

BEFORE THE RAJASTHAN ELECTRICITY REGULATORY COMMISSION

IN THE MATTER OF:

Comments/suggestions on Petitions by Rajasthan DISCOMs determination of
ARR and Tariff for FY 2019-20

Submissions of Prayas (Energy Group)

1 Approach and Perspective

The average cost of supply for DISCOMs in Rajasthan in FY18 as per audited actuals was unsustainably high at Rs. 7.22/kWh. For the year FY20 the average cost of supply is being projected at Rs. 8.45/kWh. To meet these expenses, the DISCOMs are proposing a 11% hike in tariffs on an average. Even though BPL consumers do not see change in tariff and industrial consumers do not see a change in energy charges, such a hike will continue to make DISCOM tariffs non-competitive and electricity unaffordable for many small and poor consumers. Even with such a tariff increase, the DISCOM can only reduce the revenue gap for FY20 rather than eliminate it.

Further, the cumulative revenue gap till FY16 was about Rs. 36,027 crores even after accounting for takeover of liabilities under UDAY and subsidy support from the Government of Rajasthan. This will further increase with the true-up of FY18 as well as the carrying cost and revenue gaps of subsequent years.

The outstanding working capital borrowing by the end of FY18 was about Rs. 24,962 crores as per DISCOM filings. This quantum is indicative of the financial strain and challenges in ensuring day to day operations forcing DISCOMs to forgo/postpone crucial expenses or provide poor supply and service quality.

The financial predicament of the DISCOMs will only worsen with increased migration of industrial and commercial sales to captive options. Even with the proposed increase in CSS and fixed charges, many consumers would find it lucrative to reduce their dependency on the DISCOM with MW and kW scale captive/rooftop solar options. The compelling economics which would encourage such a shift is described in greater detail in this submission. This also points to the fact that sales migration is inevitability with the current business model of the DISCOMs.

Such a move would increase uncertainty in demand and make the operations of the financially strained utility even more challenging. The fall out of these changes would be that with the loss of cross subsidy and in the absence of a substantial increase in government subsidy, poorer consumers will be subject to

higher tariffs or poor quality of supply and service in the years to come. Further, DISCOMs would find operations and planning challenging and would require periodic bailouts and be forced to manage stranded, high cost contracted capacity.

RERC and the Rajasthan DISCOMs should ensure that adequate steps are taken to protect in the interests of small consumers while ensuring the freedom of large consumers to opt for competitive supply options for durations greater than a year. This would help the DISCOMs plan for power procurement and electricity service delivery for a smaller base of consumers while industrial and commercial consumers can take the risk of arranging for supply options. Many of the ideas in this submission are keeping with this larger outlook and perspective in mind and focus on ensuring adequate revenue recovery for the DISCOM while encouraging long-term sales migration with equitable sharing of risks. There are also many ideas and suggestions with respect to tariff rationalisation in the face of shrinking cross-subsidy for the consideration of the Commission.

2 Estimation of demand

The DISCOMs have estimated robust growth in demand across categories for FY20 anticipating that many of the consumers who have opted for open access and captive consumption will increase their dependence on the DISCOM in coming years. Further, with significant increase in rural electrification in the recent past, domestic, small industrial and commercial consumer categories would also show increase in sales.

The sales growth estimated for FY19 shows a much slower growth for domestic, non-domestic, small industrial and medium industrial categories. While projecting robust future sales in these categories it would be critical to understand if the slow growth in this period for these consumers was due to poor supply quality, reduction in demand due to high tariffs or slow adoption of appliances in newly electrified homes and areas.

The DISCOMs estimate and project significant demand growth for medium, large industries, including the newly proposed 'power intensive industries' category. This needs to be evaluated given the fact that competitive alternate supply options are available to consumers via rooftop solar, captive and group captive options at Rs. 5/kWh or less. With the proposed tariffs, except agricultural and small domestic consumers all consumers will have energy charges which are at least 20% to 30% higher than this competitive price. Given the potential savings, even with payment of increased electricity duty, many consumers will find RE based captive power a viable option. The proposed increase in fixed charges by the DISCOM may even hasten the migration to captive sources for many. This is discussed in greater detail in Section 5.1 of this submission.

