

**BEFORE THE MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**  
**5th Floor "Metro Plaza," Bittan Market, E-5, Arera Colony,**  
**Bhopal-462 016**

**IN THE MATTER OF:**

**Comments and Suggestions on Aggregate Revenue Requirement and Tariff  
Petition for Financial Year 2019-20 (Revised) for Distribution Utilities in  
Madhya Pradesh**

**SUBMISSION FROM PRAYAS (ENERGY GROUP), PUNE**

23<sup>rd</sup> June 2019

MPERC vide its public notice dated 31<sup>st</sup> May 2019, invited comments and suggestions on the ARR and tariff proposals of distribution utilities (Petition No. 08/2019). The present submission is in response to the said notice and the petitions and formats filed by the utilities. We request the Commission to accept this submission on record and to allow us to make further submissions in this matter, if any. At the outset, we wish to clarify that we are not an active stake holder in the power sector in Madhya Pradesh and this submission is based on study of relevant documents, few visits to Madhya Pradesh and our experience of working with the regulatory processes in other states. With increased sales migration to captive and open access, reducing cross-subsidy, increasing cost of supply and a large number of newly electrified and poor consumers in need of tariff support, the DISCOMs are facing an inevitable transition and are also on the brink of a major financial crisis. Our endeavour via this submission is to share ideas to improve performance and efficiency of the DISCOMs and share relevant lessons from other states.

## **1 Regulatory processes**

### **1.1 Need to implement MYT framework**

The present ARR for MYT FY 2017-18 to FY 2019-20 & Tariff Petition for FY 2019-20 has been filed under Tariff Regulations 2015 and First amendment issued in the said Regulation. The objectives behind the introduction of a multi-year tariff process is to allow consumers and the electricity companies better certainty in terms of costs and tariffs. This also helps in encouraging sound investments and facilitating prudent planning. Since the regulated business is mostly of cost-plus nature, the MYT exercise also helps in creating certain incentives and disincentives by specifying operational norms and introducing controllable and uncontrollable factors. With many changes taking place in the sector, such as increasing open access and falling prices of renewables and storage, it is crucial for regulatory commissions to provide regulatory certainty for small consumers and investors alike and this underscores the need for a well-designed MYT framework that can help the sector planning in this changing environment.

Considering such importance of MYT process, we feel that it is extremely important to first finalise the MYT regulations for the next control period. The present tariff petition should be seen as a stop-gap arrangement applicable only for the current financial year. Therefore, we submit that the Commission should initiate due process to formulate the MYT regulations for the next control period at the earliest and ensure that the new regulations come into force on or before the end of the calendar year 2019. However, before initiating the MYT amendment process, it would be useful if the Commission, similar to the CERC, publishes data regarding past performance and extent of compliance with existing regulations over the past control period. CERC directed all generating companies<sup>1</sup> and licensees to submit such information before finalising the MYT regulations 2019 and the said operational data was published by CERC<sup>2</sup> prior to the public consultation process. Lack of such data in public domain makes it difficult for consumers to assess the effectiveness of the existing regulations and the kind of measures needed to improve the same. Therefore, we submit that before undertaking the due regulatory process for formulating new MYT regulations, the Commission should direct all the regulated entities to submit detailed performance and compliance data as per formats that it considers appropriate.

## 1.2 True up of past years

Truing up of costs for past years provides for a periodic assessment of the performance and financial position of the DISCOMs in the state. In fact, the financial predicament of Madhya Pradesh DISCOMs have been challenging to assess due to lack of regular true-ups even in the past. Madhya Pradesh declined to participate in the Financial Restructuring Plan Scheme in 2011-12 stating that their losses were insignificant. At the time of the launch of the scheme, true-ups had not taken place since FY08 for the DISCOMs. By the time, the Ujwal DISCOM Assurance Yojana was launched in 2015; the accumulated losses were estimated to be a whopping Rs.34, 700 Crores. Regular true-ups would help stakeholders understand the extent of the financial crisis so timely steps can be taken to address it.

