY: 78.31%)
- Low collection efficiency at 94.92% in FY 2018 though improved from 94.29% in FY 2017
- High power purchase cost at ₹ 4.69 per unit in FY 2018 (PY: ₹ 4.56 per unit)
- Low cost coverage ratio of 0.76x in FY 2018 (PY: 0.87x)
- High untreated revenue gap in ARR order for FY 2019

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Improvement in collection efficiency
- Billing efficiency to be improved through various administrative and technical measures
- Timely issuance of tariff order by RERC
- Timely receipt of tariff subsidies
- Cost coverage to be improved through suitable tariff increase and curtailment of losses



## JAIPUR VIDYUT VITRAN NIGAM LIMITED

### Background

Jaipur Vidyut Vitran Nigam Limited (JVVNL) is an unbundled state power distribution company of erstwhile Rajasthan State Electricity Board (RSEB). As per the Rajasthan Power Sector Reforms Act, 1999 of Government of Rajasthan (GoR), the erstwhile RSEB was unbundled into a Generation Company, a Transmission Company and three Distribution Companies (Discoms) with effect from July 19, 2000. JVVNL covers the 12 districts of Rajasthan namely Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Kota, Bundi, Baran, Jhalawar, Sawaimadhopur, Tonk and Karoli.

### Key Strengths

- Improvement in AT&C Losses to 25.17% in FY 2018 (PY: 29.80%)
- Timely filing of tariff petition for FY 2020
- Take-over of 75 per cent of the debt of JVVNL as of September 30, 2015 by GoR under UDAY scheme
- Implementation of key reform measures such as digital payments

### Key Concerns

- Low billing efficiency of 78.94% in FY 2018 (PY: 74.52%)
- Low collection efficiency at 94.80% in FY 2018 though improved from 94.21% in FY 2017
- High power purchase cost at ₹ 4.68 per unit in FY 2018 (PY: ₹ 4.52 per unit)
- Low cost coverage ratio of 0.82x in FY 2018 (PY: 0.87x)

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Improvement in collection efficiency
- Billing efficiency to be improved through various administrative and technical measures
- Timely receipt of tariff subsidies
- Cost coverage to be improved through suitable tariff increase and curtailment of losses





## UTTARAKHAND POWER CORPORATION LIMITED

### Background

Uttarakhand Power Corporation Limited (UPCL), formerly Uttaranchal Power Corporation Limited was incorporated under the Companies Act, 1956 on February 12, 2001 consequent upon the formation of the State of Uttaranchal. UPCL was entrusted to cater to the Transmission & Distribution functions inherited after the de-merger from Uttar Pradesh Power Corporation Limited since April 01, 2001. On June 01, 2004, Power Transmission Corporation of Uttarakhand Limited was formed to maintain and operate Transmission lines and substations while UPCL continue to cater to sub-transmission/distribution lines in the State. UPCL is a company wholly owned by the State Government and operates as the sole distribution licensee engaged in the business of distribution and retail supply of power in the State.

### Key Strengths

- Relatively low AT&C losses of 15.8% in FY 2018 backed by healthy collection efficiency
- Satisfactory cost coverage of 0.95x in FY 2018 though reduced from 0.98x in FY 2017
- No reliance on subsidy support from the State Government
- Adoption of MYT, timely filing of tariff petition & issue of tariff order & true-up order
- Lower power purchase cost of ₹ 3.83 per unit in FY 2018 (PY: ₹ 3.55 per unit)
- High fixed asset creation as reflected in fixed assets to total debt ratio of 1.70x
- Low receivables of 22 days in FY 2018 (PY: 28 days)

### Key Concerns

- Low billing efficiency of 84.8% in FY 2018 though improved from 83.3% in FY 2017
- High O&M and employee costs
- High payable days of 158 days in FY 2018 (PY: 174 days)

### Key Actionables

- Improvement in Billing Efficiency
- Maintain low AT&C losses and sustenance of high collection efficiency
- Better management of creditors
- Rationalize the employee costs and operations & maintenance expenses



**B+**

## KANPUR ELECTRICITY SUPPLY COMPANY LIMITED

### Background

Erstwhile UPSEB was unbundled under the first reforms transfer scheme dated 14<sup>th</sup> Jan 2000, into three separate entities: Uttar Pradesh Power Corporation Limited (UPPCL) – vested with the function of Transmission and Distribution within the State; Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVNL) – vested with the function of Thermal Generation within the State; and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) – vested with the function of Hydro Generation within the State. Through another Transfer Scheme dated 15th January 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956. Subsequently, four new distribution companies were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme 2003 namely Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL).

### Key Strengths

- Audited accounts for FY2018 made available in October 2018
- Positive PAT reported in last three years in spite of nil subsidy support
- Improving AT&C loss levels
- Competitive cost of power purchase
- Employee cost efficiency within benchmark levels

### Key Concerns

- Cost coverage has deteriorated over previous year and is less than 1 during FY 2018
- Tariff petition for FY 2020 not filed
- Regulatory assets carried over for more than 3 years
- Significantly stretched receivable days

### Key Actionables

- Timely filing of Tariff Petition
- Improvement in AT&C loss levels
- Fuel and Power Purchase Cost Adjustment to be implemented (either monthly or quarterly)
- Improvement in cost coverage through rationalization of power & fuel and O&M costs





## PASCHIMANCHAL VIDYUT VITRAN NIGAM LIMITED

### Background

Erstwhile UPSEB was unbundled under the first reforms transfer scheme dated 14th Jan 2000, into three separate entities: Uttar Pradesh Power Corporation Limited (UPPCL) – vested with the function of Transmission and Distribution within the State; Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) – vested with the function of Thermal Generation within the State; and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) – vested with the function of Hydro Generation within the State. Through another Transfer Scheme dated 15th January 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956. Subsequently, four new distribution companies were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme 2003 namely Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL).

### Key Strengths

- Audited accounts for FY 2018 made available in December 2018
- Subsidy booked was received during the year
- Competitive cost of power purchase

### Key Concerns

- Weak Cost coverage of 0.83x in FY 2018
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 26.0% in FY 2018
- Significantly stretched receivable days
- Tariff petition for FY 2020 not filed
- Regulatory assets carried over for more than 3 years

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency and collection efficiency
- Improving cost coverage through tariff rationalization
- Timely filing of Tariff Petition, issuance of tariff order; timely filing of true-up petition
- Fuel and Power Purchase Cost Adjustment to be implemented (either monthly or quarterly)







## MADHYANCHAL VIDYUT VITRAN NIGAM LIMITED

### Background

Erstwhile UPSEB was unbundled under the first reforms transfer scheme dated 14th Jan 2000, into three separate entities: Uttar Pradesh Power Corporation Limited (UPPCL) – vested with the function of Transmission and Distribution within the State; Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) – vested with the function of Thermal Generation within the State; and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) – vested with the function of Hydro Generation within the State. Through another Transfer Scheme dated 15th January 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956. Subsequently, four new distribution companies were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme 2003 namely Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL).

### Key Strengths

- Audited accounts for FY 2018 made available in September 2018
- Subsidy booked was received during the year
- Competitive cost of power purchase

### Key Concerns

- Weak Cost coverage of 0.70x in FY 2018
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 45.3% in FY 2018
- Significantly stretched receivable and payable days
- Tariff petition for FY 2020 not filed
- Regulatory assets carried over for more than 3 years

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency and collection efficiency
- Improving cost coverage through tariff rationalization
- Improvement in receivable and payable days
- Timely filing of Tariff Petition and issuance of tariff order; timely filing of true-up petition
- Fuel and Power Purchase Cost Adjustment to be implemented (either monthly or quarterly)





## PURVANCHAL VIDYUT VITRAN NIGAM LIMITED

### Background

Erstwhile UPSEB was unbundled under the first reforms transfer scheme dated 14th Jan 2000, into three separate entities: Uttar Pradesh Power Corporation Limited (UPPCL) – vested with the function of Transmission and Distribution within the State; Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) – vested with the function of Thermal Generation within the State; and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) – vested with the function of Hydro Generation within the State. Through another Transfer Scheme dated 15th January 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956. Subsequently, four new distribution companies were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme 2003 namely Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL).

### Key Strengths

- Audited accounts for FY 2018 made available in September 2018
- Subsidy booked was received during the year
- Competitive cost of power purchase
- Low employee costs, employee cost efficiency stood at 2.8% in FY2018

### Key Concerns

- Weak Cost coverage of 0.65x in FY 2018
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 47.9% in FY 2018
- Significantly stretched receivable and payable days
- Tariff petition for FY 2020 not filed
- Regulatory assets carried over for more than 3 years

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency and collection efficiency
- Improving cost coverage through tariff rationalization
- Improvement in receivable and payable days
- Timely filing of Tariff Petition and issuance of tariff order; timely filing of true-up petition
- Fuel and Power Purchase Cost Adjustment to be implemented (either monthly or quarterly)





## DAKSHINANCHAL VIDYUT VITRAN NIGAM LIMITED

### Background

Erstwhile UPSEB was unbundled under the first reforms transfer scheme dated 14th Jan 2000, into three separate entities: Uttar Pradesh Power Corporation Limited (UPPCL) – vested with the function of Transmission and Distribution within the State; Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) – vested with the function of Thermal Generation within the State; and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) – vested with the function of Hydro Generation within the State. Through another Transfer Scheme dated 15th January 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956. Subsequently, four new distribution companies were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme 2003 namely Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL) and Purvanchal Vidyut Vitran Nigam Limited (PuVVNL).

### Key Strengths

- Audited accounts for FY 2018 made available in October 2018
- Subsidy booked was received during the year
- Competitive cost of power purchase
- Low employee costs, employee cost efficiency stood at 1.3% in FY 2018

### Key Concerns

- Weak Cost coverage of 0.70x in FY 2018
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 38.9% in FY 2018
- Significantly stretched receivable and payable days
- Tariff petition for FY 2020 not filed
- Regulatory assets carried over for more than 3 years

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency and collection efficiency
- Improving cost coverage through tariff rationalization
- Improvement in receivable and payable days
- Timely filing of Tariff Petition and issuance of tariff order; timely filing of true-up petition
- Fuel and Power Purchase Cost Adjustment to be implemented (either monthly or quarterly)



**B+**

## **ASSAM POWER DISTRIBUTION COMPANY LIMITED**

### **Background**

Assam Power Distribution Company Limited (APDCL) was formed in FY 2010 by merging three distribution entities, namely Lower, Central and Upper Assam Distribution Company, to carry out the function of distribution and retail sale of electricity in the entire state of Assam. Currently, APDCL is catering to over 33 lakh consumers in the State of Assam.

