



सत्यमेव जयते

**Ministry of Power**  
Government of India

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

**JULY, 2018**



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**State Distribution Utilities  
Sixth Annual Integrated Rating**

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आर. के. सिंह  
R. K. SINGH



विद्युत एवं नवीन और नवीकरणीय ऊर्जा  
राज्य मंत्री (स्वतंत्र प्रभार)

भारत सरकार

**Minister of State (Independent Charge)  
for Power and New & Renewable Energy  
Government of India**



### **Message**

Power is one of the most important drivers of growth in an economy. The power sector has seen a transformational growth in the recent years on various fronts like generation capacity, strengthening of transmission and distribution networks, village electrification, energy efficiency and supply of electricity.

India is poised to emerge as an economic superpower. World Bank & IMF have in their recent reports on Global Economic outlook, also projected that India would be registering an economic growth of more than 7.5%, the highest on a global scale, over the next two years.

Ministry of Power (MoP) is on a mission mode to put in place a robust power sector to power the high economic growth agenda of the country. The electrification of Leisang village in Manipur on 28th April 2018 marked the crossing of a historic milestone in achieving 100% village electrification by the country. I am delighted to share that the objectives of "Pradhan Mantri Sahaj Bijli Har Ghar Yojana-(Saubhagya)" scheme to provide last mile connectivity to all households in rural and urban areas would be achieved before March 2019. The achievement of these two key milestones would totally transform the rural economic landscape, promote inclusive growth and turbocharge the Indian Economy towards a high growth trajectory.

A strong and efficient distribution sector is an essential prerequisite for the development of a robust, self-sustaining power sector. The State Power Sector entities play a major role in power distribution in India. MoP has drawn up several schemes/measures viz. Saubhagya, IPDS, DDUGJY, UDAY, etc. for bringing about improvements in the efficiency of technical, operational, financial and managerial areas of utility functioning. The Integrated Rating Methodology is one of the key initiatives of Government of India to objectively assess the performance of the distribution utilities across various parameters and enable utilities to draw up corrective action plans for improving their performance.

I am happy to note that the sixth integrated rating exercise, covering 41 distribution utilities, has been completed with the active participation of all the utilities. I am sure that the distribution utilities, respective state governments and other stakeholders would find the performance analysis contained in the rating report extremely useful in building and improving on their current strengths and formulating suitable corrective action plans to address the areas of weakness.

I congratulate all stakeholders, especially the state distribution utilities for their active support in the successful completion of the Sixth Annual Integrated Rating Exercise.

(R.K. Singh)



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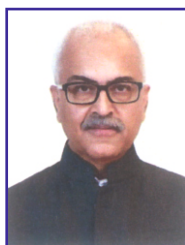


अजय भल्ला  
सचिव  
भारत सरकार  
**AJAY BHALLA**  
Secretary  
Government of India



सत्यमेव जयते  
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## Message

Power Sector plays a critical role in the economic development of the country. While significant strides have been made on the generation and transmission fronts, there is need to bring about further improvements in the distribution sector dominated by the state utilities.

Government of India has drawn up various schemes like IPDS, Saubhagya, DDUGJY, UDAY, etc. for strengthening the distribution sector and bringing about the necessary improvements. Further, 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 effecting possible improvements based on the suggestions received from utilities and other stakeholders and also keeping in view various developments in the sector.

I am sure the year-on-year and relative evaluation of utilities of the information contained in the rating report would provide deep 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 Sixth Annual Integrated Rating exercise covering 41 State Power Distribution Utilities for the rating period FY 2016-17 has been completed on a timely basis with the active cooperation and support of all the utilities.

I would like to commend the efforts made by the officials of MoP, PFC and State Distribution Utilities in making this rating exercise successful.

  
(A. K. Bhalla)



**Sixth 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

**JULY, 2018**



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# Section I

## Background, Utilities Covered and Scoring Methodology





## BACKGROUND

Ministry of Power 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 on an annual basis and 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, five integrated rating exercises covering FY 2012, FY 2013, FY 2014, FY 2015 and FY 2016 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 and the last i.e. fifth integrated ratings were released by Hon'ble Minister of State (IC) for Power, Coal and New & Renewable Energy on 3<sup>rd</sup> May 2017.

A review of Integrated Rating Methodology was taken up by MoP and based on the review, certain modifications providing for revised methodology for calculation of AT&C losses and parameters on digital payments, access to supply, etc. were approved by MOP in November 2017. The Sixth Integrated Ratings, covering the rating year FY 2017, 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 Telengana 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 Vitaran 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>	
<b>i)</b>	AT&C Losses	28,-4
<b>ii)</b>	Power purchase	5
<b>iii)</b>	Cost Efficiency	6
<b>iv)</b>	Quality of Service & Digital Payment Facility	6
<b>II)</b>	<b>Reform related</b>	
<b>v)</b>	Access to Supply	5
<b>vi)</b>	RPO Compliance	2
<b>2</b>	<b>EXTERNAL Parameters</b>	<b>15</b>
<b>I)</b>	Regulatory	11,-19
<b>II)</b>	Govt. Support	4
<b>3</b>	<b>FINANCIAL Parameters</b>	<b>33</b>
<b>I)</b>	Ratios	
<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. and 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 November 2017. The Integrated Rating Methodology incorporating these modifications is given in Appendix. The modifications provides for



revised methodology for calculation of AT&C losses and parameters on digital payment facility, access to supply, etc.