True-ups from recent years of the State Generating Company and the State Transmission Company have resulted in substantial increase in the revenue to be recovered from DISCOM consumers. The true-up for the DISCOMs seems to have taken place last in FY 2013-14. Therefore true-ups for based on audited accounts are due for at least 4 years. Further delays in such true-ups will only increase the carrying cost of the amount to be recovered from consumers. It is submitted that the true-ups for FY15, FY16, FY17 and FY18 take place before the end of the financial year to prevent unnecessary build-up of carrying costs. Therefore, we submit that the Commission should direct all the regulated entities to submit petitions for truing up of the past financial years. It is important to highlight here that if the licensees do not comply with such directions, the Commission is empowered to initiate such processes suo motu. Further, the Commission can even consider disallowing of carrying cost if the licensees delay the true-up process.

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<sup>1</sup> <http://cercind.gov.in/2017/orders/L.pdf>

<sup>2</sup> [http://cercind.gov.in/O&M\\_Data.html](http://cercind.gov.in/O&M_Data.html)

## 2 Tariff design and implications of tariff rationalisation

The present petition seeks a 12% increase in tariffs to cover the claimed costs. This includes a sharp increase in domestic category (LV 1) tariff for which, the average tariff proposed is Rs. 6.83/kWh, without cross-subsidy. The proposal to abolish rebates for “supply through feeders feeding supply to predominantly rural area” will further increase tariffs for such consumers. The tariff design also does not cross-subsidise small LT consumers. For example, the tariff for Railway Traction (HV 1) is proposed to be lesser than that of agricultural consumers (LV 5) with an average tariff of Rs. 4.86, covering only 71% of cost of supply.

The DISCOMs have proposed simplifying tariff design by removing separate categories for rural and urban consumers for all LV categories and merging various sub-categories. This is a positive step as rural consumers are provided the same quality of supply and service as urban consumers

With increased electrification in the recent years in the state, it is important to ensure affordability of supply for small consumers. Considering this, the principles of tariff design can have the following provisions:

### 2.1 Linking tariffs of small consumers to inflation to enable automatic and certain tariff increase

- SERCs can link tariffs for all small consumers (say, those who use less than 300 units) to the rate of inflation or say, inflation minus 2%.
- LT industrial, commercial along with domestic category consumers should be differentiated based on slabs (3-4 slabs) in order to implement this scheme.
- The tariffs for such consumers should be revised automatically at the beginning of every financial year based on the previous year's inflation index.
- The charges and the escalation in tariffs should be fixed for the MYT period and should not include FAC and other additional charges. These additional charges will reduce the certainty to tariff.
- Post the MYT period, the tariff design and the charges should be evaluated and re-determined on the basis of affordability, certainty of tariffs and DISCOM finances.

While this measure by itself will not be sufficient to tackle the larger issue of DISCOM's finances, it will help by reducing politicisation of tariff and while ensuring certainty of revenue increase and protecting small consumers from undue tariff shock.

### 2.2 Annual consumption limit for low income consumers

Presently, consumers with 100 watts sanctioned load (LV1.1) are permitted a monthly consumption limit of 30 units, which attracts an energy charge of Rs. 3.20 /unit. If consumption increases in a month to more than 30 units, the consumer would not be eligible for concessional tariffs and would be subjected to energy charge of Rs. 4.10 paise with a telescopic increase in tariffs after the first 50 units. Considering that consumers in this category tend to have low income levels, it would give them more flexibility, if consumption limits were not monthly but *annual*. Giving a consumption limit of 360 units in a year would enable the consumers to adjust their consumption level based on need and still retain concessions. The Maharashtra, Chattisgarh and Andhra Pradesh Commission

follow such similar tariff design and this change in definition of such consumer category has provided significant relief to many poor consumers. As their consumption is low, the revenue impact on the DISCOMs need not be substantial.