The Commission should evaluate the proposed increase in sales in various categories based on recent trends, price dynamics and feasibility of alternate competitive options given the tariff design adopted and the load patterns of consumers. This is critical as over-estimation of sales has significant impacts on revenue, power procurement costs, surplus or backed down capacity and will result in revenue gaps during the true-up process and increase in avoidable carrying cost which consumers have to bear in the

years to come. As part of the true-up and tariff determination process, the Commission has been tracking the extent of open access in the state. In the year FY18, it was about 3199 MUs comparable to about 27% of the HT Industrial sales. It is also critical to track trends in captive consumption to get a comprehensive understanding of sales migration and sales growth potential in the coming years.

Further sales should be reported separately for each HT category (especially HT 3, HT 5 and the proposed HT 6) to get a better idea of trends. It would be even more useful if these trends are reported on a voltage-wise basis.

Migration of sales especially using renewable energy and market based options, increased use of energy efficient appliances, solarisation of agricultural demand with the implementation of the KUSUM scheme, increased urbanisation and growth of particular load centres would also mean that the DISCOMs have to plan power procurement, network investments based on an understanding of load patterns and shifts. The DISCOMs have mentioned a load forecasting system as part of the future initiatives to ensure better operations. The Commission should direct the DISCOMs to ensure assessment of demand for tariff determination and power procurement, capex planning based on the results and analysis from the load forecasting system by FY21.

3 Estimation of agricultural demand

The DISCOMs have been consistently reporting significant increase of consumers in the metered category and even conversion of agricultural connections from unmetered to metered. In FY18, DISCOMs reported that only 8% of the agricultural consumers were in the flat rate category and 92% were metered. The consumers in the agriculture metered category even have energy charges levied on them per unit of consumption. However, the consumption for this category is estimated based on a norm for specific consumption in a manner similar to unmetered consumption. It is not clear if there is a reconciliation of sales based on metered data during the true-up process. Thus, the veracity of the agricultural demand estimates and therefore the distribution losses is doubted.

Given that agricultural demand accounts for 40% of the sales and is the predominant recipient of subsidies, the estimation of sales should be based on a more scientific and rigorous methodology. This is especially true as the demand estimations used have implications on revenue recovery, cross subsidy requirement, subsidy and distribution losses estimated.

It is likely that the metering has taken place at the DT level rather than at the consumer level. Even in such a case, feeder or DT energy input data should be used to estimate agricultural demand, especially given that feeder separation has been reported to have been implemented for 49% of agricultural feeders in Rajasthan.

The specific consumption norm used for metered consumers assumed by the DISCOMs for FY20 and calculated based on submissions of the DISCOM with the true-up petition for FY18 show a 4% to 6% reduction in the norm and a -5% to 4% variation in the average connected load. This is shown in Table 1 and the rationale for this change in the projections is not explained by the DISCOMs.

Table 1: Variation in specific consumption and average connected load

Particulars	FY18		FY20	
	Average connected load (kW)	Specific consumption (kWh/kW/consumer)	Average connected load (kW)	Specific consumption (kWh/kW/consumer)
JVVNL	7.60	1910	7.53	1,786
AVVNL	7.05	1705	6.67	1597
JdVVNL	18.01	1788	18.69	1,714

Further, the specific consumption norms used for unmetered category consumption has not been revised for many years. Given the changes in rainfall, cropping patterns, water use, it is suggested that the RERC commission a comprehensive study to assess agricultural demand to revise the methodology for estimation of demand. The study can make use of metered feeder and DT level energy input data and insights from field surveys. A similar exercise is being conducted for MSEDCL by MERC.

4 Tariff rationalisation for small consumers

The current and proposed tariff design are extremely inequitable as even non BPL consumers using 50 units and 100 units of electricity pay high tariffs. This is shown in Table 2. In fact, as the proportion of fixed charge in the monthly bills is significant, DISCOMs will be able to recover revenue even with poor quality supply and load shedding and the consumers will hardly have any incentive to ensure energy efficiency. In fact, on a per unit basis, a consumer using 50 units pays much higher tariffs than consumers using 100 units of electricity.

Table 2: Illustrative example of highly inequitable tariff design for domestic consumers

Monthly consumption of domestic consumer (kWh per consumer)	Current average tariffs (Rs./kWh)	Proposed average tariffs (Rs./kWh)	% of fixed charges in total bill with proposed tariff
50 kWh	7.85	10.35	44%
100 kWh	6.98	8.05	29%

The tariff design is also such that there is a sharp increase in tariffs, especially fixed charges for all units of consumption with increase in every 150 units of consumption. Such a design could adversely reduce revenue recovery for the DISCOM. This is because many consumers, in order to reduce their monthly bills have a perverse incentive to indulge in practices such as meter splitting and meter tampering. It would be onerous for the DISCOM to track for every household in the state. The incentive will even be stronger with the proposed increase in fixed charges for domestic consumers.