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, assessment of Financial Resources for Annual Plan submitted to the Planning Commission 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>5</b>	Very High Operational and Financial Performance Capability
Between 65 and 80	<b>A</b>	<b>2</b>	High Operational and Financial Performance Capability
Between 50 and 65	<b>B+</b>	<b>13</b>	Moderate Operational and Financial Performance Capability
Between 35 and 50	<b>B</b>	<b>11</b>	Below Average Operational and Financial Performance Capability
Between 20 and 35	<b>C+</b>	<b>2</b>	Low Operational and Financial Performance Capability
Between 0 and 20	<b>C</b>	<b>8</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 CRAs (**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	6th IR Grade (FY 2017)
1	Uttar Gujarat Vij Company Limited	Gujarat	ICRA	A+
2	Dakshin Gujarat Vij Company Limited	Gujarat	ICRA	A+
3	Madhya Gujarat Vij Company Limited	Gujarat	ICRA	A+
4	Uttarakhand Power Corporation Limited	Uttarakhand	CARE	A+
5	Paschim Gujarat Vij Company Limited	Gujarat	ICRA	A+
6	Eastern Power Distribution Company of AP Limited	Andhra Pradesh	CARE	A
7	Bangalore Electricity Supply Company Limited	Karnataka	ICRA	A
8	Himachal Pradesh State Electricity Board Limited	Himachal Pradesh	CARE	B+
9	Southern Power Distribution Company of AP Limited	Andhra Pradesh	CARE	B+
10	Uttar Haryana Bijli Vitran Nigam Limited	Haryana	CARE	B+
11	Punjab State Power Corporation Limited	Punjab	ICRA	B+
12	Madhya Pradesh Pash. Kshetra Vidyut Vitaran Co Ltd.	Madhya Pradesh	CARE	B+
13	Dakshin Haryana Bijli Vitran Nigam Limited	Haryana	CARE	B+
14	Mangalore Electricity Supply Company Limited	Karnataka	ICRA	B+
15	Southern Power Distribution Company of Telangana Limited	Telangana	CARE	B+
16	Northern Power Distribution Company of Telangana Limited	Telangana	CARE	B+
18	Gulbarga Electricity Supply Company Limited	Karnataka	ICRA	B+
17	North Bihar Power Distribution Co. Ltd.	Bihar	ICRA	B+
19	West Bengal State Electricity Distribution Company Ltd	West Bengal	ICRA	B+
20	Maharashtra State Electricity Distribution Company Ltd	Maharashtra	ICRA	B+
21	Chamundeswari Electricity Supply Corporation Ltd.	Karnataka	ICRA	B
22	Assam Power Distribution Company Limited	Assam	ICRA	B
23	Kerala State Electricity Board Limited	Kerala	CARE	B
24	Kanpur Electricity Supply Company Limited	Uttar Pradesh	ICRA	B
25	Ajmer Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
26	Jodhpur Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
27	Jaipur Vidyut Vitran Nigam Limited	Rajasthan	CARE	B
28	Tamil Nadu Generation and Distribution Corporation	TamilNadu	ICRA	B
29	Hubli Electricity Supply Company Limited	Karnataka	ICRA	B
30	South Bihar Power Distribution Co. Ltd.	Bihar	ICRA	B
31	Chhattisgarh State Power Distribution Company Ltd.	Chhattisgarh	CARE	B
32	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co Ltd	Madhya Pradesh	CARE	C+
33	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Co Ltd	Madhya Pradesh	CARE	C+
34	Jharkhand Bijli Vitran Nigam Limited	Jharkhand	CARE	C
35	Paschimanchal Vidyut Vitaran Nigam Limited	Uttar Pradesh	ICRA	C
36	Meghalaya Power Distribution Corporation Limited	Meghalaya	CARE	C
37	Madhyanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	ICRA	C
38	Purvanchal Vidyut Vitaran Nigam Limited	Uttar Pradesh	ICRA	C
39	Dakshinanchal Vidyut Vitran Nigam Limited	Uttar Pradesh	ICRA	C
40	Manipur State Power Distribution Company Limited	Manipur	CARE	C
41	Tripura State Electricity Corporation Limited	Tripura	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





**B+**

## 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 31,27,872 consumers including domestic, commercial, industrial, agricultural and others in FY 2017. As on March 31, 2017, the Government of Haryana (GoH) holds 82.8% of shares of DHBVNL while the balance 17.19% stake is held by Haryana Vidyut Prasaran Nigam Limited (HVPNL).

### Key Strengths

- Timely payment of subsidy by the State Government
- Conducive regulatory environment with timely issue of tariff order and true-up order
- Timely submission of audited accounts for FY 2017 and tariff petition filed for FY 2019
- Reduction in debt levels and decrease in interest cost in FY 2017 due to implementation of UDAY
- Low collection period of 44 days in FY 2017

### Key Concerns

- Continued high AT&C losses at 26.1% in FY 2017 though improved from 29.09% during FY 2016
- Low billing efficiency of 77.50% in FY 2017 and 75.53% in FY 2016
- High power purchase cost at ₹ 4.67 per unit in FY 2017 (PY: ₹ 4.57 per unit)
- Low cost coverage ratio albeit with improvement at 0.96x in FY 2017 (PY:0.92x)
- Low fixed asset creation with most of the debt utilized towards funding of working capital

### 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
- Cost coverage to be improved through curtailment of losses
- Reduction in power purchase cost
- Effective implementation of UDAY (Ujwal Discom Assurance Yojana)



**B+**

## 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 2.67 million consumers including domestic, commercial, industrial, agricultural and others in FY 2017. As on March 31, 2017, the Government of Haryana (GoH) holds 84% of the shares of UHBVNL while the remaining shares are held by Haryana Vidyut Prasaran Nigam Limited (HVPNL).

### Key Strengths

- Timely payment of subsidy by the State Government
- Conducive regulatory environment with timely issue of tariff order and true-up order
- Timely submission of audited accounts for FY 2017 and tariff petition for FY 2019
- Reduction in debt levels and decrease in interest cost in FY 2017 due to implementation of UDAY

### Key Concerns

- Continued high AT&C losses at 32% in FY 2017 though improved from to 34.41% during FY 2016
- Low billing efficiency of 70.1% in FY 2017 (PY: 68.5%)
- High power purchase cost at ₹ 4.76 per unit in FY 2017 (PY: ₹ 4.65 per unit)
- High employee cost stood at 8.52% of revenue in FY 2017
- Low fixed asset creation with most of the debt utilized towards working capital funding

### 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 and rationalization of the employee cost
- Effective implementation of UDAY



**B+**

## 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

- Conducive regulatory environment
- Comfortable receivables days and adequate fixed assets to debt ratio
- Low cost of power procurement due to significant sourcing of power through hydro power plants

### Key Concerns

- Deterioration in cost coverage to 0.96x in FY 2017 (PY: 1.03x)
- Deterioration in AT&C losses to 17.27% in FY 2017 (PY: 13.71%)
- Significant delay in making the audited financials available
- High operating cost primarily due to high employee expenses and relatively high O&M cost
- Prolonged payable cycle

### Key Actionables

- Improvement in collection efficiency and reduction in AT&C losses
- Improvement in billing efficiency
- Timely preparation of audited accounts
- Rationalization of employee expenses and O&M cost
- Better management of creditors to reduce the creditor days
- Effective implementation of UDAY



**B+**

## **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**

- Low AT&C Loss levels
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing the increase in such 'uncontrollable' cost items to be recovered from consumers on quarterly basis
- Low receivable and payable days
- Timely filing of tariff petition (including MYT petition), True-up order issued for FY 2016

### **Key Concerns**

- Weak cost coverage
- Absolute subsidy dependence for the state as a whole remains high, given the subsidized nature of tariff particularly towards agriculture consumers
- Delay in receipt of subsidy
- Low cost efficiency on account of high employee costs

### **Key Actionables**

- Continue to maintain low AT&C loss levels
- Improvement in cost coverage through rationalization of power & fuel and employee costs
- To ensure availability of audited accounts in a timely manner
- Effective implementation of UDAY



## 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 level from 27.61% in FY 2016 to 25.11% in FY 2017
- Take-over of 75% of the debt as of September, 2015 by Government of Rajasthan under UDAY
- Decline in interest cost and no defaults to FIs & Banks in FY 2017
- Timely filing of tariff petition

### Key Concerns

- Low billing efficiency of 77.90% in FY 2017 (PY: 73.25%)
- High power purchase cost at ₹ 4.59 per unit in FY 2017 (PY: ₹ 4.38 per unit)
- Low cost coverage ratio of 0.88x in FY 2017 and 0.73x in FY 2016
- Significant delay in issuance of tariff order for FY 2018 and true-up order for FY 2016

### 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 Rajasthan Electricity Regulatory Commission (RERC)
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY

## 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 level from 29.38% in FY 2016 to 26.10% in FY 2017
- Take-over of 75% of the debt as of September, 2015 by Government of Rajasthan under UDAY
- Decline in interest cost and no defaults to FIs & Banks in FY 2017
- Timely filing of tariff petition

### Key Concerns

- Low billing efficiency of 78.31% in FY 2017 (PY: 76.68%)
- Low collection efficiency at 94.37% in FY 2017 though improved from 92.10% in FY 2016
- High power purchase cost at ₹ 4.56 per unit in FY 2017 (PY: ₹ 4.38 per unit)
- Low cost coverage ratio of 0.87x in FY 2017
- Significant delay in issuance of tariff order for FY 2018 and true-up order for FY 2016

### 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
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY

## 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 the AT&C loss level from 35.65% in FY 2016 to 29.56% in FY 2017
- Take-over of 75% of the debt as of September, 2015 by Government of Rajasthan under UDAY
- Decline in interest cost and no defaults to FIs & Banks in FY 2017
- Timely filing of tariff petition

### Key Concerns

- Low billing efficiency of 74.52% in FY 2017 (PY: 68.10%)
- Low collection efficiency at 94.53% in FY 2017
- High power purchase cost at ₹ 4.52 per unit in FY 2017
- Low cost coverage ratio of 0.87x in FY 2017 (PY: 0.74x)
- Significant issuance of tariff order for FY 2018 and true-up order for FY 2016

### 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
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY

**A+**

## 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

- Low AT&C losses at 14.1% in FY 2017 (PY: 12.6%) backed by healthy collection efficiency at 103.1% in FY 2017 (PY: 106.6%)
- Low power purchase cost at ₹ 3.55 per unit in FY 2017 (PY: ₹ 3.36 per unit)
- High overall consumer metering at 100% in FY 2017
- Low receivables at 28 days in FY 2017 (PY: 50 days)
- No reliance on subsidy support from the State Government

### Key Concerns

- Relatively low billing efficiency of 83.3% in FY 2017 (PY: 82.0%)
- High O&M and employee costs and RPO targets not achieved
- High payable days at 174 days in FY 2017 (PY: 233 days)

### Key Actionables

- Improvement in Billing Efficiency
- Maintain low AT&C losses and sustenance of high collection efficiency
- Better management of creditors
- Achieving 100% RPO compliance
- Rationalize the employee costs and operations & maintenance expenses
- Effective implementation of UDAY



## KANPUR ELECTRICITY SUPPLY COMPANY 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

- MYT order for FY 2018 to FY 2020 in place
- Substantial improvement in collection efficiency resulting in improvement in AT&C loss and cost coverage parameters
- Lowering of interest costs has resulted in positive PAT during FY 2017
- Satisfactory level of cost efficiency

### Key Concerns

- Lack of information on availability of audited accounts for FY 2016 and FY 2017
- Negative net worth resulting in adverse capital structure
- No true-up done for FY 2016, tariff petition not filed for FY 2019
- Regulatory assets carried over for more than 3 years
- High cost of power procurement
- High receivable days

### Key Actionables

- To ensure availability of audited accounts in a timely manner
- Timely and adequate subsidy support from State Government
- 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)
- Effective implementation of UDAY



## 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

- MYT order for FY 2018 to FY 2020 in place
- Subsidy booked was received during the year
- Employee cost efficiency within benchmark levels

### Key Concerns

- Weak Cost coverage in FY 2017
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 26.9% in FY 2017
- Negative net worth resulting in adverse capital structure
- High cost of power procurement
- Significantly stretched receivable days
- Audited accounts for FY 2017 not yet made available and audited accounts for FY 2016 made available beyond September 2017
- Tariff Petition for FY 2019 has not been filed
- No true-up done for FY 2016 on account of delay in submission of audited accounts
- 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
- To ensure availability of audited accounts in a timely manner
- Timely and adequate subsidy support from State Government
- 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)
- Effective implementation of UDAY





## 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

- MYT order for FY 2018 to FY 2020 in place
- Subsidy booked was received during the year

### Key Concerns

- Weak Cost coverage
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 52% in FY 2017
- Negative net worth resulting in adverse capital structure
- High cost of power procurement
- Significantly stretched receivable and payable days
- Audited accounts for FY 2016 made available beyond September 2017 and audited accounts FY 2017 not yet made available
- Tariff Petition for FY 2019 has not been filed
- No true-up done for FY 2016 due to delay in submission of audited accounts
- 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
- To ensure availability of audited accounts in a timely manner
- Timely and adequate subsidy support from State Government
- 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)
- Effective implementation of UDAY





## 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

- MYT order for FY 2018 to FY 2020 in place
- Subsidy booked was received during the year

### Key Concerns

- Weak Cost coverage
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 51.1% in FY 2017
- Negative net worth resulting in adverse capital structure
- High cost of power procurement
- Significantly stretched receivable and payable days
- Audited accounts for FY 2017 not yet made available, Audited accounts for FY 2016 made available beyond September 2017
- Tariff Petition for FY 2019 has not been filed
- No true-up done for FY 2016 on account of delay in submission of audited accounts
- 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
- To ensure availability of audited accounts in a timely manner
- Timely and adequate subsidy support from State Government
- 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)
- Effective implementation of UDAY





## 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

- MYT order for FY 2018 to FY 2020 in place

### Key Concerns

- Weak Cost coverage
- Weak financial profile as reflected in sustained net losses
- High level of AT&C loss at 43.3% in FY2017
- Negative net worth resulting in adverse capital structure
- High cost of power procurement
- Weak O&M cost efficiency
- Significantly stretched receivable days
- Audited accounts for FY 2016 and FY 2017 not yet made available
- Tariff Petition for FY 2019 has not been filed
- No true-up done for FY 2016 on account of delay in submission of audited accounts
- 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
- To ensure availability of audited accounts in a timely manner
- Timely and adequate subsidy support from State Government
- 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)
- Effective implementation of UDAY





## 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

- Steadily improving trend on AT&C losses from 27.1% in FY 2014 to 21.2% in FY 2017
- Fuel and Power Purchase Price Adjustment (FPPPA) framework allows quarterly pass on of higher fuel and power purchase costs
- Regulatory clarity in place, with the release of tariff order for FY 2018, true-up order for FY 2016, MYT order for FY 2017 to FY 2019 and timely filing of tariff petition for FY 2019
- Favourable consumption mix, on account of a low share of agricultural connections compared to the industrial and commercial segments, which has higher unit realizations, leading to low cross-subsidization
- Moderate capital structure, supported by government grant received for capital projects

### Key Concerns

- Weak financial profile, as reflected through consistent net losses over the past few years
- Moderate cost coverage of ~0.93x in FY 2017, albeit an improvement over FY 2016
- Collection efficiency has remained less than 96.5% over the last few years
- Substantial buildup of receivables position leading to a tight liquidity profile and stretched payable days
- High share of employee, O&M & admin costs and transmission charges compared to total revenue leads to an increase in average cost of supply

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency and collection efficiency
- Improvement in cost coverage ratio
- Reduce cash-conversion cycle through timely realization of outstanding receivables
- Effective implementation of UDAY



**B+**

## **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 (NBPDC). BSPHCL owns the shares of the newly-incorporated four other companies.