### 2.3 Uniform tariffs for consumers using less than 300 units

The proposed per unit tariffs for LV industrial (LV 4) and LV non-domestic consumers (LV 2) are higher than that of HV industrial and non-industrial (HV 3.1 and 3.2). Their ratio of ABR/ACoS is at 134% and 137% respectively, whereas HV 3.1 and 3.2 are paying at 116% and 124% of cost of supply. Further, due to categorisation based on type of use (e.g. - industrial, commercial) many enterprises which run out of homes become vulnerable to harassment and makes them liable for unauthorised use as defined in Section 126 (6) (b) (iv) of the Electricity Act. In order to ensure affordable power for small consumers while ensuring revenue neutrality for the Discoms, the Commission can introduce a general tariff category for such consumers on the following lines:

- Set uniform tariffs for all LT Domestic, Commercial and Industrial consumers consuming upto 300 units per month and with connected load of less than 10 kW.
- This would enable home-based enterprises to obtain separate connections based on type of use without facing any tariff shock.
- The 300 units of consumption can be subject to telescopic tariffs (say, with 3-4 slabs), as has been presently proposed for LV 1.2. However, these slabs as well as the tariffs should be uniform across LT Domestic, Commercial and Industrial consumers.
- For consumption above 300 units, the tariff slabs as well the tariffs can vary across the categories.
- Such consumption can be charged high tariffs to ensure that the proposal is revenue neutral for the Discoms.
- This would ensure certain level of intra-category cross subsidisation and provide price signals for efficient use of power.

### 2.4 Elimination of minimum consumption charges

Minimum consumption charges that is levied for most LV categories, discourages efficient use of electricity and as it is independent of consumption, it unnecessarily penalises consumers facing power shortages. It is submitted that the practice of levying minimum consumption charges be stopped. In Case No. 3 of 2018, MPERC noted the DISCOMs submission that they be allowed to recover minimum charges as fixed charge recovery is not reflective of costs. Making fixed charges reflective of fixed costs would imply doubling of fixed charges. Such an increase could also counter-intuitively encourage increased migration of cross-subsidising consumers especially to captive solar and group-captive options. This is because the fixed charge payments by industrial consumers would then be high enough to account for 20% of the capital expenses required for a 1 MW solar plant, making switching to this option, a viable alternative. It could also encourage LT consumers to install rooftop solar plants in a bid to reduce their demand. Thus, making fixed charges reflective of costs could further reduce the revenue recovery of DISCOMs and may not be in their best interest. At the

same time, the practice of levying minimum charges is regressive and does not incentive efficiency and must be discontinued.

## 2.5 Ensuring tariffs for metered consumers are lower than unmetered for the same category

The DISCOMs have proposed to merge different slabs of unmetered consumers to a single slab. It should be ensured that the effective tariff for unmetered consumers do not dis-incentivise switching to metered connection. This can happen if tariffs for metered consumers in a category are higher than that of unmetered consumers. Such signals should not be part of tariff design.

## 2.6 Ensuring good quality supply and service for rural consumers

As mentioned earlier, if rural and urban domestic consumers are paying the same tariffs, steps should be taken to hold DISCOMs accountable for the same supply and service quality in urban and rural areas. In this regard, the Commission can take the following steps:

- Hold public hearings exclusively for supply quality related issues, as these do not receive as much attention during tariff revision processes.
- Amend the Distribution Performance Standards regulations to :
  - Set similar guaranteed standards of performance for rural and urban areas (cities and towns) for responding to fuse-off calls, restoration of supply on account of line breakdowns, replacement of defective meters and for billing complaints.
  - Re-introduce automatic compensation to consumers based on few parameters, which can be remotely tracked to begin with. This could begin with tracking feeder level outages, billing errors, and delay in providing connections.
- Amend the tariff regulations to link the DISCOMs' overall performance standards to Return on Equity that they can claim. The return on equity could increase by say, 1% or reduce by 1% in case of over/under achievement (assessed in grades) of overall standards.

## 3 Reporting of revenue subsidy

Domestic and Agricultural consumption forms 66% of total sales in Madhya Pradesh, with agriculture having a share of 38% of total sales. These are also categories which receive government subsidy. The proposed average tariff for agriculture is Rs. 5.77/kWh and that of domestic is Rs. 6.83/kWh. Considering that domestic category tariff (including subsidy) is at cost of supply and agriculture tariff (including subsidy) covers 85% of cost of supply, there is huge dependence on government subsidy. However, the DISCOMs have not provided any information on the receipt of revenue subsidy and payment delays. As highlighted earlier, the absence of audited accounts and lack of true-up further aggravates this issue. Since the Discoms are dependent on subsidy for a large portion of their revenue, any delays in subsidy payments are likely to adversely affect the working capital requirements and thus, further exacerbate the financial stress.

