

BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

4th Floor Singareni Bhavan, Red Hills, Hyderabad – 500 004

OP No. 26 & 27 of 2017

IN THE MATTER OF

Petition requesting the Commission

1. To review power consumption estimates.
2. To review power purchase cost.
3. To direct DISCOMs to improve safety and avoid deaths due to shocks.
4. To allow the objector to be heard in person before the Commission takes any decision on this application of the DISCOMs.

IN THE MATTER OF

Name and full address of the petitioner:

People's Monitoring Group on Electricity Regulation

139, Kakatiya Nagar, Hyderabad – 500008

Represented by

M.Thimma Reddy

Convenor

People's Monitoring Group on Electricity Regulation

139, Kakatiya Nagar, Hyderabad – 500008

And

Name and address of the Respondents:

Chairman and Managing Director

Eastern Power Distribution Company of Andhra Pradesh Ltd,

Southern Power Distribution Company of Andhra Pradesh Ltd,

BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

4th Floor Singareni Bhavan, Lakdi-ka-pool, Red Hills, Hyderabad – 500 004

The following submission of objections and suggestions on the ARR and tariff proposals of APSPDCL and APEPDCL for the year 2018-19 are with reference to the public notice dated 29-11-2018.

SALES FORECAST

1.1 According to the present ARR and tariff proposals total power requirement in the state during FY 2019-20 will be 67,713 MU (EPDCL = 24,606 MU and SPDCL = 43,108 MU). According to the load forecast for 4th and 5th control periods filed by APDISCOMs before the Commission three months before the filing of ARR and tariff proposals total power requirement in the state during the FY 2019-20 will be 66,981 MU (EPDCL = 24,508 MU and SPDCL = 42,473 MU). This shows that power requirement estimate arrived in the tariff proposals is 732 MU higher than that arrived in the load forecast exercise. Load forecast estimate in turn is higher than that estimated by CEA in its EPS survey. CEA's EPS survey figures over the period were shown to be overestimates. Given these facts the power requirement estimate of the APDISCOMs for FY 2019-20 needs to be closely scrutinised.

Consumption estimate for 2018-19:

| DISCOM | DISCOM's proposal (MU) | ERC Order (MU) | Present estimate (MU) |
|--------------|------------------------|----------------|-----------------------|
| EPDCL | 21,977 | 20,821 | 20,931 |
| SPDCL | 39,566 | 38,032 | 38,393 |
| Total | 61,543 | 58,853 | 59,324 |

1.2 For the FY 2018-19 while DISCOMs estimated power requirement of 61,543 MU as a part of their ARR and Tariff proposals present estimate shows this requirement to be 59,324 MU. This shows that DISCOMs over estimated power requirement for the year by more than 2,000 MU. This past experience also demands close scrutiny of APDISCOMs' estimate of power requirement for the FY 2019-20.

1.3.1 Under SPDCL agriculture sales during 2018-19 are reported to be 13.19% excess over ERC approved figure and 14.52% more than the agriculture sales recorded during 2017-18. Between April 2018 and March 2019 number of agriculture services and connected load increased by 5.45%. During this period there is no increase in number of hours of electricity supply to agriculture. In such circumstances it is difficult to comprehend such increase in agriculture consumption in SPDCL area during 2018-19. Over and above this inflated

consumption figure for FY 2018-19 SPDCL is projecting further 4.03% increase in agriculture consumption during 2019-20. In the case of EPDCL while agriculture consumption during 2018-19 is reported to be less than that allowed by the Commission during FY 2019-20 it is projected to increase by 9.73%. There is no explanation for such high increase in agriculture consumption in EPDCL area.

1.3.2 Both EPDCL and SPDCL have shown substantial increase in agriculture consumption even in the presence of programmes related energy efficient irrigation pump sets and solar irrigation pump sets. The Commission has directed the DISCOMs to file periodical reports on implementation of energy efficient pump sets. But the DISCOMs have not placed these reports on their websites.

1.3.3 In Para 2.2.2 SPDCL in its filing has mentioned bifurcation of feeders as one of the steps taken to further reduce losses. When we raised the issue of bifurcation feeders in the process related to Load forecasts and Resource Plans for 4th and 5th control periods both the DISCOMs replied that there are not taking up any bifurcation of feeders due to virtual separation of feeders serving agriculture services. In this context we request the Commission to direct both the DISCOMs provide information related to the number of feeders serving agriculture services, how many of them are bifurcated until now and how many of them are going to be bifurcated during the ensuing financial year i.e., 2019-20.