### **Key Strengths**

- Significant improvement in cost coverage
- Reduction in AT&C loss
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational
- Entire subsidy booked during FY 2018 received during the year
- Regulatory clarity in place, with the release of FY 2019 tariff order, true-up order for FY 2017, MYT order for FY 2017 to FY 2019 and timely filing of tariff petition for FY 2020

### **Key Concerns**

- High transmission charges leading to increase in power purchase costs
- High share of employee, O&M & admin costs and transmission charges compared to total revenue leads to an increase in average cost of supply
- Audit opinion not provided on the accounts for FY 2018 on account of lack of sufficient evidence provided by the discom

### **Key Actionables**

- To continue to improve AT&C loss levels
- To remove deficiencies in audited accounts
- To rationalize employee and O&M costs





## NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED

### Background

Under the new 'Bihar State Electricity Reforms Transfer Scheme 2012', the Bihar State Electricity Board (BSEB) has been unbundled into five companies w.e.f. November 1, 2012: Bihar State Power (Holding) Company Limited (BSPHCL), Bihar State Power Transmission Company Limited (BSPTCL), Bihar State Power Generation Company Limited (BSPGCL) and two distribution companies viz. South Bihar Power Distribution Company Limited (SBPDCL) and North Bihar Power Distribution Company Limited (NBPDCCL). BSPHCL owns the shares of the newly-incorporated four other companies.

### Key Strengths

- Timely receipt of subsidy from the State Government
- Regulatory clarity in place, with tariff order for FY 2019 in place and timely filing of tariff petition for FY 2020
- Timely availability of audited financial accounts for FY 2018
- Consistent improvement in AT&C losses over the past few years, although it still remains on the higher side at 29.77% in FY 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework operational
- Improvement in payables days to 52 in FY 2018, with the same showing a declining trend over the years

### Key Concerns

- Cost coverage remains less than 1 during FY 2018
- Receivables remain high at 110 days, although the same has shown a declining trend over the years
- Continued high dependence on subsidy support

### Key Actionables

- Reduction in AT&C loss level by focusing in areas having higher loss levels
- Improvement in cost coverage by effecting frequent tariff hikes
- Reduction in the power procurement costs by entering into long term PPAs with IPPs and through strict compliance of FPPCA mechanism
- Reduction in receivable days



**B+**

## **SOUTH BIHAR POWER DISTRIBUTION COMPANY LIMITED**

### **Background**

Under the new 'Bihar State Electricity Reforms Transfer Scheme 2012', the Bihar State Electricity Board (BSEB) has been unbundled into five companies w.e.f. November 1, 2012: Bihar State Power (Holding) Company Limited (BSPHCL), Bihar State Power Transmission Company Limited (BSPTCL), Bihar State Power Generation Company Limited (BSPGCL) and two distribution companies viz. South Bihar Power Distribution Company Limited (SBPDCL) and North Bihar Power Distribution Company Limited (NBPDCCL). BSPHCL owns the shares of the newly-incorporated four other companies.

### **Key Strengths**

- Regulatory clarity in place, with tariff order for FY 2019 in place and timely filing of tariff petition for FY 2020
- Timely receipt of subsidy from the State Government
- Timely availability of audited accounts for FY 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework operational
- Improvement in payables days to 56 days in FY 2018, with the same showing a declining trend over the years

### **Key Concerns**

- Continued high level of AT&C losses at 36.3% in FY 2018 though improved from 46% in FY 2017
- Cost coverage remains less than 1 during FY 2018
- Continued high dependence on subsidy support
- High power purchase cost at ₹ 4.69 per unit in FY 2018

### **Key Actionables**

- Reduction in AT&C loss level by focusing in areas having higher loss levels
- Improvement in cost coverage by effecting frequent tariff hikes
- Reduction in the power procurement costs by entering into long term PPAs with IPPs and through strict compliance of FPPCA mechanism



## **JHARKHAND BIJLI VITRAN NIGAM LIMITED**

### **Background**

Jharkhand State Electricity Board (JSEB) was constituted on 10th March 2001 under Section 5 of the Electricity (Supply) Act, 1948 as a result of the bifurcation of the erstwhile State of Bihar. JSEB has been engaged in electricity generation, transmission, distribution and related activities in the state of Jharkhand since then. The unbundling of JSEB has been approved by the Hon'ble Supreme Court on January 6, 2014. JSEB has been unbundled into 4 entities (Holding, Generation, Transmission and Distribution Company) and all the entities are operating independently as Jharkhand Urja Vikas Nigam Limited (JUVNL), Jharkhand Urja Utpadan Nigam Limited (JUUNL), Jharkhand Urja Sancharan Nigam Limited (JUSNL) and Jharkhand Bijli Vitran Nigam Limited (JBVNL) respectively. JBVNL has a consumer base of 30 lakh.

### **Key Strengths**

- Timely submission of audited accounts for FY 2018
- Timely filing of tariff petition for FY 2020
- State Government support in the form of revenue gap funding

### **Key Concerns**

- High AT&C losses at 32.48% in FY 2018
- Low billing efficiency of 80.5% in FY 2018
- High power purchase cost at ₹ 4.97 per unit in FY 2018
- Low cost coverage ratio of 0.82x in FY 2018

### **Key Actionables**

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Billing efficiency to be improved through various administrative and technical measures
- Rationalization of power purchase cost
- Cost coverage to be improved through suitable tariff increase and curtailment of losses



## MANIPUR STATE POWER DISTRIBUTION CORPORATION LIMITED

### Background

Manipur State Power Distribution Company Limited (MSPDCL) is a wholly owned subsidiary of Manipur State Power Company Limited (MSPCL). The MSPDCL is responsible for generation and distribution of electricity in the State of Manipur, which has a total area of 22,347 square kilometers with sixteen districts namely, Bishnupur, Imphal-West, Imphal-East, Thoubal, Kakching, Tamenglong, Kangpokpi, Senapati, Ukhul, Kamjong, Jiribam, Noney, Pherzawl, Churachandpur, Chandel, and Tengnoupal. As on March 31, 2018, MSPDCL serves about 3.26 lakh consumers of various categories.

### Key Strengths

- Improvement in AT&C losses and billing efficiency in the last 3 years
- Subsidy received on a regular basis

### Key Concerns

- Accounts for FY 2016, FY 2017 and FY 2018 are not available
- High power purchase cost at ₹ 5.15 per unit in FY 2018 and ₹ 5.07 per unit in FY 2017
- Delay in filing of tariff petition for FY 2020
- Default in repayment to one of the lenders

### Key Actionable Points

- Reduction in AT&C loss levels
- Timely preparation of annual accounts
- Timely filing of tariff petition
- Rationalization of power purchase cost





C

## MEGHALAYA POWER DISTRIBUTION CORPORATION LIMITED

### Background

Meghalaya Power Distribution Corporation Limited (MePDCL) has begun segregated commercial operations of power distribution as an independent entity from 1st April 2012 onwards. Previously, Meghalaya Energy Corporation Limited (MeECL) was the sole electricity utility in Meghalaya responsible for generation, transmission and distribution of electricity in the state.

### Key Strengths

- Adoption of MYT with timely filing of tariff petition and issuance of tariff order
- Satisfactory power purchase planning with over 90% of power being purchased through Long Term Power Purchase Agreements

### Key Concerns

- Absence of audited accounts for FY 2018
- High AT&C losses at 37.6% in FY 2018 (PY: 32.8%)
- Low billing efficiency of 64.8% in FY 2018 (PY: 67.3%)
- High power purchase cost at ₹ 5.88 per unit in FY 2018
- Continuous loss registered in last three years and low cost coverage ratio of 0.74x in FY 2018
- High collection and payable days (297 days and 327 days respectively in FY 2018)

### Key Actionables

- Reduction in AT&C loss level by focusing more on circles which have high AT&C losses
- Billing efficiency to be improved through various administrative and technical measures
- Audit of accounts to be finalized in a time bound manner
- Rationalization of power purchase cost
- Cost coverage to be improved through suitable tariff increase and curtailment of losses



C

## TRIPURA STATE ELECTRICITY CORPORATION LIMITED

### Background

Tripura State Electricity Corporation Limited (TSECL) is the sole electricity utility in Tripura responsible for generation, transmission and distribution of electricity in the state.

### Key Concerns

- No operational input provided for rating exercise
- Delay in submission of audited accounts
- Unfavorable regulatory environment, such as tariff petition not filed
- Unbundling not yet completed
- Weak cost coverage indicator

### Key Actionables

- Timely submission of information for rating exercise
- Timely audit of accounts and timely filing of tariff petition
- Unbundling of TSECL
- Cost coverage to be improved through suitable tariff increase, curtailment of losses and rationalization of costs



## WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

**B+**

### Background

The erstwhile West Bengal State Electricity Board (WBSEB) has been unbundled into West Bengal State Electricity Distribution Company Limited (WBSEDCL) and West Bengal State Electricity Transmission Company Limited (WBSETCL) in accordance with the transfer scheme notified by the Government of West Bengal dated January 25, 2007. WBSEDCL is a power distribution licensee for almost the entire state of West Bengal, except for certain areas, which are catered by private distribution licensees and accounts for about 80% of the power supply in the state and caters to almost 181 lakh customers.