As such a tariff design is in place for NDS consumers as well, the same incentives for meter splitting and tampering could reduce revenue recovery. The current tariff design for NDS consumers would also adversely impact small enterprises and home-based enterprises who could find electricity unaffordable for productive activities. In order to ensure provision of affordable power for small consumers while ensuring revenue recovery of DISCOMs, we suggest the following:

4.1 Variation in fixed charges on the basis of connected load

The tariff design can be changed such that the change in fixed charges is not on the basis of consumption but the connected load. Further for each kW based sub-category, the consumption slab-wise tariffs can be different. This will ensure that large consumers with significant load pay higher tariffs. Other than small consumers with a connected load less than 2 kW, fixed charges can also be charged on a per kW basis.

4.2 Introduction of annual consumption limits for BPL consumers

Many Saubhagya consumers, though poor may not be BPL cardholders. Nevertheless they are deserving of power at concessional rates to ensure benefits of electrification are realised. However, such consumers in the proposed tariff structure would be paying more than Rs. 10 per unit of consumption as shown in Table 2. Therefore, it is crucial that deserving consumers are not excluded from receipt of concessional tariff. Therefore it is suggested that all consumers using less than 50 units per month are charged BPL tariffs as they are deemed electrically BPL. Thus the concession would not be restricted to just BPL cardholders.

Further, to ensure that such consumers do not face tariff shock when their consumption exceeds 50 units in any month it is suggested that the consumption limit be defined on an annual basis (i.e: 600 units per year). If the annual consumption in the past year was more than 600 units, the consumer can be charged non-BPL tariffs. For new connections, all units can be charged at BPL rates for the first year till the 600 unit threshold for the year.

4.3 Reduction in fixed charges for small domestic consumers

As shown in Table 2, about 30% to 45% of the revenue recovered from small domestic consumers is from fixed charges. As this is inequitable, it is suggested that tariff design be changed such that the revenue from fixed charges for small consumers is limited to 14 to 15% of the total ABR. Such a proposition can be revenue neutral while ensuring small consumers are protected from tariff shock.

4.4 General category tariffs

Many small consumers, especially home-based commercial enterprises and small industrial units with a connected load less than 2 kW and monthly consumption less than 200 units are subject to significant harassment by DISCOM officials due to unauthorised use. Currently, with NDS connections, these consumers will be paying about Rs. 8.9 /kWh and with the proposed tariff they would be paying about Rs. 9.5/kWh. In order to ensure affordable tariffs for these consumers and to promote productive activities in rural areas, it is suggested that:

- All domestic, commercial and industrial consumers with connected load less than 2 kW and monthly consumption of less than 200 units is charged the same telescopic tariffs which is similar to domestic tariffs.
- The tariffs can increase with increase in consumption based on consumption slabs
- Consumption of more than 200 units can be charged tariffs that are not similar to domestic tariffs but are higher such that the tariff design is revenue neutral.

4.5 Inflation linked tariff increase for small consumers

Small consumers such as the consumers with connected load less than 2 kW and consumption less than 200 units should not be subject to tariff shocks and yet it is vital that these consumers are subject to steady increase in tariffs over time. It is suggested that the tariffs increase for these consumers can be linked to inflation. Such a shift would ensure automatic and certain tariff increase for these categories while protecting these consumers from tariff shock.

5 Tariff design options for industrial and commercial consumers

Non domestic consumers and industrial consumers form bulk of the cross-subsiding consumers of the DISCOM. Thus, in the current business model, DISCOMs depend on these consumers to meet their revenue requirement. However, the tariffs for many of these consumers are already non-competitive as compared to alternate option of supply. Thus, with increase in tariffs there is a high chance that many of these consumers will opt for captive or open access options to meet their demand.

Many of these consumers opportunistically switch between the DISCOM and market options and reap the benefit of cost saving while DISCOMs bear the risk of power procurement planning and scheduling with uncertainty in demand. In order to evade CSS, many consumers also find group captive and renewable energy based captive options are lucrative options.