1.4.1 APDISCOMs have claimed to have used modified trend method to project electricity sales during 2019-20. According to EPDCL's filing, "The licensee has adopted a modified trend approach by considering the trend of actual of H1 FY 2017-18, FY 2017-18 and H1 FY 2018-19 and the same growth rate was adopted for H2 of FY 2018-19 duly removing exceptions/outliers due to sudden increase/decrease." (Para 6.1.2) But the consumption growth rates adopted by EPDCL for FY 2019-20 are well beyond the growth rates recorded during FY 2018-19. According to EPDCL's filing while LT supply grew between 5.45% to 5.95% during FY 2018-19 it is projected to increase by 8.80% during FY 2019-20, while HT supply grew between 8.19% to 9.58% during FY 2018-19 it is projected to increase by 18.04% during FY 2019-20. Total supply grew between 6.75% to 7.64% during FY 2018-19, it is projected to increase by 13.18% during FY 2019-20. The consumption growth rate envisaged for the ensuing financial year is nearly double to that achieved during the present financial year.

1.4.2 Similarly, in the case of SPDCL also while electricity supply has reportedly recorded a growth rate of 12.35% during the FY 2018-19 it is again projected to increase by 12.28% during the coming financial year 2019-20. These high consumption growth rates need to be re-examined.

T&D losses

| DISCOM | 2019-20 | | | | 2018-19 |
|--------|------------------------|------------|-----------------|----------------|-------------------------|
| | Power procurement (MU) | Sales (MU) | T&D Losses (MU) | T&D Losses (%) | Estimate T&D Losses (%) |
| EPDCL | 24,606 | 22,168 | 2,438 | 9.91 | 6.43 |
| SPDCL | 43,108 | 38,051 | 5,057 | 11.73 | 8.23 |

1.5.1 APEPDCL and APSPDCL show higher T&D losses during 2019-20 than they have achieved in the previous years. During 2018-19 T&D losses of APEPDCL accounted for 6.43% of the power procured and during the ensuing year (2019-20) these losses are estimated to be 9.91%. What is more website of APEPDCL claims AT&C losses to be 4.99%. It implies that T&D losses must be even less. Similarly, in the case of APSPDCL during 2018-19 T&D losses stood at 8.23% and during the ensuing year (2019-20) these losses are estimated to be 11.73%. Over the period in fact these losses shall come down. ARRs for the ensuing year present an opposite picture.

1.6 When the estimated electricity consumption growth rates are moderated to reflect reality and estimated T&D losses are brought down to the previous or even to lower levels the quantum of power to be procured will also come down.

POWER PURCHASE:

2.1 APDISCOM's ARR filings provide a misleading picture about electricity available to the state. At most of the places APDISCOMs mention electricity available during the FY 2019-20 as 68,583.87 MU, power requirement as 67,713.49 MU and resulting surplus to be 870.38 MU. But actual power available to the state during FY 2019-20 will be 72,038.93 MU (72,705.72 MU[Gross power available] – 666.79 MU[Swap power availment], p.24 SPDCL ARR). When this actual power availability is taken in to account actual surplus power in the state will be 4,325.44 MU. DISCOMs have shown lower quantum of surplus power because of swapping some of the excess power with other states. In the long-term load forecast for 4th control period submitted to the Commission, APDISCOMs have projected availability of 77,998 MU during the year 2019-20. If this figure is taken in to account surplus power at the disposal of the state will be much more.

2.2 As most of the states in the country have surplus power it is doubtful to find states to take this surplus power at the disposal of APDISCOMs. During the year 2018-19 power sent to other states in the name of swapping was only 252.16 MU only while they envisage to send 4,121.85MU out to other states during the year 2019-20. For the year 2018-19 the Commission has identified surplus of 7,829.03 MU and directed the Licensees to sell the surplus power available with them up to the last unit (Paras 214 and 215). From the present filings it is not clear how much of this surplus power was disposed off in the market. It is also pertinent to quote from the Commission's tariff order for the year 2018-19, "The Commission

observes here that out of the surplus energy of 12013.95 MU determined by it for FY 2017-18 ... , they have succeeded to sell only 1310.80 MU..." Given the past experience with licensees' inability to dispose of surplus power it is prudent not to procure any additional capacity over and above the needs of the state.