### Key Strengths

- Monthly Variable Cost Adjustment (MVCA) framework for pass-on of increases in power purchase cost is operational
- Limited dependence on State Government subsidy; subsidy received in timely manner in FY 2018
- Receivables days have consistently remained below 90 days
- Collection efficiency has remained high at 100% in FY 2018
- Lower than benchmark cost of power procurement
- Cost coverage continues to remain healthy and stood at 1.0x in FY 2018
- Timely finalization of audited accounts

### Key Concerns

- AT&C loss continue to remain high at 26.7% in FY 2018
- Distribution loss levels continue to remain higher than as allowed by West Bengal Electricity Regulatory Commission (WBERC), leading to disallowance of power purchase costs, which adversely affects allowed returns
- Tariff Order not issued for FY 2019
- Non filing of tariff petition for FY 2019 and FY 2020
- True-up not being done for last five years

### Key Actionables

- Improvement in AT&C loss levels through reduction in distribution loss
- Timely filing of tariff petition



**B+**

## CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED

### Background

Chhattisgarh State Power Distribution Company Limited (CSPDCL) was formed in 2009, consequent to the unbundling of Chhattisgarh State Electricity Board (CSEB). CSPDCL supplies power to the entire state of Chhattisgarh. Its consumer base stood at 47.43 lakh as at the end of FY 2017. As per the provisional results provided for FY 2018, CSPDCL registered total revenue of ₹ 14642 crore and net loss of ₹ 30 crore.

### Key Strengths

- Improvement in cost coverage ratio to 1.0x in FY 2018 (PY: 0.89x)
- Improvement in AT&C losses from 28.98% in FY 2017 to 22.24% in FY 2018
- Improvement in billing efficiency to 77.76% in FY 2018 (PY: 73.20%)
- Tariff order issued for FY 2019

### Key Concerns

- Delay in payment of subsidy by the State Government
- High employee cost at 8.6% of revenue in FY 2018
- Elongated payables period at 90 days in FY 2018
- Delay in finalization of audited accounts
- RPO compliance not achieved

### Key Actionables

- AT&C losses to be reduced through better billing and collection efficiency
- Billing efficiency to be improved through various administrative and technical measures
- Timely preparation of audited accounts
- Rationalization of employee cost and reduction in creditors
- Timely filing of tariff petition
- Timely payment of subsidy by the State Government



**A+**

## UTTAR GUJARAT VIJ COMPANY LIMITED

### Background

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies, namely Gujarat Urja Vikas Nigam Limited (GUVNL) - the holding company, Gujarat State Electricity Corporation Limited (GSECL) - generation company, Gujarat Electricity Transmission Corporation Limited (GETCO) - transmission company and four power distribution companies namely, Dakshin Gujarat Vij Company Limited (DGVCL), Uttar Gujarat Vij Company Limited (UGVCL), Paschim Gujarat Vij Company Limited (PGVCL) and Madhya Gujarat Vij Company Limited (MGVCL).

### Key Strengths

- Consistent track record of profitable operations aided by cost reflective tariffs, healthy cash collections and adequate subsidy support from State Government
- Comfortable cost coverage ratio and capital structure
- Satisfactory AT&C Loss Levels which remained at 8.95% for FY 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational
- Regulatory clarity in place, with timely filing of tariff petitions by discoms and issuance of tariff orders by the GERC for the discoms
- Timely submission of audited accounts by September, 2018

### Key Concerns

- Absolute subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers, coupled with build up of state govt. receivables

### Key Actionables

- Continue to maintain low level of AT&C losses as well as high collection efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Gujarat through higher budget provision going forward



## DAKSHIN GUJARAT VIJ COMPANY LIMITED

### Background

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies, namely Gujarat Urja Vikas Nigam Limited (GUVNL) - the holding company, Gujarat State Electricity Corporation Limited (GSECL) - generation company, Gujarat Electricity Transmission Corporation Limited (GETCO) - transmission company and four power distribution companies namely, Dakshin Gujarat Vij Company Limited (DGVCL), Uttar Gujarat Vij Company Limited (UGVCL), Paschim Gujarat Vij Company Limited (PGVCL) and Madhya Gujarat Vij Company Limited (MGVCL).

### Key Strengths

- Consistent track record of profitable operations aided by cost reflective tariffs, healthy cash collections and adequate subsidy support from State Government
- Comfortable cost coverage ratio and capital structure
- Satisfactory AT&C Loss Levels which remained at 6.6% for FY 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place, with timely filing of tariff petitions by discoms and issuance of tariff orders by the GERC for the discoms
- Timely submission of audited accounts by September, 2018

### Key Concerns

- Absolute subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers, coupled with build up of state govt. receivables

### Key Actionables

- Continue to maintain low level of AT&C losses as well as high collection efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Gujarat through higher budget provision going forward



## MADHYA GUJARAT VIJ COMPANY LIMITED

### Background

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies, namely Gujarat Urja Vikas Nigam Limited (GUVNL) - the holding company, Gujarat State Electricity Corporation Limited (GSECL) - generation company, Gujarat Electricity Transmission Corporation Limited (GETCO) - transmission company and four power distribution companies namely, Dakshin Gujarat Vij Company Limited (DGVCL), Uttar Gujarat Vij Company Limited (UGVCL), Paschim Gujarat Vij Company Limited (PGVCL) and Madhya Gujarat Vij Company Limited (MGVCL).

### Key Strengths

- Consistent track record of profitable operations aided by cost reflective tariffs, healthy cash collections and adequate subsidy support from State Government
- Comfortable cost coverage ratio and capital structure
- Satisfactory AT&C Loss Levels which remained at 11.7% for FY 2018
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place, with timely filing of tariff petitions by discoms and issuance of tariff orders by the GERC for the discoms
- Timely submission of audited accounts by September, 2018

### Key Concerns

- Absolute subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers, coupled with build up of state govt. receivables

### Key Actionables

- Continue to maintain low level of AT&C losses as well as high collection efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Gujarat through higher budget provision going forward



**A+**

## **PASCHIM GUJARAT VIJ COMPANY LIMITED**

### **Background**

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies, namely Gujarat Urja Vikas Nigam Limited (GUVNL) - the holding company, Gujarat State Electricity Corporation Limited (GSECL) - generation company, Gujarat Electricity Transmission Corporation Limited (GETCO) - transmission company and four power distribution companies namely, Dakshin Gujarat Vij Company Limited (DGVCL), Uttar Gujarat Vij Company Limited (UGVCL), Paschim Gujarat Vij Company Limited (PGVCL) and Madhya Gujarat Vij Company Limited (MGVCL).

### **Key Strengths**

- Consistent track record of profitable operations aided by cost reflective tariffs, healthy cash collections and adequate subsidy support from State Government
- Comfortable cost coverage ratio and capital structure
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place, with timely filing of tariff petitions by discoms and issuance of tariff orders by the GERC for the discoms
- Timely submission of audited accounts by September, 2018

### **Key Concerns**

- High AT&C loss levels, which have decreased from 21.78% in FY 2017 to 20.06% in FY 2018
- Absolute subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers, coupled with build up of state govt. receivables

### **Key Actionables**

- Reduction in AT&C losses through improvement in billing efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Gujarat through higher budget provision going forward





## MADHYA PRADESH PASCHIM KSHETRA VIDYUT VITARAN COMPANY LIMITED

**A**

### Background

Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL) is an unbundled state power distribution company of Madhya Pradesh State Electricity Board (MPSEB). As per the Madhya Pradesh Vidyut Sudhar Adhiniyam 2000 of the Government of Madhya Pradesh (GoMP), the erstwhile MPSEB was unbundled into a generation company, a transmission company and three distribution companies (Discoms) with effect from November 1, 2002. MP Power Generating Company Limited (MPPGCL) was incorporated as the sole generation company, MP Power Transmission Company Limited (MPPTCL) was incorporated as the sole transmission company and three Discoms were incorporated in the form of MP Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL) and MP Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL).

### Key Strengths

- AT&C losses improved to 17.92% in FY 2018 from 18.35% in FY 2017
- Healthy collection efficiency of 98.38% in FY 2018
- Satisfactory cost coverage ratio of 0.96x in FY 2018 (PY: 0.95x)
- Fuel cost adjustment framework is operational
- Substantial State Government support
- Timely receipt of subsidy from the State Government

### Key Concerns

- Low consumer metering at 80% in FY 2018 (PY: 79%)
- Delay in filing of tariff petition for FY 2020 and issuance of true up order for FY 2017
- High receivables of 91 days in FY 2018
- Delay in finalization of audited accounts

### Key Actionables

- Timely filing of tariff petition and issuance of true up order
- Timely finalization of audited accounts
- Improvement in consumer metering
- Reduction in receivable days



## MADHYA PRADESH POORV KSHETRA VIDYUT VITARAN COMPANY LIMITED



### Background

Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co Ltd (MMPoKVV) is an unbundled state power distribution company of Madhya Pradesh State Electricity Board (MPSEB). As per the Madhya Pradesh Vidyut Sudhar Adhiniyam 2000 of the Government of Madhya Pradesh (GoMP), the erstwhile MPSEB was unbundled into a generation company, a transmission company and three distribution companies (Discoms) with effect from November 1, 2002. MP Power Generating Company Limited (MPPGCL) was incorporated as the sole generation company, MP Power Transmission Company Limited (MPPTCL) was incorporated as the sole transmission company and three Discoms were incorporated in the form of MP Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL) and MP Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL).

### Key Strengths

- Timely receipt of subsidy from State Government
- Fuel cost adjustment framework is operational
- Substantial support from State Government

### Key Concerns

- Deterioration in collection efficiency to 89.45% in FY 2018 (PY: 95.09%)
- High AT&C losses at 34.75% in FY 2018 (PY: 26.41%)
- Low billing efficiency at 73% in FY 2018 (PY: 77%)
- Low cost coverage of 0.74x in FY 2018 (PY: 0.76x)
- Delay in filing of tariff petition for FY 2020 and issuance of true up order for FY 2017
- Elongated collection period of 211 days in FY 2018
- Low consumer metering at 75% in FY 2018 (PY: 76%)
- High employee cost at 10.89% of revenue in FY 2018

### Key Actionables

- AT&C losses to be brought down through improvement in billing and collection efficiency
- Rationalization of employee cost and timely filing of tariff petition
- Improvement in collection period and consumer metering
- Cost coverage to be improved through suitable tariff revision and curtailment of losses



## MADHYA PRADESH MADHYA KSHETRA VIDYUT VITARAN COMPANY LIMITED



### Background

Madhya Pradesh Madhya Kshetra Vidyut Vitaran Co Ltd (MMPKVV) is an unbundled state power distribution company of Madhya Pradesh State Electricity Board (MPSEB). As per the Madhya Pradesh Vidyut Sudhar Adhiniyam 2000 of the Government of Madhya Pradesh (GoMP), the erstwhile MPSEB was unbundled into a generation company, a transmission company and three distribution companies (Discoms) with effect from November 1, 2002. MP Power Generating Company Limited (MPPGCL) was incorporated as the sole generation company, MP Power Transmission Company Limited (MPPTCL) was incorporated as the sole transmission company and three Discoms were incorporated in the form of MP Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL) and MP Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL).