The tariff design approved by the Commission should be such that it considers the revenue recovery potential given the possibility of sales migration while ensuring that there is equitable risk sharing between consumers and the DISCOMs. Given this, we suggest the following:

5.1 Rationalising of fixed charges for commercial and industrial consumers

The proportion of fixed charges in the total tariffs are already high in the existing tariff design. The DISCOMs have proposed about 40% increase in the fixed charges for HT commercial and industrial categories while keeping energy charges the same. While many consumers decide to shift towards open access given the relative savings with the market price of power and the applicable open access charges as compared to the regulated DISCOM energy charges, the increase in fixed charges could lead to a shift towards captive consumption. Thus, counter-intuitively, consumers could further reduce their demand from DISCOMs with this strategy.

Table 3 shows that the annual fixed cost payments which a typical consumer with a sanctioned load of 1 MW across various HT categories would vary between Rs. 27 lakhs to Rs. 42 lakhs which is comparable to 7% to 11% of the fixed cost payments required to set up a MW scale captive plant. Given that land is

available, such consumers, without paying CSS can invest in a captive power plant to meet part of their demand. Increasing fixed costs would make the economics of such investments more compelling in the years to come.

Table 3: Annual fixed cost payments compared to the capital expenses for 1 MW solar plants

Category	Fixed charges (Rs/kVA)	Annual fixed cost payments (Rs. Lakhs)	Annual fixed cost payments as a percentage of capital expenses for a 1 MW solar plant
Medium Industrial Service	230	27.6	7%
Large Industries	270	32.4	8%
Power Intensive Industries	350	42	11%
HT Non Domestic	380	45.6	11%

Given the increasing cost of supply of the DISCOMs, retaining such consumers would require efforts by the DISCOM in the medium term. Thus, strategies to ensure long term migration of such consumers should be rolled out by the Commission and the DISCOM.

5.2 Rebate to industrial consumers

The proposal of the DISCOMs to provide a rebate in energy charges to consumers for the next five years is a good and desirable strategy to retain industrial consumers in the medium term. For new connections, the proposal to ensure all units are applicable for the rebate in the first years and only incremental units have the rebate in subsequent years would be operationally less challenging to implement and should be adopted.

5.3 ToD metering for > 10 kW consumers and rooftop solar

The DISCOMs have proposed the implementation of ToD tariffs for HT-5 consumers. Given the increase in off-peak surplus, proliferation of captive and open access use from renewable energy technologies, shift of agricultural demand to day time with the implementation of KUSUM and the importance of managing evening peaks with increased electrification, introduction of ToD tariffs is crucial.

In fact, given the recent advances and significant cost reduction in metering technologies, it is suggested that all consumers with a connected load greater than 10 kW should have ToD meters installed within a two year time-frame and should be subject to ToD tariffs. This is crucial as many LT consumers can also be incentivised to shift their loads to off-peak times.

In addition it would also be crucial to ensure ToD based metering and billing for all consumers opting for kW scale grid connected PV options. This would enable Rajasthan DISCOMs and the RERC to understand and better manage shifts in the load curves.

5.4 Introduction of seasonal tariffs

Given the significant renewable energy capacity in the state, the DISCOMs face peak shortages in some months and surplus power in others. Introducing seasonal tariffs could also help shift load based on

availability of generation. Such tariffs can be applicable on all consumers with a connected load of greater than 10 kW.

6 Managing open access and captive consumption

Given that sales migration is bound to increase given the high tariffs of the DISCOM, it is essential that the shift takes place on a long-term basis rather than short-term. This would enable DISCOMs to better manage power procurement and operations. However, consumers find it difficult to avail open access due to various procedural and administrative hurdles. This uncertainty also makes consumers hesitant to bear the risk of longer term migration. Given these challenges some steps to ensure revenue recovery for the DISCOM while encouraging long term open access are listed below:

6.1 Proving certainty and reduction in effective CSS

The DISCOMs have proposed to fix the cross-subsidy surcharge (CSS) based on the methodology prescribed by the National Tariff Policy. However, unlike what the policy prescribes the CSS rates calculated are not subject to a ceiling of 20% of the average billing rate of that category. Table 4 summarises the variation in CSS with and without the 20% ceiling being applicable.