### **Key Strengths**

- Regulatory clarity in place, with tariff order for FY 2018 in place and filing of tariff petition for FY 2019 in December 2017
- Timely receipt of subsidy from the State Government
- Timely availability of audited financial accounts for FY 2017
- Cost coverage is satisfactory at 0.92x in FY 2017
- Improvement in payables days to 39 in FY 2017 from 87 in FY 2016

### **Key Concerns**

- High level of AT&C losses at 32.2% in FY 2017
- High amount of receivables, although the same has shown a declining trend over the years.
- High and growing dependence on subsidy support
- Moderate level of cost efficiency
- Hours of supply in the rural areas by NBPDC are below 18 hours

### **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
- Effective implementation of UDAY





## **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 (NBPDC). BSPHCL owns the shares of the newly-incorporated four other companies.

### **Key Strengths**

- Regulatory clarity in place, with tariff order for FY 2018 in place and filing of tariff petition for FY 2019 in December 2017
- Timely receipt of subsidy from the State Government
- Timely availability of audited accounts for FY 2017
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework operational, allowing increase in such 'uncontrollable' cost to be recovered from consumers

### **Key Concerns**

- Continued high level of AT&C losses at 41.7% in FY 2017 though improved from 45.9% in FY 2016. Decline in collection efficiency to 90.4% in FY 2017 from 97.3% in FY 2016
- Cost coverage stands at 0.88x in FY 2017 after declining from 0.925x in FY 2016, despite improved profitability during FY 2017
- High amount of receivables, with the same having shown a significant deterioration over the last year
- Continued high amount of payables
- Continued high dependence on subsidy support
- Moderate level of cost efficiency

### **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 and payable days
- Effective implementation of UDAY





## 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

- Audited accounts of FY 2017 submitted albeit with a delay

### Key Concerns

- High AT&C losses at 34.73% in FY 2017 (PY: 32.48%)
- Low billing efficiency of 75.2% in FY 2017
- High power purchase cost at ₹ 4.66 per unit in FY 2017 (PY: ₹ 4.50 per unit)
- Low cost coverage ratio of 0.82x in FY 2017; however, government support is extended in the form of revenue gap funding

### 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
- Timely submission of audited accounts and filing of tariff petition
- Rationalization of power purchase cost
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY





## 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, Ukhrul, Kamjong, Jiribam, Noney, Pherzawl, Churachandpur, Chandel, and Tengnoupal. As on March 31, 2015, MSPDCL serves about 2.59 lakh consumers of various categories.

### Key Strengths

- Tariff order issued for FY 2018

### Key Concerns

- No inputs provided for current rating exercise
- Audited Financials for FY 2017 and FY 2016 are not available
- Delay in filing for true-up petition & tariff petition
- Lower household electrification

### Key Actionable Points

- Greater co-operation in terms of providing rating inputs and facilitation of meetings
- Timely preparation of annual accounts
- Timely filing of tariff petition
- Improvement in household electrification
- Effective implementation of UDAY





## 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

- Tariff order issued for FY 2018

### Key Concerns

- High AT&C losses at 34.6% in FY 2017 (PY: 40.6%)
- Absence of audited accounts for FY 2017
- Low billing efficiency of 67.4% in FY 2017 (PY: 67.4%)
- High power purchase cost at ₹ 5.91 per unit in FY 2017 (PY: ₹ 4.99 per unit)
- Low cost coverage ratio of 0.65x in FY 2017 and 0.72x in FY 2016

### 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
- Effective implementation of UDAY



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

- Absence of annual accounts and other inputs required for rating exercise
- Unfavorable regulatory environment, such as tariff petition not filed
- Unbundling process not yet completed

### Key Actionables

- Greater co-operation in terms of providing rating inputs and facilitation meetings
- Timely audit of accounts and timely filing of tariff petition
- Unbundling of TSECL
- Effective implementation of UDAY



## 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 174 lakh low and medium voltages and 4450 high voltage customers.

### Key Strengths

- Collection efficiency has remained high at 98.0% in FY 2017 and 98.5% in FY 2016
- Improvement in cost coverage from 0.86x in FY 2016 to 0.99x in FY 2017
- Monthly Variable Cost Adjustment (MVCA) framework is operational, allowing for a mechanism for pass-on of increases in power purchase cost
- Limited dependence on State Government subsidy; timely receipt of subsidy for FY 2017
- Timely finalization of audited accounts
- Receivable days consistently remained below 90 days

### Key Concerns

- Consistently high AT&C losses, which remained at around 29.0% in FY 2017 and FY 2016, on account of low billing efficiency
- 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
- Significant increase in short term borrowing levels from FY 2011 onwards, exposes the company to refinancing risks, and also leads to a deterioration in capital structure; additionally with the allowed carrying cost on regulatory assets being lower than WBSEDCL's interest cost on working capital/short term debt at present, leading to an under-recovery of working capital interest cost
- Substantial build-up of regulatory assets pertaining to increase in power purchase costs

### Key Actionables

- Improvement in AT&C loss levels through improvement in billing efficiency
- Timely release of tariff and true up orders
- Reduction in external debt levels



**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 2017, CSPDCL registered total revenue of ₹ 12905 crore and net loss of ₹ 979 crore.

### Key Strengths

- Improvement in AT&C losses from 31.75% in FY 2016 to 26.64% in FY 2017
- Tariff order issued for FY 2018
- Improvement in billing efficiency to 81.44% (PY: 78.49%) though it remains low

### Key Concerns

- Low collection efficiency at 90.08% in FY 2017 (PY: 86.97%)
- High employee cost at 16% of revenue in FY 2017
- Decline in cost coverage at 0.89x in FY 2017 (PY: 0.94x) due to significant provision of pension and gratuity liabilities
- Elongated payables period at 102 days in FY 2017
- Delay in finalization of audited accounts

### 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 timely filing of tariff petition
- Reduction in creditors
- Effective implementation of UDAY



**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
- Healthy cash collections from the consumers, also aided by satisfactory AT&C Loss Levels which remained at 9% for FY 2017
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place
- Timely submission of audited accounts by September, 2017

### Key Concerns

- Subsidy dues receivable from GoG built-up from ₹ 727.7 crore as on March 31, 2010 to ₹ 4664 crore as on March 31, 2017, due to lower budgetary allocation than actual subsidy claims. On annual basis, actual subsidy received has always been 100% of the budgetary allocation and in FY 2016-17, GUVNL has stopped accounting for the unpaid subsidy. However, the budgetary allocation has been lower than the actual claim leading to increase in outstanding subsidies

### 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
- Leverage benefits available under UDAY



**A+**

## 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
- Healthy cash collections from the consumers, also aided by satisfactory AT&C Loss Levels which remained at 9.7% for FY 2017
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place
- Timely submission of audited accounts by September, 2017

### Key Concerns

- Subsidy dues receivable from GoG built-up from ₹ 727.7 crore as on March 31, 2010 to ₹ 4664 crore as on March 31, 2017, due to lower budgetary allocation than actual subsidy claims. On annual basis, actual subsidy received has always been 100% of the budgetary allocation and in FY 2016-17, GUVNL has stopped accounting for the unpaid subsidy. However, the budgetary allocation has been lower than the actual claim leading to increase in outstanding subsidies