### Key Strengths

- Timely receipt of subsidy from State Government
- Fuel cost adjustment framework is operational
- Substantial support from State Government

### Key Concerns

- Decline in collection efficiency to 84.36% in FY 2018 (PY:85.87%)
- High AT&C losses at 39.19% in FY 2018 (PY: 36.18%)
- Low billing efficiency at 72% in FY 2018 (PY: 74%)
- Low cost coverage of 0.67x in FY 2018 (PY: 0.70x)
- Elongated collection period of 267 days in FY 2018
- High employee cost at 11.56% of revenue in FY 2018
- Low consumer metering at 72% in FY 2018 (PY: 82%)
- Delay in filing of tariff petition for FY 2020 and issuance of true up order for FY 2017

### Key Actionables

- AT&C losses to be brought down through improvement in billing and collection efficiency
- Rationalization of employee cost and timely filing of tariff petition
- Improvement in collection period and consumer metering
- Cost coverage to be improved through suitable tariff revision and curtailment of losses



## MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

**A**

### Background

The Government of Maharashtra unbundled and restructured the erstwhile Maharashtra State Electricity Board (MSEB) with effect from 6th June, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Maharashtra State Electricity Board were transferred to four successor companies, namely MSEB Holding Company Limited (MHCL), Maharashtra State Power Generation Company Limited (MSPGCL), Maharashtra State Electricity Transmission Company Limited (MSETCL) and Maharashtra State Electricity Distribution Company Limited (MSEDCL).

### Key Strengths

- Significant improvement in the AT&C losses and collection efficiency; though at an absolute level, it continues to remain high
- Fuel Adjustment Cost (FAC) mechanism with a ceiling is operational
- MYT order for control period (FY 2017 to FY 2020 ) in place in November 2016
- Timely submission of audited accounts by September 2018

### Key Concerns

- High dependence on subsidy support from State Government, which has also seen an increasing trend due to rise in cost of power supply & continuing subsidized nature of tariff towards agriculture category
- Delay in receipt of subsidy support from state government
- High receivable and payable days
- Low cost competitiveness of power procurement

### Key Actionables

- Reduction in AT&C losses and improvement in collection efficiency
- To recover the outstanding dues and ensure healthy collection efficiency
- To ensure timely receipt of subsidy from State Government



## EASTERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED



### Background

The Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) was formed on March 31, 2000 and is engaged in the distribution and bulk supply of power in the Eastern region of Andhra Pradesh. APEPDCL covers the five circles viz. Srikakulam, Visakhapatnam, Vizianagaram, East and West Godavari districts & 20 Divisions of Coastal Andhra Pradesh.

### Key Strengths

- Low level of AT&C losses although increased to 9.4% in FY 2018 (PY: 7.7%)
- Healthy billing efficiency at 95.01% in FY 2018
- Satisfactory cost coverage at 0.94x in FY 2018 (PY: 0.91x)
- Moderate collection period of 70 days in FY 2018
- Power purchase cost at ₹ 4.36 per unit in FY 2018 is below benchmark power purchase cost
- Tariff order issued for FY 2019
- Timely filing of tariff petition for FY 2020

### Key Concerns

- Non receipt of entire subsidy for FY 2018
- High payables period of 119 days in FY 2018 (PY: 93 days)
- Non-approval of true-up claims and no automatic pass through of fuel cost

### Key Actionables

- Maintenance of relatively low level of AT&C losses and healthy billing efficiency
- Reduction in payable days
- Timely issuance of true-up order



## SOUTHERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED

**B+**

### Background

The Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL) was formed in April 1, 2000, to serve Krishna, Guntur, Prakasam, Nellore, Chittoor and Kadapa districts. The corporate office and headquarters of APSPDCL are at Tirupati City. After the bifurcation of the erstwhile Andhra Pradesh into the two new states of Andhra Pradesh and Telangana on June 2, 2014, two more districts Anantapur and Kurnool were added to the APSPDCL.

### Key Strengths

- Moderate AT&C loss at 17.86% in FY 2018
- Satisfactory billing efficiency at 91.76% in FY 2018 (PY: 91.53%)
- Tariff order issued for FY 2019
- Timely filing of tariff petition for FY 2020

### Key Concerns

- Low collection efficiency at 89.52% in FY 2018 and 90.65% in FY 2017
- Low cost coverage ratio at 0.88x in FY 2018 although improved from 0.83x in FY 2017
- Increased collection period at 119 days in FY 2018 (PY: 95 days)
- Weak regulatory framework with non-approval of true-up claims
- Pending partial subsidy receipt for FY 2017 and FY 2018

### Key Actionables

- Reduction in AT&C loss level through improvement in collection efficiency
- Rationalization of power purchase cost
- Timely issuance of true-up order
- Cost coverage to be improved through suitable tariff increase and curtailment of losses



**A+**

## **BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED**

### **Background**

Erstwhile Karnataka Electricity Board (KEB) was unbundled on functional lines into a transmission & distribution company called Karnataka Power Transmission Corporation Limited (KPTCL) and a generating company called Visvesvaraya Vidyuth Nigam Limited (VVNL) in April 2000. Thereafter, KPTCL was further unbundled into 5 independent companies effective from June 1, 2002, with one transmission company named KPTCL and four distribution companies namely Bangalore Electricity Supply Company Limited (BESCOM), Mangalore Electricity Supply Company Limited (MESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM). Later in November 2005, erstwhile MESCOM was split-up into two companies namely MESCOM and Chamundeshwari Electricity Supply Corporation Limited (CESCOM).

### **Key Strengths**

- AT&C loss level remains satisfactory at less than 15% in FY 2018
- Largest DISCOM in Karnataka; Consumer profile is favorable with good mix of HT and Commercial consumers
- Regulatory clarity in the State, with multi-year tariff regime in place and regular tariff filings and tariff orders issuance observed
- Significant improvement in cost coverage ratio in FY 2018 supported by realisation of past receivables under the scheme approved by State Government
- Timely filing of tariff petition for FY 2020

### **Key Concerns**

- Power purchase cost remains relatively high and has increased over the past three years
- Growing dependence on subsidy support; subsidy receipts from Government of Karnataka (GoK) remain less than 100% in FY 2018

### **Key Actionables**

- To continue to focus on loss reduction efforts in areas having higher loss levels
- To focus on reducing power purchase costs
- To improve subsidy collection levels and clear the pending subsidy claims from State Government



**A+**

## **MANGALORE ELECTRICITY SUPPLY COMPANY LIMITED**

### **Background**

Erstwhile Karnataka Electricity Board (KEB) was unbundled on functional lines into a transmission & distribution company called Karnataka Power Transmission Corporation Limited (KPTCL) and a generating company called Visvesvaraya Vidyuth Nigam Limited (VVNL) in April 2000. Thereafter, KPTCL was further unbundled into 5 independent companies effective from June 1, 2002, with one transmission company named KPTCL and four distribution companies namely Bangalore Electricity Supply Company Limited (BESCOM), Mangalore Electricity Supply Company Limited (MESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM). Later in November 2005, erstwhile MESCOM was split-up into two companies namely MESCOM and Chamundeshwari Electricity Supply Corporation Limited (CESCOM).

### **Key Strengths**

- AT&C loss level remains satisfactory at less than 15% in FY 2018
- Regulatory clarity in the State, with presence of multi-year tariff regime along with regular tariff filings and tariff orders issuance
- Significant improvement in cost coverage ratio in FY 2018 supported by realisation of past receivables under the scheme approved by the State Government
- Timely filing of tariff petition for FY 2020
- Timely availability of audited annual accounts by September 2018

### **Key Concerns**

- High dependence on state government for subsidy support; subsidy receipts from Government of Karnataka (GoK) remain less than 100% in FY 2018
- High level of O&M and employee expenses as a proportion of revenues
- High level of payable days
- Power purchase cost remains relatively high, although there was a reduction in FY 2018 over the previous year

### **Key Actionables**

- To continue to focus on loss reduction efforts in areas having higher loss levels
- To focus on reducing power purchase costs
- To improve subsidy collection levels and clear the pending subsidy claims from State Government
- To improve cost efficiency levels







## GULBARGA ELECTRICITY SUPPLY COMPANY LIMITED

### Background

Erstwhile Karnataka Electricity Board (KEB) was unbundled on functional lines into a transmission & distribution company called Karnataka Power Transmission Corporation Limited (KPTCL) and a generating company called Visvesvaraya Vidyuth Nigam Limited (VVNL) in April 2000. Thereafter, KPTCL was further unbundled into 5 independent companies effective from June 1, 2002, with one transmission company named KPTCL and four distribution companies namely Bangalore Electricity Supply Company Limited (BESCOM), Mangalore Electricity Supply Company Limited (MESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM). Later in November 2005, erstwhile MESCOM was split-up into two companies namely MESCOM and Chamundeshwari Electricity Supply Corporation Limited (CESCOM).

### Key Strengths

- Reduction in AT&C losses and improved cost coverage ratio in FY 2018 supported by realisation of past receivables under the scheme approved by the State Government
- 100% collection efficiency in FY 2018
- Regulatory clarity in the State, with multi-year tariff regime in place and regular tariff filings and tariff orders issuance observed

### Key Concerns

- Weak cost efficiency and high level of power procurement cost per unit
- Relatively low billing efficiency compared to other discoms in Karnataka
- High receivable and payable days
- Very high dependence on tariff subsidy support from state government due to high proportion of agriculture consumers

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from State Government
- To improve cost efficiency levels
- To focus on reducing power purchase costs





## CHAMUNDESHWARI ELECTRICITY SUPPLY CORPORATION LIMITED

### Background

Erstwhile Karnataka Electricity Board (KEB) was unbundled on functional lines into a transmission & distribution company called Karnataka Power Transmission Corporation Limited (KPTCL) and a generating company called Visvesvaraya Vidyuth Nigam Limited (VVNL) in April 2000. Thereafter, KPTCL was further unbundled into 5 independent companies effective from June 1, 2002, with one transmission company named KPTCL and four distribution companies namely Bangalore Electricity Supply Company Limited (BESCOM), Mangalore Electricity Supply Company Limited (MESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM). Later in November 2005, erstwhile MESCOM was split-up into two companies namely MESCOM and Chamundeshwari Electricity Supply Corporation Limited (CESCOM).