In the tariff and true-up orders and petitions, the Punjab ERC and Punjab State Power Corporation Limited (PSPCL) respectively have been reporting category-wise information on subsidies, delays in subsidy payment and interest cost due to the same. The PSPCL, based on the Punjab ERC directions, is also providing information on subsidy payments on a fortnightly basis. The TNERC releases a subsidy order every year which provides details on category-wise subsidies and revision in subsidy

amounts due to variation in sales. Considering such good practices and the extent of reliance on subsidy for their revenue requirements by the MP DISCOMs, we propose that the Commission can direct the discoms to submit the following information on a quarterly and annual basis:

- Subsidy promised and paid during the concerned period and change in subsidy claimed due to revision of sales, if any.
- Schedule of payment of subsidies and deviation from the same on a monthly basis.
- Delays in subsidy payments in days along with short-term loans and accumulating interest payments incurred due to delays.
- Detailed break up of payments which include budgetary payments, subsidy adjustments with electricity duties collected and adjustments in loan repayments.
- Break up of revenue subsidy paid to each consumer category or class of beneficiaries in the period. This should provide details on tariff subsidy, subsidy on fuel surcharge levied, if any, as well as subsidy in lieu of rebates, if any.
- Break up of subsidy provided to each category to compensate for pending dues or arrears.
- Break up of subsidised sales on a category-wise basis along with subsidised and unsubsidised tariff

The quarterly reports (similar to SoP compliance reports) as well as the annual reports should be vetted and approved by the Commission and be available on its website. The information as well as analysis based on the same should be part of the tariff and true-up petitions and orders.

#### **4 Estimation of Agricultural sales**

While agricultural sales account for around 38% of the total sales, there seems to be lack of sufficient data to back the robustness of the Discoms' sales projections. In fact, the Commission itself seems have raised such doubts in the past tariff revision processes. In this regard, it seems important to quote the following observations made by the Commission in the last two tariff orders:

- **Retail Supply Tariff Order FY 2016-17 - Petition No.73/2015 Para 3.5:** *...the Commission considers it prudent to accept the total quantum of energy sale as filed by the Petitioners. However, the analysis of the sale filed in the petition in the consumer categories LV-1 domestic and LV 5.1 agriculture indicated that the sale filed by the Petitioners in these two consumer categories has not been appropriately projected. The Commission is of the view that the projection of sale in domestic category is not supportive to the fact that the feeder separation programme is presently undergoing, at a large scale. This would yield in further increase in the sale of domestic consumer category. On the other hand, the sale for the agriculture category has been projected on higher side when compared with the trend observed in past few years. The Commission has, therefore, appropriately realigned the projections of sale in these two consumer categories.*
- **Retail Supply Tariff Order FY 2017-18 - Petition No.71/2016 Para 2.5:** *The Petitioners have requested for revision of norms for assessed consumption of unmetered temporary agriculture consumers under LV 5.1. Vide letter dated 12 January, 2017 the Commission has asked the Petitioners to submit the detailed study demonstrating the need for revision of norms for assessed consumption of unmetered temporary agriculture under tariff schedule LV 5.1. In reply dated 20 January, 2017 East Discom has submitted a study which was conducted for assessment*

*of consumption of unmetered temporary agriculture consumers. The study was conducted only for six numbers 11 kV, agriculture feeders of Narsinghpur district, while West and Central Discoms have not submitted any study in this regard. Further, the Commission observed that sample size considered by the East Discom is inadequate and is neither representative of East Discom nor the State. Therefore, the Commission has not considered the proposal of the Petitioners and decided to continue with the existing assessed consumption norms for unmetered temporary agriculture under LV 5.1tariff category.*

Given the large share of agricultural sales in the total consumption as well as its direct link to loss estimation and subsidy claims, it is extremely important to ensure rational and realistic sales projection. Madhya Pradesh has separated its agricultural feeders and therefore, feeder meter data could be a good starting point for better estimating agricultural consumption. As per the data submitted in the petition it appears that 100% meterisation of feeders has not yet happened for all Discoms. Further, it is not clear whether the meters that are being installed or replaced are AMR meters or meters that would be read manually.