2.3 According to the Commission's tariff order for the year 2018-19 total power available to the state during that year stands at 68,671.81MU (Table 16, p.239). This is higher than the power requirement as presented by the DISCOMs for the year 2019-20. This shows that there is no need for additional, new power procurement by APDISCOMs during the year 2019-20. In the background of surplus electricity available to the state already we request the Commission not to approve any new power procurement proposals from the DISCOMs during the ensuing year.

2.4 For the year 2018-19 the Commission in its tariff order estimated availability of 29,160 MU from APGENCO's thermal power plants (Table 16, p.239). APDISCOMs have shown availability of 24, 018 MU from APGENCO's thermal power plants during 2019-20 (para 3.3.2 APSPDCL). This shows that APDISCOMs under estimated availability of power from APGENCO's thermal power plants during 2019-20 by 5,000 MU.

2.5 Similarly, in the case of Central Generating Stations (CGS) while for the year 2018-19 the Commission in its tariff order estimated availability of 16,750 MU, APDISCOMs have shown availability of 16, 064 MU from CGS. This shows that APDISCOMs under estimated availability of power from CGS during 2019-20 by nearly 700 MU.

2.6.1 Further, the DISCOMs' estimate of power available to the state during the year 2019-20 is an under estimate as they did not include Simhapuri Energy Private Ltd., and Hinduja National Power Corporation Ltd., (HNPCL) plants.

2.6.2 As per the interim order issued by APTEL, the APDISCOMs have to purchase power from the project of HNPCL (1040 MW), if it fits into merit order, and the DISCOMs already started purchasing power from this plant. As long as the interim order of the APTEL continues to be in force, the DISCOMs have to take into account availability of about 7288 MU from HNPCL. In the background of the APTEL's order absence of HNPCL in the list of plants available to the state is intriguing. Are not the APDICOMs aware about binding nature of APTEL's Order? Is it being side lined to benefit a select few?

2.6.3 The Commission has given consent through an order dated 14-08-2018 to the PPA between the APDISCOMs and Simhapuri Energy Private Ltd., for procurement of 400 MW of capacity under DBFOO for a period of 12 years. Despite the Commission's consent to the PPA it is not included in the list of power plants available to the state. When we raised the issue of absence of this plant in the list of plants available in the Load forecast for 4th and 5th control periods APDISCOMs replied, "Simhapuri 400 MW will be considered to include under power availability as per APERC approval accorded in its order dated 14.08.2018." (APEPDCL's letter dated 16-11-2018) About 2803 MU power will be available from this plant during the coming financial year.

2.6.4 If availability of power from HNPCL and Simhapuri is taken into account for the year 2019-20, the actual available power for state will be much higher during the ensuing year and so will be surplus power. In fact surplus power available to the state may account for nearly one third of the total power available. This huge quantum of surplus power with its implication of fixed cost burden demand re-examination of power procurement practices of APDISCOMs.

2.7 Sembcorp Gayatri Power Limited (SGPL) under DBFOO makes surprising presence in the list of power plants available during the FY 2019-20, even when Simhapuri Energy Private Ltd., plant which got the Commission's consent as mentioned above is excluded from the list. When Simhapuri Energy Private Ltd., is there, is there need to look at SGPL? APDISCOMs propose to procure 3,600 MU during 2019-20. When APDISCOMs already have approved PPA with Simhapuri Energy Private Ltd., there is no need to go in for SCPL's power.

2.8 According to APDISCOMs' filings APGENCO's new power plants, Dr.NTTPS-V (800 MW) and DSSTPS-II (800 MW) are expected to be commissioned by Dec'19 and Jan'20 respectively. APDISCOMs propose to purchase the power from these plants subject to the approval of Hon'ble APERC. As the state already is surplus in power inclusion of these plants will only add to the fixed cost burden without any benefit to the state. As the state is already in power surplus position we request the Commission not to allow procurement of power from these new plants. APDISCOMs have claimed Rs. 83 Crore towards fixed cost for these new plants. Excluding these two plants will help to reduce burden on the consumers to that extent.