### Key Strengths

- AT&C loss level is satisfactory at less than 15% in FY2018
- Regulatory clarity in the State, with presence of multi-year tariff regime along with regular tariff filings and tariff orders issuance
- Significant improvement in cost coverage ratio in FY 2018 supported by realisation of past receivables under the scheme approved by the State Government
- Timely availability of audited accounts for FY 2018

### Key Concerns

- Growing dependence on subsidy support; subsidy receipts from Government of Karnataka (GoK) remain less than 100% in FY 2018
- Low cost efficiency as reflected from high level of O&M expenses and employee expenses as a proportion of revenues
- High level of receivable and payable days

### Key Actionables

- To continue to focus on loss reduction efforts in areas having higher loss levels and improving collection efficiency
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Karnataka going forward
- To improve on cost efficiency – O&M expenses and employee expenses





## HUBLI ELECTRICITY SUPPLY COMPANY LIMITED

### Background

Erstwhile Karnataka Electricity Board (KEB) was unbundled on functional lines into a transmission & distribution company called Karnataka Power Transmission Corporation Limited (KPTCL) and a generating company called Visvesvaraya Vidyuth Nigam Limited (VVNL) in April 2000. Thereafter, KPTCL was further unbundled into 5 independent companies effective from June 1, 2002, with one transmission company named KPTCL and four distribution companies namely Bangalore Electricity Supply Company Limited (BESCOM), Mangalore Electricity Supply Company Limited (MESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM). Later in November 2005, erstwhile MESCOM was split-up into two companies namely MESCOM and Chamundeshwari Electricity Supply Corporation Limited (CESCOM).

### Key Strengths

- Regulatory clarity in the State, with multi-year tariff regime in place and regular tariff filings and tariff orders issuance observed
- Improvement in cost coverage ratio to 0.82x in FY 2018 as against 0.77x in FY 2017
- Timely availability of audited accounts for FY 2018 in September 2018

### Key Concerns

- Weak financial profile marked by high accumulated losses, high receivable and payable days
- Increase in the AT&C losses in FY 2018 due to deterioration in collection efficiency
- High level of power procurement cost per unit
- Very high dependence on tariff subsidy support from state government on account of high proportion of agriculture consumers
- Delays in meeting debt servicing obligations

### Key Actionables

- To continue to focus on loss reduction efforts in areas having higher loss levels
- To improve cost coverage
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Karnataka going forward



**B+**

## **KERALA STATE ELECTRICITY BOARD LIMITED**

### **Background**

Erstwhile Kerala State Electricity Board (KSEB) was corporatized and was incorporated as Kerala State Electricity Board Limited (KSEBL) under the Companies Act, 1956 on January 14, 2011. It started operations as an independent company with effect from October 31, 2013. KSEBL is in the business of Generation, Transmission and Distribution of electricity to all classes of consumers in the state of Kerala. The installed power generation capacity of KSEBL was 2,920.5 MW as on March 31, 2018, of which hydel constituted the major portion. The total energy consumption within the state was 20,881 million units (kWh) during FY 2018. The grading exercise is based upon audited financials of KSEBL for FY 2018.

### **Key Strengths**

- Low level of AT&C losses at 12.78% in FY 2018 (PY: 13.17%)
- Satisfactory billing efficiency of about 90% in FY 2018
- Satisfactory collection efficiency of around 97% in FY 2018
- Timely payment of subsidy by the State Government
- MYT tariff petition filed

### **Key Concerns**

- Low cost coverage ratio of 0.91x in FY 2018 (PY: 0.85x) and losses reported in the past
- Tariff orders not issued for a long time
- High employee expenses which stood at 24.7% of total revenue and relatively high O&M cost which stood at 6.6% of total revenue in FY 2018
- No unbundling on functional lines

### **Key Actionables**

- Continue to maintain low level of AT&C losses
- Timely issuance of tariff orders
- Controlling various operating expenses to improve cost efficiency
- Cost coverage to be improved through suitable tariff revision and cost rationalization



## **TAMIL NADU GENERATION & DISTRIBUTION CORPORATION LIMITED**

### **Background**

Vide order G.O.(Ms).No.100 dated October 19, 2010 of the Tamil Nadu Electricity (Reorganization and Reforms) Transfer Scheme 2010 issued by the Government of Tamil Nadu, the erstwhile Tamil Nadu Electricity Board was reorganized into TNEB Limited, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and Tamil Nadu Transmission Corporation Limited (TANTRANSCO). As distribution licensee, TANGEDCO carries out the retail supply of power to the end users as well as maintains the wire business for supply of such power.

### **Key Strengths**

- Relatively low AT&C loss levels at 18.49% in FY 2018
- Receivable days have remained consistently low and stood at 39 days in FY 2018

### **Key Concerns**

- Slippages in regulatory timelines with regards to filing of tariff petitions, closure of annual accounts and continuing serious audit qualifications and default during FY 2018
- Dependence on tariff subsidy from GoTN has increased substantially
- High financial risk profile on a standalone basis arising from cash losses and low cost coverage standing at 0.87x in FY 2018
- Poor capital structure and debt protection measures; net worth remains significantly negative at (-) ₹ 44,357 crore, debt stands at ₹ 1,01,294 crore

### **Key Actionables**

- Reduction in AT&C losses with focus on billing efficiency
- Long term plan to achieve financial turnaround
- Timely filing of tariff petition and true-up petition. Timely filing of FPPCA
- To improve cost coverage by bringing down the cost of generation
- Commissioning of own generating plants without further delays critical for improvement in cost efficiency

## SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED

**B+**

### Background

Southern Power Distribution Company of Telangana Limited (TSSPDCL), erstwhile APCPDCL (Andhra Pradesh Central Power Distribution Company Limited) is operating in the state of Telangana covering five districts and catering to over 8 million consumers. Erstwhile APCPDCL was formed on March 31, 2000. Consequent on enactment of Andhra Pradesh (AP) Reorganization Bill, 2014, the name of the Company has been changed to Southern Power Distribution Company of Telangana Limited with effect from June 02, 2014. Presently TSSPDCL operates as a distribution licensee in the southern part of Telangana covering five districts, i.e. Hyderabad, Mahaboobnagar, Nalgonda, Medak and Rangareddy.

### Key Strengths

- Satisfactory billing efficiency of around 89%
- Satisfactory power purchase planning with over 90% of power being purchased through Long Term Power Purchase Agreements
- Tariff order issued for FY 2019

### Key Concerns

- High power purchase cost during FY 2018 despite improvement vis-à-vis FY 2017
- Non-filing of tariff petition for FY 2020 within specified timeline
- Continuous loss registered in last three years with low cost coverage ratio at 0.76x in FY 2018
- High collection and payable days at 107 days and 220 days respectively in FY 2018
- No automatic pass through of fuel cost

### Key Actionables

- Reduction in AT&C losses and improvement in collection efficiency
- Timely receipt of subsidy due from State Government
- Timely filing of tariff petition
- Reduction in payable days
- Cost coverage to be improved through suitable tariff revision and cost rationalization



## NORTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED

**B**

### Background

The Northern Power Distribution Company of Telangana Limited (TSNPDCL), erstwhile APNPDCL (Andhra Pradesh Northern Power Distribution Company Limited) was incorporated under the Companies Act, 1956 as a Public Limited Company on March 30, 2000 to carry out electricity distribution business as part of the unbundling of erstwhile Andhra Pradesh State Electricity Board. Consequent on enactment of Andhra Pradesh (AP) Reorganization Bill, 2014, the name of the Company has been changed to Northern Power Distribution Company of Telangana Limited with effect from June 02, 2014. The company provides electricity to Warangal, Karminagar, Khammam, Nizamabad and Adilabad districts.

### Key Strengths

- Satisfactory billing efficiency of around 89%
- Tariff order issued for FY 2019

### Key Concerns

- Deterioration in AT&C loss in FY 2018 to 24.74% as against 16.35% in FY 2017 on account of non-receipt of subsidy
- High power purchase cost at ₹ 5.35 per unit in FY 2018
- Delay in filing of tariff petition for FY 2020
- Continuous loss registered in last three years with low cost coverage ratio at 0.72x in FY 2018
- No automatic pass through of fuel cost
- High collection and payable days at 170 days and 225 days respectively in FY 2018

### Key Actionables

- Reduction in AT&C loss level and improvement in collection efficiency
- Timely receipt of subsidy due from State Government
- Timely filing of Tariff petition
- Reduction in receivable and payable days
- Cost coverage to be improved through suitable tariff revision and cost rationalization of costs