Considering the technological advancements in metering and the ease, with which large data can be stored, processed and analysed, it is extremely important that the 100% meterisation should mean 100% AMR (Automatic Meter Reading) meterisation of the feeders and the entire feeder load data should be automatically uploaded on a central server. Only such automation of metering systems can bring in the necessary accuracy and reliability in sales projections. It is important to note that Commissions such as Punjab, Maharashtra, and Haryana have followed a feeder data based approach to estimate and even restate agricultural sales. Further, the Commission should initiate an independent study to assess agricultural consumption based on feeder input data and sample surveys. The Maharashtra Commission has recently initiated such a process<sup>3</sup> and the report is expected by early next year.

## **5 Managing the agriculture supply challenge**

Electricity supply reliability and affordability for irrigation is an important issue as it concerns livelihoods of the rural poor and food security of the country. Measures such as feeder separation have helped to manage the agricultural demand to a certain extent, but they are not sufficient. The availability of the electricity grid in every village coupled with the national feeder separation programme makes the “solar feeder” approach a cost-effective and rapidly scalable proposition, which is imminently feasible. It also addresses the urgent need for providing agricultural consumers with reliable and affordable daytime supply without increasing the subsidy requirements. Three on-going developments make such an approach possible.

- Low cost of solar power, at around Rs 2.75-3/unit and at a fixed price contract for 25 years due to absence of any fuels is already a reality.
- States have to exponentially increase their solar procurement to fulfil the national objective of increasing the use of solar power
- Agricultural feeder separation, which separates the lines carrying electricity to pumps and villages.

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<sup>3</sup> <https://www.merc.gov.in/faces/merc/common/outputClient.xhtml>

Taking advantage of these developments, it is easily possible to implement the solar agriculture feeder scheme, which entails deploying tail end solar PV power plants (1-2 MWs in size) dedicated for agriculture in areas where feeder separation has taken place. These plants are grid tied and supply day-time power for agricultural loads. Any excess generation from solar flows back to the grid. If the agriculture load is high, the grid provides the differential. Such an approach can be significantly more cost effective as compared to individual solar pumps and is more likely to be successful with respect to integrating energy efficiency into agriculture power usage. These plants could be set up as standard PPA based projects, and hence would alleviate need for upfront subsidy and would also qualify for meeting DISCOMs' solar purchase obligation.

While the cost of supplying power from the State discom is about Rs 6.5/unit and rising each year, the price for solar power is about Rs 3/unit, and fixed for 25 years. This saving of about Rs 2/unit translates to an annual saving of Rs 10,000/five HP pump. For a typical feeder with 500 pumps, this would save Rs 4.5 crore (in net present value terms) over 20 years. The Centre has proposed a similar scheme at the national level, namely, KUSUM, with a 10,000 MW target. A similar scheme is already being undertaken by Maharashtra under its Chief Minister's Solar Agriculture Feeder Policy (Mukhyamantri Saur Krushi Vahini Yojana)<sup>4</sup>. Currently, solar plants with overall capacity of around 2,000-3,000 MW are under various stages of tendering and implementation under this scheme in Maharashtra.

## 6 Management of surplus power

The state has been power surplus and in the last few years there have been projections for extent of surplus generation available for sale and the revenue that can be realised from sale of such surplus. Although no audited actual data is available, there seems to be quite a variation in the estimates made by the Commission and projections proposed by the licensees, as shown in Table 1.

**Table 1: Estimates regarding saving in power purchase cost through sale of Surplus energy**

| Particulars  | Commission's estimate in the previous tariff order <sup>5</sup> |            | Licensees' projections in the present petition |                    |                      |
|--|---|------------|--|--------------------|----------------------|
|  | FY 2016-17  | FY 2017-18 | FY 2017-18                                     | FY 18-19 (Revised) | FY 19-20 (Projected) |
| Total Surplus energy available (MU)  | 23,122  | 26,369     | 4,401  | 10,231             | 13,197               |
| Revenue from sale of surplus power (Rs Crore)                              | 2,075   | 3,882      | 1,121  | 2,661              | 4,308                |
| Total saving in power purchase cost from sale of surplus energy (Rs Crore) | 199   | 273        | 111  | -239               | 779                  |