2.9 DISCOMs' submissions show power procurement from Spectrum and Lanco gas based power plants, even after PPAs with these plants expired. As gas production at Reliance's KG D-6 wells has completely stopped, drastically reducing gas availability from the KG basin gas fields and also as the state is already surplus in power renewal of PPAs with these plants shall be set aside.

T&D COSTS:

3.1 APTRANSCO and APDISCOMs are supposed to file ARR and tariff proposals of transmission and distribution businesses respectively for the 4th control period under MYT framework. According to APDISCOMs' retail supply ARR and tariff proposals these will be filed at a later date. Given this fact it is doubtful on what basis APDISCOMs are claiming T&D costs as a part of retail supply ARR and tariff proposals. APTRANSCO and APDISCOMs have already filed most of the details related to transmission and distribution network enhancement and related investments before the Commission as part of Load forecast and Resource Plans for 4th and 5th control periods. We fail to comprehend the reasons that prompted these utilities from not filing the ARR and tariff proposals of transmission and distribution businesses when they have all the information needed for that purpose.

3.2 According to APSPDCL's filings T&D network cost is expected to increase from Rs. 1.25 per unit in 2018-19 to Rs. 1.63 per unit in 2019-20. This shows that network costs of SPDCL

during the ensuing year will be increasing by 30.4%. No justification is provided for the same.

Electrical accidents:

| Year | Particulars | EPDCL | SPDCL | Total |
|--------------------------------------|-------------------------------|-------|-------|-------|
| 2017-18 | Deaths due to Dept faults | 58 | | |
| | Deaths not due to Dept faults | 220 | | |
| | Total | 278 | 304 | 582 |
| | No. of cases ex-gratia paid | 78 | 116 | 193 |
| 2018-19 (1st Half) | Deaths due to Dept faults | 38 | | |
| | Deaths not due to Dept faults | 125 | | |
| | Total | 163 | 172 | 335 |
| | No. of cases ex-gratia paid | 24 | 21 | 45 |

4.1 The above figures do not include accidents involving department personnel. While EPDCL provided information about these accidents SPDCL did not provide the same. According to EPDCL's filing 4 department personnel died due to electrical accidents during 2017-18 and one person died during the first half of 2018-19.

Further, fatal accidents have been steadily increasing:

| Year | EPDCL | SPDCL | Total |
|------|-------|-------|-------|
| 2014 | 150 | 223 | 373 |
| 2015 | 152 | 228 | 380 |
| 2016 | 151 | 320 | 471 |
| 2017 | 201 | 242 | 443 |
| 2018 | 278 | 304 | 582 |

4.2 The above table shows that there is no let up in the saga of deaths and destruction due to electrical accidents. The number of deaths increased from 443 in 2016-17 to 582 in 2017-18. First half of 2018-19 already registered 335 deaths due to electrocution. It is needless to say that most of these deaths are avoidable. The CEA has laid down detailed Regulations on safety measures to be taken up by the licensees. Licensees are not implementing these Regulations properly. Operation and maintenance of distribution network is in a very unsafe condition. At many places, especially in rural areas, bare live parts

in DTRs and associated bare lines and wires are not kept inaccessible to living beings; barriers, fences and enclosures and minimum clearances to ground are not maintained so that live parts are out of reach to prevent fatal shocks in violation of CEA's Regulations. A B switches at DTRs are also not maintained properly. This is despite the fact that hundreds of crores are being spent on distribution network.

4.3 To understand these accidents and to plan preventive steps properly we request the Commission to direct the licensees to provide information on break-up of accidents based on electrical location (substation, 11 kV line, Distribution transformer, LT line, consumer location etc) and causes for these accidents. Last year Telangana NPDCL had presented this, which showed that most accidents are due to DISCOM negligence. It is not enough to make ex-gratia smooth and plan for it. Prevention is equally or more important.

Prayer to the Commission

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2. To review power purchase cost.
3. To direct DISCOMs to improve safety and avoid deaths due to shocks.
4. To allow the objector to be heard in person before the Commission takes any decision on this application of the DISCOMs.

Deponent

14-12-2018

Hyderabad