## Section IV

### Key Findings





## KEY FINDINGS

- Cost coverage ratio for 19 discoms remained low ( $<0.90$ ) due to higher expenses and non-cost reflective tariffs (PY: 25 out of 41 discoms rated).
- The median Cost Coverage has however improved marginally to 0.91 during the seventh rating exercise as compared to 0.88 in the sixth rating exercise. Overall, 24 power distribution entities (out of a total of 41) have shown improvement in their cost coverage ratios. Out of these, 10 discoms have shown improvement of more than 10% in their cost coverage ratio. Out of the 14 discoms reporting decline in cost coverage ratio, 2 have shown a decline of more than 10%. Manipur State Power Distribution Company Ltd (MSPDCL) did not provide the accounts and for median calculation, cost coverage for 40 discoms has been taken.
- Karnataka discoms (except HESCOM), Himachal Pradesh, Assam discom and two Gujarat discoms (DGVCL & MGVL) were the best performers on cost coverages ( $>1.0$ ). Three power distribution entities have shown more than 15% improvement in this parameter and these include Chamundeshwari Electric Supply Company Limited (CESCOM), Mangalore Electric Supply Company Limited (MESCOM) and Jharkhand Bijli Vitran Nigam Limited (JBVNL).
- 28 of the rated power distribution entities have shown an improvement in their Aggregate Technical & Commercial (AT&C) loss levels during FY 2018 (19 over the previous year). 9 utilities have reported AT&C loss levels within 15% during 2018 as compared to 8 utilities during 2017. The median loss level has declined to 20.06% in the current rating exercise from 21.80% in the sixth rating exercise from 24.2% in 2016 (fifth rating exercise), from 24.82% in the fourth rating exercise after coming down from 25.08% in the third rating exercise, 26.19% in the second rating exercise and 26.55% in the first rating exercise.
- Eighteen utilities have been able to achieve more than 10% reduction in this parameter and these include, Dakshin Gujarat Vij Company Limited (DGVCL), Himachal Pradesh State Electricity Board Limited (HPSEBL), Chamundeshwari Electric Supply Company Limited (CESCOM), Mangalore Electric Supply Company Limited (MESCOM), Bangalore Electric Supply Company Limited (BESCOM), Gulbarga Electric Supply Company Limited (GESCOM), Assam Power Distribution Company Limited (APDCL), Tripura State Electricity Corporation Limited (TSECL), Maharashtra State Electricity Distribution Company Limited (MSEDCL), Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Kanpur Electricity Supply Company Limited (KESCO), Jodhpur Vidyut Vitran Nigam Limited (JdVVNL), Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL), Jaipur Vidyut Vitran Nigam Limited (JVVNL), Paschimanchal Vidyut Vitran Nigam Limited (PVVNL), Manipur State Power Distribution Company Limited (MSPDCL) and South Bihar Power Distribution Company Limited (SBPDCL).
- Eight utilities including Eastern Power Distribution Company of AP Limited (APEPDCL), Southern Power Distribution Company of Telangana Limited (TSSPDCL), Punjab State Power Corporation Limited (PSPCL), Hubli Electricity Supply Company Limited (HESCOM), Northern



Power Distribution Company of Telangana Limited (TSNPDCL), MP Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL) and Meghalaya Power Distribution Corporation Limited (MePDCL) have shown deterioration of more than 10%.

- In terms of regulatory environment, Tariff Orders for FY 2019 for 4 utilities have not been issued including WBSSEDCL, TANGEDCO, KSEBL & TSECL. For the sixth rating exercise Tariff Orders for FY 2018 for 4 utilities were not issued including WBSSEDCL, TANGEDCO, JBVNL, TSECL. For the fifth rating exercise Tariff orders for 8 discoms (including states of Kerala, Rajasthan, Tamil Nadu, Assam, Jharkhand and Tripura) were not issued. For the fourth rating exercise, Tariff Orders were not issued for the states of Kerala, Rajasthan, Tamil Nadu and Tripura while for the states of Assam, Jharkhand, Maharashtra, Uttar Pradesh and West Bengal tariff orders were issued with significant delays. For the third rating exercise, Tariff Orders were not issued for the states of Maharashtra, Andhra Pradesh, Jharkhand & Telangana; while for the states of Tamil Nadu, West Bengal & Rajasthan tariff order were issued with significant delays. For the second rating exercise Tariff order for FY 2014 were issued for all states except Maharashtra. During the first rating exercise, Tariff Orders for all the states for the year FY 2013 had been issued.
- There has been an improvement in terms of the number of utilities which have timely filed tariff petition for FY 2020, with 25 utilities (out of 41) filing the tariff petition in a timely manner during the current rating exercise. The corresponding numbers for the sixth, fifth, fourth, third, second and first rating exercises were 13, 14, 12, 15, 21 and 7, respectively.
- In terms of availability of audited accounts for FY 2018, 36 out of a total of 41 utilities have submitted audited annual accounts for FY 2018 during the current rating exercise as against 30 utilities (submission of accounts for FY 2017) during the sixth annual rating exercise conducted last year.
- Regulatory clarity gradually appearing in the state power sector with SERCs in place across all 22 states covered by ICRA and CARE.
- Finally, most of the utilities have shown greater cooperation in terms of submission of information and facilitating meetings and discussions.



**Appendix**  
**Integrated Rating Methodology for State Power  
Distribution Utilities**





## **Appendix - Integrated Rating Methodology for State Power Distribution Utilities**

### **1. Background**

Distribution function is a crucial link in the electricity chain as it provides the last mile connectivity in the Electricity Sector. With most of the country's distribution business coming under the state distribution sector, achieving improvements in the financial and operational performance of the State Power Distribution Utilities is of paramount importance for the robust overall development of the Indian power sector.

### **2. Introduction**

Ministry of Power initiated action for development of an Integrated Rating Methodology covering the State Power Distribution Utilities keeping in view the poor financial health of the State Distribution Utilities due to multifarious factors.

The objective of the integrated rating is to rate all utilities in power distribution sector on the basis of their performance and their ability to sustain the performance level. The methodology adopted attempts to objectively adjudge the performance of state distribution utilities against various parameters broadly classified under i) Operational & Reform parameters ii) External Parameters and iii) Financial parameters. The evaluation of certain parameters would cover current levels of performance as well as relative improvement from year to year. The operational and reform parameters viz. AT&C Losses, Efficiency of Power Purchase cost, digital payment facility, etc. carry weightage of 52% and the financial parameters viz. cost coverage ratio, payables, receivables, timely submission of audited accounts, etc. carry weightage of 33%. External parameters relating to regulatory environment, State Govt. subsidy support, etc. have been assigned weightage of 15%.

The methodology provides for assigning negative marks for non-compliance on such parameters viz. unavailability of audited accounts, non-formation of State Transmission Utility, non-filing of tariff petition, etc. The negative marks for such parameters give necessary depth to rating methodology.

The rating of all state power distribution utilities will be carried out by the credit rating agencies appointed by Ministry of Power. However state power departments would not be covered under the proposed rating mechanism.



### 3. Integrated rating methodology

#### (i) Summary of Rating Parameters

S.No.	Parameters	Marks
<b>1</b>	<b>OPERATIONAL &amp; REFORM Parameters</b>	<b>52</b>
<b>I)</b>	<b>Operational related</b>	
i)	AT&C Losses	28,-4
ii)	Power purchase	5
iii)	Cost Efficiency	6
iv)	Quality of Service & Digital Payment Facility	6
<b>II)</b>	<b>Reform related</b>	
v)	Access to Supply	5
vi)	RPO Compliance	2
<b>2</b>	<b>EXTERNAL Parameters</b>	<b>15</b>
I)	Regulatory	11,-19
II)	Govt. Support	4
<b>3</b>	<b>FINANCIAL Parameters</b>	<b>33</b>
I)	Ratios	
a	Cost Coverage Ratio	15
II)	Sustainability	6
III)	Receivables	4
IV)	Payables	3
V)	Audited Accounts	5,-12
VI)	Audit Qualifications	0,-1
VII)	Default to Banks / Fls	0,-2
	<b>Total</b>	<b>100</b>



## (ii) Definitions

S. No.	Parameters	Definition
1	Coverage Ratio	$\frac{\text{(Revenue realized from sale of power + Other income + Subsidy received)}}{\text{(Total Expenditure booked)}}$ <p>Where;  Revenue realized from sale of power = Opening receivables (power sale) – Closing receivables (power sale) + revenue from sale of power booked during the year</p>
2.	AT&C Losses (%) for SEBs/PDs/ Discoms	as defined in MoP Letter No.CEA-GO-17(11)/1/2018/DP&R Div/408-530 dated 08.08.2018 on “Addendum to methodology for calculation AT&C Losses and ACS – ACR Gap” (annexed)
3.	Billing Efficiency	$\frac{\text{Net sale of energy}}{\text{Net input energy}}$
4.	Fixed Assets to Total Debt Ratio	$\frac{\text{Net Fixed Assets}}{\text{Total Debt}}$
5.	Receivables (no. of days)	$\frac{\text{Debtors for sale of power} \times 365}{\text{Revenue from sale of power}}$
6.	Payables (no. of days)	$\frac{\text{Creditors for purchase of power} \times 365}{\text{Cost of purchase of power}}$

*Clarification : Electricity Duty/Cess should be included in the revenue / receivables while calculating Cost Coverage Ratio*



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
वितरण आयोजन एवं विकास प्रभाग

Distribution Policy & Regulations Division

No. CEA-GO-17(11)/1/2018/DP&R Div/ 408-530

Dated 08.08.2018

सेवा में,

1. सभी राज्यों/केंद्र शासित प्रदेशों के प्रधान सचिव/ सचिव (ऊर्जा/पावर) Principal Secretaries/ Secretaries (Energy/ Power) of all States/UTs
2. सभी डिस्कॉम के सीएमडी / एमडी CMD/MDs of all Discoms
3. सचिव, फोरम ऑफ रेगुलेटर Secretary, Forum of Regulators

विषय: ए टी एंड सी हानि और एसीएस-एआरआर गैप की गणना के लिए पद्धति में  
अनुपूरक।

Subject: Addendum to methodology for calculation AT&C losses and ACS – ARR Gap.

Ref.: i) This office letter No. CEA/DPD/AT&C losses/2017/758-818 dated 02.06.2017  
ii) This office letter No. CEA/DPD/AT&C losses/2017/1169-1291 dated 02.08.2017

Sir/Madam,

CEA had circulated the Revised methodology for calculation of AT&C losses and for calculation of ACS – ARR Gap vide letters referred to above.

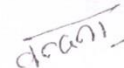
In order to address treatment of various sub-parameters used for calculation of AT&C losses and ACS – ARR Gap, a workshop was organized by PFC on 16<sup>th</sup> May, 2018, so as to ensure uniformity in calculation across the utilities. On the basis of feedback received from various Discoms during the workshop and further discussions held at Ministry of Power under the Chairmanship of Secretary(Power), addendums to the revised methodologies have been finalized.



The Revised methodology for calculation of AT&C losses and ACS – ARR Gap along with the proposed addendums are placed below at **Annexure-A** and **Annexure-B** respectively. This is for your kind information and necessary action.