### 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
- Leverage benefits available under UDAY



**A+**

## 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
- Healthy cash collections from the consumers, also aided by satisfactory AT&C Loss Levels which remained at 10.85% for FY 2017
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place
- Timely submission of audited accounts by September, 2017

### Key Concerns

- Subsidy dues receivable from GoG built-up from ₹ 727.7 crore as on March 31, 2010 to ₹ 4664 crore as on March 31, 2017, due to lower budgetary allocation than actual subsidy claims. On annual basis, actual subsidy received has always been 100% of the budgetary allocation and in FY 2016-17, GUVNL has stopped accounting for the unpaid subsidy. However, the budgetary allocation has been lower than the actual claim leading to increase in outstanding subsidies

### 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
- Leverage benefits available under UDAY



**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
- Healthy cash collections from the consumers
- Fuel & Power Purchase Cost Adjustment (FPPCA) framework is operational, allowing increase in cost to be recovered from consumers quarterly
- Regulatory clarity in place
- Timely submission of audited accounts by September, 2017

### Key Concerns

- High AT&C loss levels, which have decreased from 24.5% in FY 2016 to 21.8% in FY 2017
- Subsidy dues receivable from GoG built-up from ₹ 727.7 Cr. as on March 31, 2010 to ₹ 4664 crore as on March 31, 2017, due to lower budgetary allocation than actual subsidy claims. On annual basis, actual subsidy received has always been 100% of the budgetary allocation and in FY 2016-17, GUVNL has stopped accounting for the unpaid subsidy. However, the budgetary allocation has been lower than the actual claim leading to increase in outstanding subsidies

### Key Actionables

- Reduction in AT&C losses through improvement in billing efficiency
- To improve cost coverage by bringing down the actual costs in line with the levels allowed by Gujarat Electricity Regulatory Commission (GERC)
- To improve subsidy collection levels and clear the pending subsidy claims from Government of Gujarat through higher budget provision going forward
- Leverage benefits available under UDAY



## MADHYA PRADESH PASCHIM KSHETRA VIDYUT VITARAN COMPANY LIMITED

**B+**

### Background

Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVCL) is an unbundled state power distribution company of Madhya Pradesh State Electricity Board (MPSEB). As per the Madhya Pradesh Vidyut Sudhar Adhinyam 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 (MPPoKVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVCL) and MP Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVCL).

### Key Strengths

- AT&C losses improved to 21.5% in FY 2017 from 27.45% in FY 2016
- Improvement in cost coverage ratio at 0.95x in FY 2017 (PY: 0.90x)
- Increase in collection efficiency at 95.59% in FY 2017 (PY: 94.04%) though it remains low
- Majority debt in the form of perpetual loan from State Government which is proposed to be partially taken over by State Government under UDAY scheme
- Fuel cost adjustment framework is operational

### Key Concerns

- Low billing efficiency albeit improved to 82% in FY 2017 (PY: 77%)
- Low consumer metering at 79% in FY 2017 (PY: 78%)
- Delay in filing of tariff petition for FY 2019
- Delay in issuance of true up order for FY 2016

### Key Actionables

- AT&C losses to be brought down through improving the billing efficiency
- Timely filing of tariff petition and issuance of true-up order
- Improvement in consumer metering
- Effective implementation of UDAY



## 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 Adhinyam 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

- Majority debt in the form of perpetual loan from State Government which is proposed to be partially taken over by State Government under UDAY scheme
- Timely receipt of subsidy from State Government

### Key Concerns

- Deterioration in collection efficiency at 93.29% in FY 2017 (PY: 98.02%)
- High AT&C losses at 27.81% in FY 2017 (PY: 24.19%) and Low billing efficiency at 77% in FY 2017 (PY: 77%)
- Low cost coverage of 0.76x in FY 2017 (PY: 0.78x) and high employee cost at 10.59% of revenue in FY 2017
- Elongated collection period and low level of metering at 76% in FY 2017 (PY: 75%)
- Delay in filing of tariff petition for FY 2019 and issuance of true up order for FY 2016

### 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 and issuance of true-up order
- Improvement in collection period and consumer metering
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY



## MADHYA PRADESH MADHYA KSHETRA VIDYUT VITARAN COMPANY LIMITED

C+

### 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 Adhinyam 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 (MPPoKVCL), MP Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL) and MP Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVCL).

### Key Strengths

- Majority debt in the form of perpetual loan from State Government which is proposed to be partially taken over by State Government under UDAY scheme
- Timely receipt of subsidy from the State Government

### Key Concerns

- High AT&C losses at 35.84% in FY 2017 (PY: 35.17%)
- Low collection efficiency at 86.25% in FY 2017 (PY: 86.84%)
- Low consumer metering at 82% in FY 2017 and billing efficiency at 74% in FY 2017 (PY: 75%)
- Low cost coverage of 0.68x in FY 2017 (PY: 0.69x)
- Elongated collection period
- High employee cost at 9.67% of revenue in FY 2017
- Delay in filing of tariff petition for FY 2019 and issuance of true up order for FY 2016

### 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 increase and curtailment of losses
- Effective implementation of UDAY



## MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

**B+**

### 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

- Demonstrated ability to improve the T&D loss level by successful implementation of distribution franchisee model
- Fuel Adjustment Cost (FAC) mechanism with a ceiling is in place
- MYT order for control period (FY 2017 to FY 2020) in place in November 2016

### Key Concerns

- Deterioration of AT&C and cost coverage ratios in FY 2017
- Significant 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
- Sharp increase in debtor levels in FY 2017 due to high agricultural receivables

### Key Actionables

- Reduction in AT&C losses and improvement in collection efficiency
- To recover the outstanding dues and ensure healthy collection efficiency
- Cost coverage to be improved through suitable tariff increase and rationalization of costs
- To ensure timely payments to power generating companies
- To ensure timely receipt of subsidy from State Government
- Effective implementation of UDAY



## EASTERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED

**A**

### 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 moderated to 7.8% in FY 2017 (PY: 6.5%)
- Healthy billing efficiency at 94.82% in FY 2017
- Timely receipt of tariff subsidy from the Government of Andhra Pradesh (GoAP)
- Tariff order issued for FY 2018
- Satisfactory collection period at 65 days in FY 2017 (PY: 59 days)

### Key Concerns

- Decline in cost coverage ratio to 0.91x in FY 2017 (PY: 0.94x)
- High albeit improved payables period of 93 days in FY 2017 (PY: 139 days)
- Non-approval of true-up claims

### Key Actionables

- Maintenance of relatively low level of AT&C losses and high billing efficiency
- Rationalization of power purchase cost and reduction in payable days
- Timely issuance of true-up order
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY



## 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

- Relatively low AT&C loss at 15.76% in FY 2017 although deteriorated from 12.98% in FY 2016
- Improvement in billing efficiency to 93.58% in FY 2017 from 90.81% in FY 2016
- Satisfactory overall consumer metering at around 91% in FY 2017
- Tariff order issued for FY 2018
- Timely filing of tariff petition for FY 2019