As can be seen from the table, there is a wide variation in terms of the surplus energy that is available and hence the revenue that can be realised from the sale of the same. Further, the petitioner has stated that IEX rate for the past Twelve months (FY 2017-18) is observed to be at Rs 3.26 per Unit and the same has been used for projecting revenue from surplus energy. But there is

<sup>4</sup><https://www.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201706141206080310.pdf>

<sup>5</sup> For more details, please see page 49 of Order in Case No 73 of 2015: <http://www.mperc.nic.in/050416-PNo-73-2015-tariff-2016-17.pdf>

no explanation regarding the variation between the Commission’s projections for FY 2017-18 and the licensees’ revised estimate for the same year.

There has also been an increase in surplus generation available in FY 19-20 by around 3000 MUs more than what is projected in FY 2018-19. As noted in Table 93 of the petition in this matter, most of this increased in generation is from a few generating plants as shown Table 2.

**Table 2: Generating stations contributing to increase in power availability in FY 19-20**

| Station name                 | Normative Availability |                      | Net Availability   |                      | % increase in Net availability in FY 19-20 over FY 18-19 |
|------------------------------|------------------------|----------------------|--------------------|----------------------|--|
|                              | FY 18-19 (Revised)     | FY 19-20 (Projected) | FY 18-19 (Revised) | FY 19-20 (Projected) |  |
| NTPC Mouda II Unit 1         | 885                    | 1,086                | 181                | 1,086                | 500%   |
| Shri Singaji Phase-2, Unit-1 | 1,175                  | 3,138                | 1,175              | 3,138                | 167%   |
| Shri Singaji Phase-2, Unit-2 | 652                    | 3,138                | 652                | 3,138                | 381%   |
| NHDC Indira Sagar HPS        | 1,082                  | 2,156                | 1,082              | 2,156                | 99%  |
| Sardar Sarovar HPS           | 405                    | 1,283                | 405                | 1,283                | 217%   |
| NHDC Omkareshwar HPS         | 502                    | 986                  | 502                | 986                  | 96%  |
| Total                        | 4701                   | 11787                | 3997               | 11787                | 195%   |

As can be seen from the table, the petitioners have assumed the possibility of net availability being equal to normative availability in FY 19-20, though the same has not been demonstrated or considered in FY 18-19. It is not clear what factors have changed within a year to warrant such change in assumption.

Interestingly, the savings in power purchase cost from sale of surplus energy in FY 19-20 is significantly higher than what has been assumed in any previous year and hence the assumptions merit a more detailed scrutiny. Additionally, no data or analysis regarding the actual revenue realised in the past two years through sale of surplus power has been submitted.

Considering these aspects, the Commission should analyse this issue in greater detail and direct the licensees to transparently submit all the underlying data and assumptions. Given the various uncertainties regarding surplus generation and the revenue that can be generated by selling such energy, we feel that it is best to not account for it in a prospective manner as it often tends to artificially reduce revenue requirement. Unless the licensees are able to demonstrate any firm arrangements for sale of surplus power, it is best to consider the revenue from sale of surplus of actuals at the end of the year and during true-ups rather than projecting it as a revenue source at the time of tariff determination.

## **7 Power purchase cost**

Power purchase costs account for more than 80% of total ARR of the MP Discoms. Thus, any increase in power purchase cost directly gets reflected in the consumer tariff. In this regard, we wish to highlight two points:

### **7.1 Need for analysis of wide variation in power purchase costs in recent years**

As per the present petition, the fixed and variable cost of generation across different sources also seem to be varying widely, though no explanation for such variations has been provided. For example, between FY 17-18 and FY 18-19 there is a very sharp reduction (more than 50%) in the

fixed costs payments to central sector generating stations, but the same for the State Generating Company has increased by 7%. But in FY 19-20, the fixed costs again increase by about 46% for the central sector and 27% for the state sector. In spite of such huge variations, no information is provided to explain the reasons or underlying factors. The Commission should therefore analyse this issue in greater detail and provide a transparent and clear explanation for the reasons for such wide variations in the power purchase costs.