संलग्नक: यथोपरि

भवदीया,



(वन्दना सिंघल)

मुख्य अभियंता

**प्रतिलिपि:**

1. Joint Secretary (Distribution), Ministry of Power, Shram Shakti Bhawan, Rafi marg, New Delhi-110001
2. CMD, Power Finance Corporation Ltd., 'Urjanidhi', 1, Barakhamba Lane, Connaught Place, New Delhi-110 001
3. CMD, Rural Electrification Corporation, Corporate Office, Core- 4, SCOPE Complex, 7, Lodhi Road, New Delhi - 110003



**Annexure - A****Revised methodology for AT&C losses circulated by CEA in June, 2017:**

<b>A</b>	Input Energy (MU)	Energy Generated – Auxiliary Consumption + Energy Purchased (Gross) – Energy Traded/ Inter State Sales
<b>B</b>	Transmission Losses (MU)	
<b>C</b>	Net Input Energy (MU)	A-B
<b>D</b>	Energy Sold (MU)	Energy Sold to all categories of consumers excluding units of Energy Traded/Inter-State Sales
<b>E</b>	Revenue from Sale of Energy (Rs crore)	Revenue from Sale of Energy to all categories of consumers (including Subsidy Booked) but excluding Revenue from Energy Traded /Inter-State Sales
<b>F</b>	Adjusted Revenue from Sale of Energy on Subsidy Received basis (Rs crore)	Revenue from Sale of Energy (same as E above) minus Subsidy Booked plus Subsidy Received against subsidy booked during the year
<b>G</b>	Opening Debtors for Sale of Energy (Rs crore)	Opening debtors for sale of Energy as shown in Receivable Schedule (Without deducting provisions for doubtful debtors). Unbilled Revenue shall not be considered as Debtors.
<b>H</b>	Closing Debtors for Sale of Energy (Rs crore)	i) Closing debtors for Sale of Energy as shown in Receivable Schedule (Without deducting provisions for doubtful debts). Unbilled Revenue shall not be considered as Debtors. ii) Any amount written off during the year directly from (i)
<b>I</b>	Adjusted Closing Debtors for sale of Energy (Rs crore)	H (i+ii)
<b>J</b>	Collection Efficiency (%)	$(F+G-I)/E*100$
<b>K</b>	Units Realized (MU) = [Energy Sold*Collection Efficiency]	$D*J/100$
<b>L</b>	Units Unrealized (MU) = [Net Input Energy - Units Realized]	C-K
<b>M</b>	AT&C Loss (%) = [{Units Unrealized/Net Input Energy}*100]	$L/C *100$

**Addendum to AT&C loss calculation methodology**

Parameter	Sub - parameter	Treatment of parameters for computation of AT&C loss as discussed and agreed in the workshop
Net Input Energy/ Energy Sold (MU)	Open Access / Wheeling	Open access/ wheeling units shall not be included in Net Input Energy and Energy Sold while calculating Billing Efficiency.
Revenue from Sale of Energy (Rs. Crores)	Unbilled Revenue	No adjustment shall be made in revenue from sale of energy on account of unbilled revenue.
Adjusted Revenue from Sale of Energy on Subsidy Received basis (Rs crore)	Subsidy Received against subsidy booked during the year	Total Tariff Subsidy received during the year including arrears (if any) shall also be included while calculating Adjusted Revenue from Sale of Energy on Subsidy Received basis
<b>Collection Efficiency (%)</b>		<b>Collection Efficiency of subsidy received and realization from sale of power together will be restricted at 100%</b>



**Annexure-B**

**Revised methodology for calculation of ACS-ARR gap circulated by CEA in August, 2017:**

Revenue GAP (Rs/kWh)	Average Cost of supply - Average Realisable Revenue (Subsidy received basis) (ACS – ARR)
Particulars	Formula
ACS --> Average Cost of Supply (in Rs/ kWh)	Total Expenditure (Amount)/ Total Input Energy (units)*
ARR --> Average Realisable Revenue (Subsidy received basis) (in Rs/ kWh)	Revenue from Sale of Power (on Subsidy Received basis)** + Other income/ Total Input Energy (units)
Note: *Total Input Energy here means Input Energy before making any adjustments like Transmission Loss, Inter-state sale or Energy Traded **Revenue from sale of power excluding subsidy booked plus subsidy received	

**Addendum to ACS-ARR Gap calculation methodology**

- Average Cost of Supply (ACS) and Average Realizable Revenue (ARR) terms may be differentiated from similar terms used by Regulatory Commissions such as Aggregate Cost of Supply and Annual Revenue Requirement.
- The ACS-ARR Gap is to be calculated on the basis of the annual accounts.
- Further, ACS –ARR Gap (in case of “Gap-Subsidy Received Basis”) calculation will be based on total revenue subsidy received during the year including arrears, if any, without any restrictions.

### (iii) Scoring Methodology

S.No.	Parameters	Score
<b>1.</b>	<b>Operational &amp; Reform Parameters</b>	<b>52</b>
<b>I.</b>	<b>Operational related</b>	<b>45</b>
<b>i)</b>	<b>AT&amp;C Losses</b>	<b>28</b>
<b>a</b>	<b>AT&amp;C Loss Levels</b>	<b>15</b>
	<b>Marks for absolute levels</b>	
	Less than or equal to 15%	15
	Between 15 to 30%	Proportionate
	More than 30%	0
	if more than 30%	-1
	(0.05 mark is reduced for every increase in ratio by 1% subject to a limit of -1)	
	<b>Marks for Improvement (applicable when AT&amp;C Losses is less than 35%)</b>	
<b>A)</b>	<b>Improvement in AT&amp;C Loss levels</b>	
	{AT&C in FY(T-2) – AT&C in FY(T-1)} / { AT&C in FY(T-2) - Benchmark AT&C} Where, AT&C = AT&C Losses in %, Benchmark AT&C = 25%, T = Current Year	
	If the above ratio $\geq 1$	6
	If the above ratio is between 0 to 1	Proportionate
	If the above ratio $\leq 0$	0
<b>B)</b>	<b>Improvement in AT&amp;C Loss Levels (consistently)</b>	
	Yearly variation (on absolute basis) in AT&C Losses for the past 3 years is calculated	
	If all the variations are positive i.e. consistently improving	2
	If any variation is negative	0
	<b>Marks for deterioration (applicable when AT&amp;C Losses is more than 30%)</b>	
	Increase by 20% or more	-3
	Increase by 10% up to 20%	-2
	Increase by 5% up to 10%	-1
<i>Note 1 : Higher of the two marks (either Absolute Marks or Marks for Improvement ) shall be assigned</i>		
<i>Note 2 : if Absolute Marks <math>&lt; 0</math> and Marks for Improvement = 0, then Absolute marks shall be assigned</i>		
<b>b</b>	<b>Billing Efficiency</b>	<b>8</b>
	<b>Marks for absolute level</b>	
	More than or equal to 90%	8
	Between 82 to 90%	Proportionate
	Equal to 82%	0
	<b>Marks for Improvement</b>	
	{BE in FY(T-2) – BE in FY(T-1)} / { BE in FY(T-2)-Benchmark BE} Where, BE = Billing Efficiency, Benchmark BE = 90%, T = Current Year	
	If the above ratio $\geq 1$	8
	If the above ratio is between 0 to 1	Proportionate
	If the above ratio $\leq 0$	0
<i>Note : Higher of the two marks (either Absolute Marks or Marks for Improvement ) shall be assigned</i>		



S.No.	Parameters	Score
<b>1.</b>	<b>Operational &amp; Reform Parameters</b>	<b>52</b>
<b>I.</b>	<b>Operational related</b>	
<b>c</b>	<b>Collection Efficiency</b>	<b>5</b>
	<i>Marks for absolute level</i>	
	More than or equal to 100%	5
	Between 90 to 100%	Proportionate
<b>ii)</b>	<b>Power Purchase</b>	<b>5</b>
<b>a</b>	<b>Power purchase planning &amp; procurement</b>	<b>2</b>
	More than 90% power purchase through long term PPA	2
	Between 85% to 90% power purchase through long term PPA	1
<b>b</b>	<b>Cost Competitiveness of Power Purchase</b>	<b>3</b>
	$\{ACP \text{ in FY(T-2)} - ACP \text{ in FY(T-1)}\} / \{ACP \text{ in FY(T-2)} - \text{Benchmark ACP}\}$ Where, ACP= Average Cost of Power Purchase, Benchmark ACP= Rs 4.4/unit, T = Current Year	
	If the above ratio $\geq 1$	3
	If the above ratio is between 0 to 1	Proportionate
	If the above ratio $\leq 0$	0
	<b>Notes:</b> *In all cases where ACP in FY T-1 $\leq$ Rs. 4.4/unit, full marks awarded regardless of any improvement or deterioration vis-à-vis the previous year **In all cases except * above, any deterioration in ACP in FY T-1 vis-à-vis the previous year, zero marks are awarded ***In all cases except * and ** above, marks awarded as per formula @ wherever power purchases are managed centrally, ACP of the centralized purchases would be evaluated and applicable marks be assigned uniformly to the respective state utilities	
<b>iii)</b>	<b>Cost Efficiency</b>	<b>6</b>
<b>a</b>	<b>O&amp;M &amp; Adm. costs (Excl. Employee cost) / Revenue (Sale of Power+Revenue subsidy)</b>	<b>3</b>
	Between 1% to 2%	3
	Between 2% to 3%	2
	Between 3% to 4%	1
	More than 4%	0
<b>b</b>	<b>Employee cost / Revenue (Sale of Power+Revenue subsidy)</b>	<b>3</b>
	<i>For Discoms</i>	
	Between 0% to 5%	3
	Between 5% to 7.5%	2
	Between 7.5% to 10%	1
	More than 10%	0
	<i>For Gedcos</i>	
	Between 0% to 7%	3
	Between 7% to 9%	2
	Between 9% to 12%	1
	More than 12%	0