### Key Concerns

- Deterioration in collection efficiency to 90.02% in FY 2017 from 95.83% in FY 2016
- Low cost coverage ratio (0.82x in FY 2017)
- High power purchase cost at ₹ 4.59 per unit in FY 2017
- High payables days at 164 days in FY 2017 as compared to 123 days in FY 2016
- Non-approval of true-up claims and no automatic pass through of fuel cost

### Key Actionables

- Maintain billing efficiency and improve collection efficiency
- Rationalization of power purchase cost
- Cost coverage to be improved through suitable tariff increase and curtailment of losses
- Effective implementation of UDAY



**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 has remained satisfactory at less than 15% in FY 2017
- Largest DISCOM in Karnataka accounting for 45-50% of total energy sales; Consumer profile is also 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
- Close to 100% RPO compliance in FY 2017

### **Key Concerns**

- Power purchase cost remains relatively high and has increased over the past three years
- Cost coverage ratio continues to remain less than one but has shown improvement over the previous year
- High level of pending receivables and inter-discom power purchase receivables
- Growing dependence on subsidy support; subsidy receipts from Government of Karnataka (GoK) remain less than 100% in FY 2017

### **Key Actionables**

- To continue to focus on loss reduction efforts in areas having higher loss levels
- To improve cost coverage by bringing down the actual costs in line with the levels allowed by Karnataka Electricity Regulatory Commission (KERC), especially power purchase costs
- To recover the outstanding dues including pending subsidy and ensure healthy collection efficiency
- Effective implementation of UDAY



**B+**

## **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**

- Regulatory clarity in the State, with presence of multi-year tariff regime along with regular tariff filings and tariff orders issuance
- 100% RPO compliance achieved in FY 2017
- Timely availability of audited financial accounts for FY 2017

### **Key Concerns**

- Deterioration in AT&C loss level in FY 2017 due to decline in collection efficiency
- Cost coverage ratio in FY 2017 affected by significant increase in power purchase costs and non-receipt of subsidy booked
- High level of O&M 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 improve collection efficiency
- To improve cost coverage by bringing down the actual costs in line with the levels allowed by KERC, especially power purchase costs
- To recover the outstanding dues including pending subsidy and ensure healthy collection efficiency
- Effective implementation of UDAY



**B+**

## **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**

- 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 in FY 2017 over the previous year
- 100% RPO compliance in FY 2017

### **Key Concerns**

- Weak financial profile marked by net losses, high receivable and payable days
- While AT&C losses have shown improvement in FY 2017, the losses continue to remain relatively high among the five discoms in Karnataka
- High dependence on subsidy support from state government due to high proportion of agriculture consumers
- Delay in submission of audited accounts for FY 2017
- Weak cost efficiency and high level of power procurement cost per unit

### **Key Actionables**

- Reduction in AT&C losses through improvement in billing efficiency, collection efficiency and higher metering
- To improve cost coverage by bringing down the actual costs in line with the levels allowed by KERC, especially power purchase costs
- To recover the outstanding dues and ensure healthy collection efficiency
- To ensure timely payments to power generating companies
- To ensure availability of audited accounts in a timely manner
- Effective implementation of UDAY



**B**

## 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

- Regulatory clarity in the State, with presence of multi-year tariff regime along with regular tariff filings and tariff orders issuance
- Timely availability of audited financial accounts for FY 2017

### Key Concerns

- Deterioration in AT&C loss level in FY 2017 due to decline in collection efficiency
- Deterioration in cost coverage ratio for FY 2017 due to significant increase in power purchase costs
- Low cost efficiency as reflected from high level of O&M and employee expenses as a proportion of revenues
- Financial profile constrained by weak capital structure, high 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 cost coverage by bringing down the actual costs in line with the levels allowed by KERC, especially power purchase costs
- To recover the outstanding dues including pending subsidy and ensure healthy collection efficiency
- To ensure timely payments to power generating companies
- Effective implementation of UDAY



## 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
- Close to 100% RPO Compliance achieved in FY 2017

### Key Concerns

- Weak financial profile marked by high accumulated losses and high receivable and payable days
- While AT&C losses have shown improvement in FY 2017, the losses continue to remain relatively high among the five discoms in Karnataka
- Decline in cost coverage ratio during FY 2017 with significant increase in power purchase costs
- High dependence on subsidy support from state government due to 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 by bringing down the actual costs in line with the levels allowed by KERC, especially power purchase costs
- To recover the outstanding dues and ensure healthy collection efficiency
- To ensure timely payments to power generating companies
- To ensure timely payments to lenders
- Effective implementation of UDAY

**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 2704.07 MW as on March 31, 2017, of which hydel constituted the major portion with around 78% of generation capacity. The total energy consumption within the state was 20,038 million units (kWh) during FY 2017. The grading exercise is based upon audited financials of KSEBL for FY 2017.

### **Key Strengths**

- Low level of AT&C losses at 13.05% in FY 2017 (PY: 12.26%)
- Timely payment of subsidy by the State Government
- 100% consumer metering
- Collection efficiency of around 98% in FY 2017

### **Key Concerns**

- Unavailability of audited accounts
- No unbundling on functional lines
- High employee expenses which stood at 32.2% of total revenue and relatively high O&M cost which stood at 6.0% of total revenue in FY 2017
- Low cost coverage ratio of 0.85 in FY 2017
- Non filing of Tariff petition and True up petition

### **Key Actionables**

- Continue to maintain low level of AT&C losses
- Timely completion of audited accounts
- Timely filing of tariff petition and true up petitions and issuance of tariff orders
- Rationalize operating expenses to improve cost efficiency
- Cost coverage to be improved through suitable tariff revision and cost rationalization
- Effective implementation of UDAY



## 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

- Continuing support from GoTN in the form of funds infusion of in the form of equity and advance release of subsidy
- Signing of the UDAY scheme; GoTN takeover of liabilities resulting in large interest savings
- Improvement in cost coverage following the reduction in the average cost of power following commissioning of various own and Central generating stations

### 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 2017
- Notwithstanding the improvement in cost coverage, the Discom reported FY 2017 with net cash losses of ~₹ 4,720 crore; nevertheless, as part of UDAY, the losses are expected to moderate going forward driven by reduction in interest costs
- Lack of further power sector reforms as reflected in unsatisfactory progress on consumer metering besides continuance of free/subsidized power schemes
- Dependence on tariff subsidy from GoTN has increased substantially; hence, the Board is increasingly exposed to the credit risk of GoTN for its functioning
- High financial risk profile on a standalone basis arising from cash losses, poor capital structure and debt protection measures and cash flows are expected to remain stressed in medium-term

### Key Actionables

- Moderately high AT&C loss levels and billing efficiency (82%) needs improvement
- 100% metering – consumer, feeder and DTR metering
- Timely filing of tariff petition and true-up petition. Timely filing of FPPCA
- To improve cost coverage by bringing down the cost of generation
- Effective implementation of UDAY scheme mandated debt takeover (by the State Government) and efficiency improvements