## **7.2 Flexibility in coal management not leading to improved availability or cost savings**

In May 2016, the Cabinet approved a proposal for allowing flexibility in utilization of domestic coal to power generating stations. This was done with an objective of reducing cost of generation. As per the approval given by the Cabinet, the Central Electricity Authority (CEA) was asked to issue a methodology for the implementation of the said proposal, after undertaking due consultation with all the stakeholders. Accordingly, in June 2016 the CEA issued a methodology for this purpose. From the above policy notification it becomes clear that the generating companies have flexibility in utilising their coal linkages in a manner that would allow them to optimize the overall cost of generation. In fact, the explicit aim of the policy is to reduce generation cost by rationalising coal linkages. However, it is not clear from the present petition whether and how much cost savings have been achieved because of this policy change. Considering this, the Commission should undertake a detailed analysis of merit order dispatch, actual fuel availability at the generating stations with lower variable cost, and evaluate whether the licensees are maximizing generation from their least cost units using the flexibility in coal utilisation.

## **8 Compliance with MOEFCC notification dated 7.12.2015**

The MOEFCC vide Notification dated 7.12.2015 has notified the Environment (Protection) Amendment Rules, 2015 amending the Environment (Protection) Act, 1986. Through the amendment, the existing/applicable environmental norms for all existing as well as future Thermal Power Projects stand amended. Under the amended norms prescribed by the MOEFCC Notification for compliance, all Thermal Power Plants have been categorised as:

- Units installed before 31.12.2003
- Units installed between 1.1.2004 and 31.12.2016 and
- Units which are commissioned after January, 2017.

However, it is understood that even a year after the timeline that was specified for compliance, many plants have not taken steps necessary for ensuring compliance. It is not clear whether the generating stations in MP have initiated any steps towards ensuring such compliance. Given the serious adverse environmental impacts of thermal generation, urgent steps should be taken to comply with the said norms. In any case, given the statutory nature of the said regulations, compliance is mandatory and not at the discretion of the generating companies.

Given the importance and urgency of the matter, and considering the fact that this issue is not limited to one of two projects, but concerns all the thermal power stations in the state, we request the commission to:

- Undertake a suo motu process to evaluate the status of compliance with the said MOEFCC regulations and formulate least cost plan for ensuring such compliance

- Through such suo motu process, the commission should also formulate a well-coordinated plan detailing out the shut-down schedules for installation & commissioning of various emissions control systems for all the thermal power stations in the state.

Such action would ensure a timely and smooth transition to the new norms and the state will not suffer from any shortages and/or high cost short-term power purchase as a result of this change.

## **9 Reporting formats for various key indicators of DISCOMs' financial position**

The tariff determination process for distribution companies is a consultative, public process where DISCOMs are held accountable for their performance and costs incurred. Therefore, as part of the process, substantial information is shared to aid regulatory assessment and decision making. In fact, tariff orders and petitions are among the few comprehensive, regularly updated sources of information on the state power sector, information on agricultural demand estimation, estimation of distribution losses, AT&C losses and progress under various central and state government schemes. The need for such information is also relevant for the emerging trends, which include:

- Migration of cross-subsidising consumers and sales of DISCOMs to open access, and especially captive options in Madhya Pradesh
- Sustained surplus power, the consequent backing down, revenue generated from sale of surplus
- Increase in liabilities, especially short-term working capital loans
- The major cost components and performance parameters need to be studied to identify reasons for the rising thermal generation costs including inefficiencies in operations, issues with coal quality and availability, coal transportation, changes in coal prices and applicable cesses

Hence, in order to have a meaningful participatory process it is of utmost importance to ensure adequate and timely data availability. In this regard, we have suggested data formats for various DISCOM parameters, which should be published by all ERCs to enable such meaningful participatory process. We would like to highlight this study and its findings, which we hope can be useful for the Commission in terms of designing appropriate data formats. The said report can be accessed through this link: <http://www.prayaspune.org/peg/publications/item/372-bricks-without-clay-crucial-data-formats-required-for-effective-tariff-processes.html>

We once again request the Commission to accept this submission and to allow us to make further submissions in this matter, if any.

Prayas (Energy Group)  
Pune  
23<sup>rd</sup> June 2019