S.No.	Parameters	Score
<b>1.</b>	<b>Operational &amp; Reform Parameters</b>	<b>52</b>
<b>I.</b>	<b>Operational related</b>	
<b>iv)</b>	<b>Quality of Service &amp; Digital Payment Facility</b>	<b>6</b>
<b>A</b>	<b>Quality of Service</b>	<b>3</b>
a	Anti-theft measures – Establishment & Operationalization of Special Courts	1
b	Release of new connection within SERC stipulated time limits (sourced from latest available R-APDRP report)	1
c	Consumer metering (if more than > 90%)	1
<b>B</b>	<b>Digital Payment Facility</b>	<b>3</b>
a	Implementation of any method of payment - BHIM (Bharat Interface for Money), - Physical POS, Mobile POS, Virtual POS, - National Unified USSD Platform (NUUP), - Unified Payment Interface (UPI), - Aadhar enabled payment system (AEPS), - E-Wallets - E-payments	2
b	Any incentive, rebate, advertisement campaign, etc. to encourage digital payments	1
<b>II.</b>	<b>Reform related</b>	<b>7</b>
<b>v)</b>	<b>Access to Supply</b>	<b>5</b>
<b>A</b>	<b>Achievement of target set under DDUGJY scheme</b>	<b>1</b>
	(Suitable benchmarks to be adopted based on REC reports for defined in year 'T' i.e. Rating exercise year )	
	Village electrification (against target)	1
	<i>Note 1: Wherever not applicable, these marks will be allocated to AT&amp;C Loss parameter</i>	
	<i>Note 2: From 8<sup>th</sup> Integrated Rating onwards, the parameter stands deleted</i>	
<b>B</b>	<b>Hours of supply per day in rural area</b>	<b>2</b>
	Equal to 24 hours	2
	Between 16 hours and 24 hours	Proportionate
	Less than 16 hours	0
<b>C</b>	<b>Household electrification</b>	<b>2</b>
	Equal to 100%	2
	Between 60% and 100%	Proportionate
	Less than 60%	0
<b>vi)</b>	<b>RPO Compliance</b>	<b>2</b>
	If target achieved for RPO (sourced from SERC/MNRE/Utilities)	2
	If target partially achieved	Proportionate

S.No.	Parameters	Score
<b>2.</b>	<b>External Parameters</b>	<b>15</b>
<b>I.</b>	<b>Regulatory</b>	<b>11</b>
<b>i)</b>	<b>Regulatory Environment</b>	<b>9</b>
<b>a</b>	<b>Tariff Filing / Tariff Order</b>	<b>9</b>
i	Tariff Petition Filed for next financial year (As on 30th November)	2
	MYT Petition filed for year FY (T+1)	1
ii	Non-filing of Tariff petition / Non-issuance of Tariff Order	
	No tariff petition / order for current year	-1
	No tariff petition / order for last two years	-3
	No tariff petition / order for last three years	-5
iii	Tariff Order Issued as per regulations - Tariff Order for Current Financial Year	3
iv	True-up order for year, prior to previous year issued on basis of audited accounts	2
	If there is no True-up order	-1
v	Return on Equity	
	Return on equity – CERC / F.O.R. norms followed 100%	1
	Return on equity – CERC / F.O.R. norms followed partially	0.5
	Return on equity – CERC / F.O.R. norms not followed	-1
vi	Untreated Revenue Gap in the ARR order	-5
<b>b</b>	<b>Regulatory Asset</b>	<b>0</b>
	If Regulatory Asset not created or if created carrying cost has been allowed by Regulator	0
	If carrying cost is not allowed by Regulator	-2
	If regulatory asset carried for more than 3 years	-3
<b>ii)</b>	<b>Auto. Pass through of FC (Implementation)</b>	<b>2</b>
	If implemented	2
	If not implemented	-1
<b>iii)</b>	<b>Transco (State Transmission Utility) is not formed</b>	<b>0</b>
	Transco (State Transmission Utility) is not formed	-3

S.No.	Parameters	Score
<b>2.</b>	<b>External Parameters</b>	<b>15</b>
<b>II.</b>	<b>Govt. Support</b>	<b>4</b>
<b>i)</b>	<b>Tariff Subsidy Support</b>	<b>4</b>
<b>A)</b>	<b>Advance payment of Subsidy</b>	
	If advance payment made as per direction of regulator	4
	If advance payment made in a periodic manner i.e. monthly / quarterly as per directions of regulator	4
	Where the utility's consumer profile does not include any subsidized category and hence subsidy not reflected in utility's books of accounts and if the utility has registered positive PAT during the relevant period	4
<b>B)</b>	<b>Where Subsidy not paid in advance</b>	
	Entire subsidy is released by Govt. within the end of the first quarter of the subsequent year.	3
	Only part of the subsidy is released by Govt. within the end of the first quarter of the subsequent year	Proportionate
<i>Note : In the absence of specific direction on subsidy payment by SERC, the subsidy booked in the accounts would form the basis for evaluation of this parameter</i>		

S.No.	Parameters	Score
<b>3.</b>	<b>Financial Parameters</b>	<b>33</b>
<b>I.</b>	<b>Ratios</b>	<b>15</b>
<b>a</b>	<b>Cost Coverage Ratio</b>	<b>15</b>
	<b>Marks for absolute levels</b>	
	Equal to or more than 1.01	15
	Less than 1.01 upto 0.86	Proportionate
	Equal to 0.86	0
	<b>Marks for Improvement</b>	
	{CCR in FY(T -1) – CCR in FY(T -2)}/ { Benchmark CCR – CCR in F(T-2)} Where, CCR = Cost Coverage Ratio, Benchmark CCR = 0.93, T = Current Year	
	If the above ratio $\geq 1$	7
	If the above ratio is between 0 to 1	Proportionate
	If the above ratio $\leq 0$	0
<i>Note : Higher of the two marks (either Absolute Marks or Marks for Improvement ) shall be assigned</i>		
<b>II.</b>	<b>Sustainability</b>	<b>6</b>
<b>a</b>	<b>CAGR of total revenue on realized basis vs. CAGR of total expenditure over 3 years</b>	<b>2</b>
	<b>% Difference (CAGR Growth of Revenue – CAGR Growth of Expenditure)</b>	
	+3 to -3 (%)	2 to 0
	(1% decrease in difference leads to reduction by $\frac{1}{3}$ mark)	
<b>b</b>	<b>Fixed Assets to Total Debt Ratio</b>	<b>4</b>
	If Ratio is equal to 80% and above	4
	If Ratio is less than 80% but more than 60%	Proportionate
	If Ratio is less than or equal to 60%	0
<b>III</b>	<b>Receivables</b>	<b>4</b>
	$\leq 60$ days	4
	Between 60 and 90 days	Proportionate
	$\geq 90$ days	2
	Between 90 and 120	Proportionate
	$\geq 120$	0
<b>IV</b>	<b>Payables</b>	<b>3</b>
	$\leq 60$ days	3
	Between 60 and 90 days	Proportionate
	$= 90$ days	0
	<i>Note : From 8th Integrated Rating onwards, Weightage to be increased from 3 to 4 marks consequent to deletion of parameter 'Village electrification under DDUGJY'</i>	

S.No.	Parameters	Score
<b>3.</b>	<b>Financial Parameters</b>	<b>33</b>
<b>V</b>	<b>Audited Accounts</b>	<b>5</b>
	<b>Availability of Audited Annual Accounts (Statutory Audit)</b>	
	FY (T-1) (2014-15) Audited accounts made available by;	
	30th September of FY(T) (2015-16)	5
	31st October of FY(T) (2015-16)	4
	30th November of FY(T) (2015-16)	3
	31st December of FY(T) (2015-16)	2
	31st January of FY(T) (2015-16)	1
	FY (T-1) (2014-15) Audited accounts made available after 31st January of FY(T) (2015-16) / not available beyond 31st January of FY(T) (2015-16)	-6
	FY (T-2) (2013-14) Audited accounts made available after 6 months of FY (T-1) (2014-15) i.e. beyond 30th September of FY(T) (2015-16)	-9
	FY (T-2) (2013-14) Audited accounts made available after 9 months of FY (T-1) (2014-15) i.e. beyond 31st December of FY(T) (2015-16) / not available beyond 31st December of FY(T) (2015-16)	-12
<p><i>Note1: Where latest audited accounts (i.e. FY (T-1)) have been made available, then marks assigned for the same shall be the final marks considered for the parameter (irrespective of any negative marks that may be applicable for late submission of previous years accounts)</i></p> <p><i>Note 2: Where latest audited accounts (i.e. FY (T-1)) have not been made available then the marks assignable w.r.t. earliest year for which audited accounts are not available shall be the final marks to be awarded (irrespective of negative marks that may apply for subsequent years also i.e. negative marks are not additive)</i></p> <p><i>Note 3: In case, the auditors qualify that the accounts do not give a true and fair view, '0' marks be awarded against the parameter</i></p> <p><i>Note 4: Overall '0' score be assigned to such utility wherever the auditors qualify in their main report that the accounts do not give a true and fair view (to be adopted from 8th Integrated Rating onwards)</i></p>		
<b>VI</b>	<b>Audit Qualifications</b>	<b>0</b>
	Non-provision / payment of Employee related liabilities / Statutory dues in the accounts/ Non-adoption of Ind-AS for annual accounts (subject to the condition that Ind-AS is mandatorily applicable to such utilities)	-1
<b>VII</b>	<b>Default to Banks / FIs</b>	<b>0</b>
	in FY (T-1) year	-1
	in both FY (T-1) & FY (T-2)	-2



4. All State Distribution Utilities would be required to furnish requisite inputs on year to year basis along with relevant documents like Audited Annual Accounts, ARR submitted to SERC, SERC orders, Business Plan, State Budgetary Plan, State Govt orders/notifications, Subsidy release particulars etc.

**Miscellaneous Note:**

Following financial ratios though not considered for rating purposes, would however be reflected in the rating report as part of the financial profile of the utility.

S.NO.	Financial Ratios
1	Interest Coverage Ratio
2	Debt Equity Ratio

Where;

- Interest Coverage Ratio =  $\frac{(PAT + Depreciation, Amortisation + Interest charged to operation)}{Interest\ charged\ to\ operation}$
- Debt Equity Ratio =  $\frac{Total\ Borrowings}{Total\ Network}$

Total Borrowings = Long term debt + Short term Debt

Total Network = Equity + Reserves + Accumulated Profits, Losses – Miscellaneous expenses not written off

□□□











**Ministry of Power**  
Government of India  
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