## 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

- Relatively low AT&C loss at 15.93% in FY 2017 although deteriorated from 14.85% in FY 2016
- Timely receipt of tariff subsidy from the State Government
- Tariff order issued for FY 2018

### Key Concerns

- Low collection efficiency of 94.85% in FY 2017
- High power purchase cost of ₹ 5.52 per unit in FY 2017
- Non-filing of tariff petition for FY 2019 within specified timeline
- Low cost coverage ratio at 0.75x in FY 2017
- High payable days at 217 days in FY 2017 (PY: 191 days)

### Key Actionables

- Improvement in collection efficiency and reduction in AT&C loss
- Rationalize power purchase cost
- Timely filing of Tariff petition
- Reduction in payable days
- Cost coverage to be improved through suitable tariff revision and cost rationalization
- Effective implementation of UDAY



## 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

- Improvement in AT&C losses to 16.31% in FY 2017 vis-à-vis 17.62% in FY 2016
- Timely receipt of tariff subsidy from the State Government
- Tariff order issued for FY 2018

### Key Concerns

- Low collection efficiency of 95.3% in FY 2017
- High power purchase cost of ₹ 5.15 per unit in FY 2017
- Non-filing of tariff petition for FY 2019 within specified timeline
- Low cost coverage ratio at 0.80x in FY 2017
- High collection and payable days at 138 days and 258 days respectively in FY 2017

### Key Actionables

- Improvement in collection efficiency and reduction in AT&C loss
- Rationalize power purchase cost
- Timely filing of Tariff petition
- Reduction in collection period and payable days
- Cost coverage to be improved through suitable tariff revision and cost rationalization
- Effective implementation of UDAY





## Section IV Key Findings





## KEY FINDINGS

- Cost coverage ratio for most entities (25 out of 41 rated) remained low (<0.90) due to substantial increase in expenses and non-cost reflective tariffs.
- The median Cost Coverage has however improved marginally to 0.89 during the sixth rating exercise as compared to 0.87 in the fifth rating exercise. Overall, 13 power distribution entities (out of a total of 41) have shown improvement in their cost coverage ratios. Out of these, 6 discoms have shown improvement of more than 10% in their cost coverage ratio. Out of the 22 discoms reporting decline in cost coverage ratio, 6 have shown a decline of more than 10%. Tripura State Electricity Corporation Limited (TSECL) and Manipur State Power Distribution Company Ltd (MSPDCL) did not provide the accounts and for median calculation, cost coverage for 39 discoms has been taken.
- Gujarat discoms & Kanpur Electricity Supply Company Limited (KESCO) were the best performers on cost coverages. Five power distribution entities have shown more than 15% improvement in this parameter and these include West Bengal State Electricity Distribution Company Limited (WBSEDCL), Kanpur Electricity Supply Company Limited (KESCO), Gulbarga Electric Supply Company Limited (GESCOM), Ajmer Vidyut Vitran Nigam Limited (AVVNL) and Jaipur Vidyut Vitran Nigam Limited (JVVNL).
- 19 of the rated power distribution entities have shown an improvement in their Aggregate Technical & Commercial (AT&C) loss levels during FY 2017 (over the previous year). 8 utilities have reported AT&C loss levels within 15% during 2017 as compared to 12 utilities during 2016. The median loss level has declined to 21.80% in the current 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.
- Nine utilities have been able to achieve more than 10% reduction in this parameter and these include, Assam Power Distribution Company Limited (APDCL), MP Pashchim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL), Paschim Gujarat Vij Company Limited (PGVCL), Hubli Electricity Supply Company Limited (HESCOM), Jodhpur Vidyut Vitran Nigam Limited (JdVVNL), Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Jaipur Vidyut Vitran Nigam Limited (JVVNL) & Meghalaya Power Distribution Corporation Limited (MePDCL).
- Six utilities including Southern Power Distribution Company of AP Limited (APSPDCL), Himachal Pradesh State Electricity Board Limited (HPSEBL), Mangalore Electricity Supply Company Limited (MESCOM), Chamundeshwari Electricity Supply Corporation Limited (CESCOM), Maharashtra State Electricity Distribution Company Limited (MSEDCL) and MP Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL) have shown deterioration of more than 10%.



- In terms of regulatory environment, Tariff Orders for FY 2018 for 4 utilities have not been issued (including states of West Bengal, Tamil Nadu, Jharkhand and Tripura). 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 a decline in terms of the number of utilities which have timely filed tariff petition for FY 2019, with 13 utilities (out of 41) filing the tariff petition in a timely manner during the current rating exercise. The corresponding numbers for the fifth, fourth, third, second and first rating exercises were 14, 12, 15, 21 and 7 respectively.
- In terms of availability of audited accounts for FY 2017, 30 out of a total of 41 utilities have submitted audited annual accounts for FY 2017 during the current rating exercise as against 30 utilities (submission of accounts for FY 2016) during the fifth 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. The ratings will be published on the website of the Ministry of Power.





### 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>

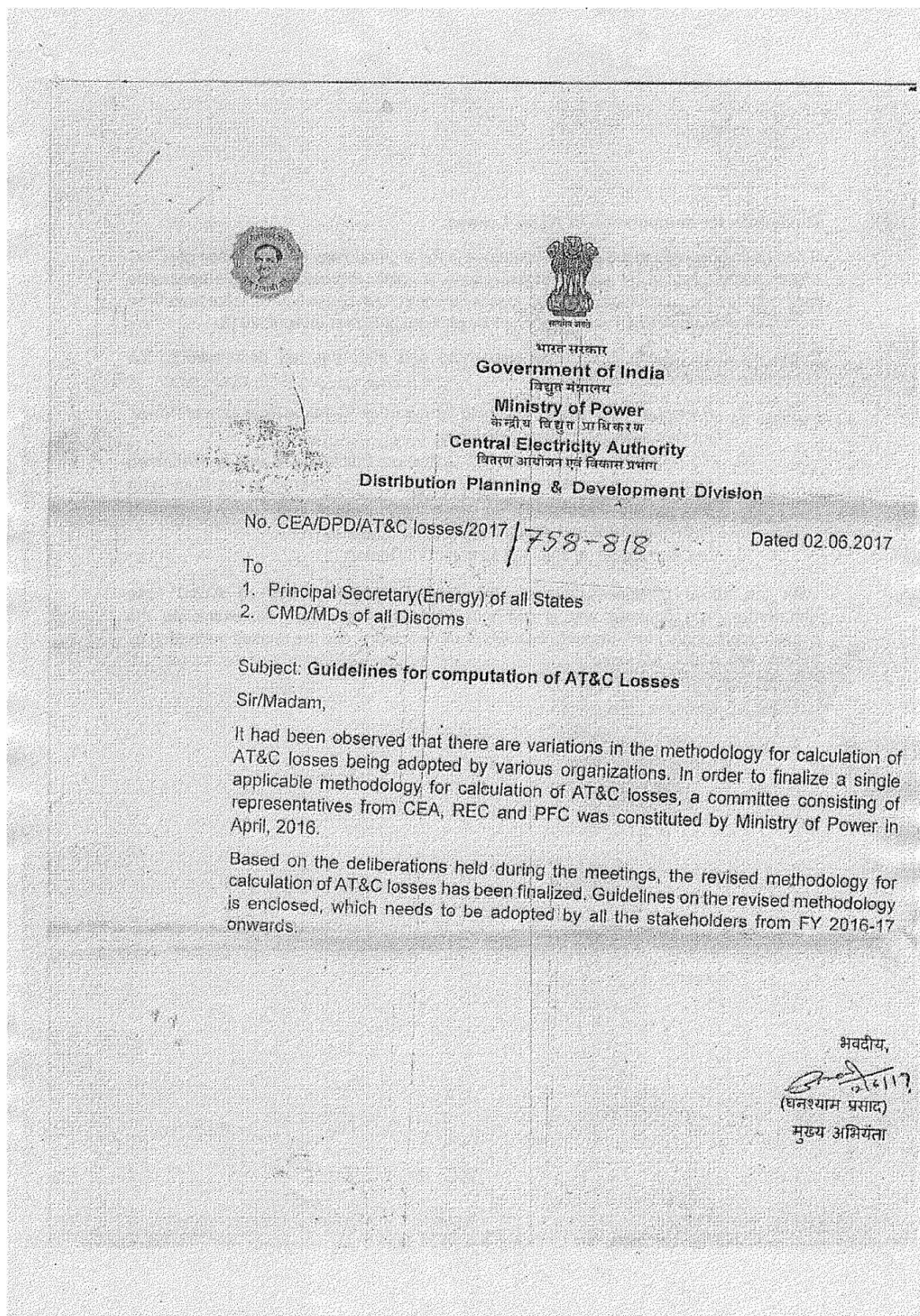


**(ii) Definitions**

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/DPD/AT&C losses/2017/758-818 dated 02.06.2017 on “Guidelines for computation of AT&C Losses” (annexed)
3.	Billing Efficiency	Net sale of energy / 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, AT&C Loss*





**Guidelines for computation of AT&C Losses:**

It had been observed that there are variations in the methodology for calculation of AT&C losses being adopted by various organizations. In order to finalize a single applicable methodology for calculation of AT&C losses, a committee consisting of representatives from CEA, REC and PFC was constituted by Ministry of Power in April, 2016.

Three meetings of the Committee were held and after detailed deliberations, the committee unanimously opined that:

1. Revenue/ Tariff Subsidy" should form part of 'Revenue from sale of Power' for calculating Collection Efficiency;
2. To reflect the true position of Collection Efficiency, **Subsidy Received** figure shall form part of 'Revenue from Sale of Energy' in the Numerator and **Subsidy Booked** in the denominator instead of **Subsidy Booked** in both numerator and denominator.
3. Unbilled Revenue shall not form part of Debtors.

With the above proposed changes, the **Revised Methodology of AT&C loss calculation** was finalized and is given in Table 1 of enclosed Annexure. All the Stakeholders under MoP, States/DISCOMs shall henceforth use the revised methodology for calculation of AT&C losses.



## Annexure

## Revised Methodology for computation of AT&amp;C Losses:

Table 1

A	Input Energy (MkWh)	Energy Generated - Auxiliary Consumption + Energy Purchased (Gross)* - Energy Traded/ Inter State Sales.
B	Transmission Losses(MkWh)	
C	Net Input Energy (MkWh)	A-B
D	Energy Sold(MkWh)	Energy Sold to all categories of consumers excluding units of Energy Traded/Inter-State Sales.
E	Revenue from Sale of Energy (Rs. Cr.)	Revenue from Sale of Energy to all categories of consumers (including Subsidy Booked) but excluding Revenue from Energy Traded /Inter-State Sales.
F	Adjusted Revenue from Sale of Energy on Subsidy Received basis (Rs. Cr.)	Revenue from Sale of Energy ( same as E above) minus Subsidy Booked plus Subsidy Received against subsidy booked during the year
G	Opening Debtors for Sale of Energy (Rs. Cr.)	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.
H	Closing Debtors for Sale of Energy (Rs. Cr.)	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)
I	Adjusted Closing Debtors for sale of Energy (Rs. Cr.)	H(i+ii)
J	Collection Efficiency (%)	(F+G-I)/E*100

K	Units Realized (Mkwh) = [ Energy Sold*Collection efficiency]	D*J/100
L	Units Unrealized (Mkwh)= [ Net Input Energy-Units Realized]	C-K
M	AT&C Losses (%) = [( Units Unrealized/Net Input Energy)*100]	L/C *100

**Note:**

- i) \*DISCOMs are required to give gross energy purchased i.e., Total Power Purchased including transmission losses.
- ii) Debtors for trading of power have not been adjusted for calculation of collection efficiency since information is generally not available in notes to accounts.
- iii) Figures in above table, wherever available, should be consistent with the information contained in Annual Report/ Accounts.
- iv) Calculation of AT&C losses in the format given in Table 1 should form a part of annual accounts of all utilities selling directly to consumers as notes to accounts or annexure.
- v) Details of subsidy booked during the year and subsidy received against current year and against previous years as given in Table 2 should form part of annual accounts as notes to accounts or annexure.

**Table 2**

Details of Subsidy Booked and received	Amount
1. Subsidy Booked during the year	
2. Subsidy received during the year (Rs. Cr.)	
i) Subsidy received against subsidy booked for current year (Rs. Cr.)	
ii) Subsidy received against subsidy booked for previous years (Rs. Cr.)	

## (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>	
	$\frac{\{AT\&C \text{ in } FY(T-2) - AT\&C \text{ in } FY(T-1)\}}{\{AT\&C \text{ in } FY(T-2) - \text{Benchmark } AT\&C\}}$ 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>	
	$\frac{\{BE \text{ in } FY(T-2) - BE \text{ in } FY(T-1)\}}{\{BE \text{ in } FY(T-2) - \text{Benchmark } BE\}}$ 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>
	$\frac{\{ACP \text{ in FY(T-2)} - ACP \text{ in FY(T-1)}\}}{\{ACP \text{ in FY(T-2)} - \text{Benchmark ACP}\}}$ Where, ACP= Average Cost of Power Purchase, Benchmark ACP= Rs 4/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/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 : Wherever not applicable, these marks will be allocated to AT&amp;C Loss parameter</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><i>Advance payment of Subsidy</i></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><i>Where Subsidy not paid in advance</i></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
<p><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></p>		

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>	
	$\frac{\{CCR \text{ in } FY(T-1) - CCR \text{ in } FY(T-2)\}}{\{ \text{Benchmark CCR} - CCR \text{ in } F(T-2)\}}$ 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
	<i>(1% decrease in difference leads to reduction by 1/3 mark)</i>	
<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
	$= 90$ 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



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>		
<b>VI</b>	<b>Audit Qualifications</b>	<b>0</b>
	Non-provision / payment of Employee related liabilities / Statutory dues in the accounts.	-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 =  $\frac{(\text{PAT} + \text{Depreciation, Amortisation} + \text{Interest charged to operation})}{\text{Interest charged to operation}}$
- Debt Equity Ratio =  $\frac{\text{Total Borrowings}}{\text{Total Network}}$

Total Borrowings = Long term debt + Short term Debt

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

□□□



सत्यमेव जयते

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