Table 4: Variation in CSS

Category	Voltage (kV)	Proposed Tariff (Rs./kWh)	CSS at Proposed Tariff calculated by DISCOMs (Rs./kWh)	CSS with applicability of ceiling at 20% of average tariff
LIP / Power Intensive Industries	132	9.32	3.68	1.86
	33	9.42	3.54	1.88
	11	9.71	2.09	1.94
Mixed Load-HT	132	9.05	3.41	1.81
	33	9.14	3.26	1.83
	11	9.42	1.81	1.88
NDS-HT	132	11.9	6.26	2.38
	33	12.02	6.14	2.40
	11	12.39	4.78	2.48

SERCs need not be bound by the methodology prescribed by the National Tariff Policy and should determine CSS based on the realities in the state. Given increasing cost of supply, a low CSS may not adequately compensate the DISCOMs for loss of revenue. At the same time, consumers have no certainty on the applicable CSS as there could be a significant revision in the subsequent year. This uncertainty disincentivises consumers from applying for long/medium term open access and signing long/medium term power supply agreements. Therefore, SERCs should fix the CSS for a three to five year period (say, at Rs.3/kWh). As the value is fixed for a five year period, the value of the CSS will reduce in real terms, even if remains the same in nominal terms. This would make open access more

lucrative for consumers in the future and ensure Rajasthan DISCOMs increase efficiency in the medium term. It is suggested that the DISCOM adopt this methodology for finalising CSS for the year FY20.

6.2 Need to 'actively discourage' short-term open access

About 76% of sales to open access consumers is via short-term open access. To mitigate the risks to power purchase planning and scheduling faced by the DISCOMs due to short-term open access, measures can be undertaken to limit the duration of open access to 1-2 days instead of one month. This would help cater to contingent and unavoidable requirements for short-term open access. Further, any repeat application during a year for short-term open access by a consumer should be charged progressively higher wheeling and transmission charges till these charges are doubled for the fourth application by the same consumer in the year. Such a move would force consumers to choose medium term open access for a period of 1-5 years instead of applying multiple times in a year for short-term open access. Such changes would require an amendment of the RERC open access regulations.

6.3 Streamlining of administrative processes for captive and open access

The administrative process for open access and captive can be simplified by instituting a portal to enable online filing of applications and for checking the status of the application along with delays vis-à-vis stipulated timelines. This could be instituted on the lines of the National Open Access Registry proposed by CERC. In addition to open access consumption and scheduling, the portal can also monitor captive consumption and compliance to ensure captive status. The DISCOMs, SLDC, RVPN and RUVNL can have administrative access to the portal to ensure smooth operation with unique IDs and access for each consumer, trader, and generator.

6.4 Differential bulk supply tariff for applicability of power procurement costs

Rajasthan DISCOMs have proposed to adopt Differential Bulk Supply Tariff (DBST) such that the average power purchase cost for each DISCOM is based on their revenue recovery. Thus, DISCOMs with high cross-subsidised sales will be charged lower APPC than DISCOMs with high HT sales. While such a methodology seems equitable, it needs to be evaluated and reviewed in the light of increased sales migration and potential reduction in agricultural demand due to solarisation with the implementation of the KUSUM scheme. The implementation also needs to be reconsidered given that even with variation in a large proportion of the costs; the tariffs to be charged by the DISCOMs will be uniform across the state.

Based on the estimation methodology proposed by the DISCOMs, a 10% reduction in revenue in one DISCOM due to increased sales migration can change the DBST by -32% to 15%. With uniform tariffs, this could lead to undue estimation of revenue gaps for one DISCOM over the other. It is suggested that the power purchase cost levied be reflective of the costs incurred by the DISCOMs and shared on the same basis as is currently in practice.

7 Review of functioning of distribution franchisees

Appointment of distribution franchisees could be one way to manage operations and revenue collection given the varied challenges being faced by the DISCOM. Rajasthan DISCOMs have already appointed

franchisees and have plans to appoint many more in the near future. Given this trend, the Commission should conduct a review of the functioning of franchisees operating in the DISCOM licensee area particularly with respect to adherence to the DFA. This is crucial given that there have been experiences elsewhere in the country where franchisees had to be removed due to defaults in payments or other issues. In addition, it is also critical that the Commission directs the DISCOM to submit performance reports based on the SoP regulations for the franchisee area separately such that the Commission can track quality of supply and service in these areas and ensure the welfare of licensee consumers in the franchisee area. This is critical as the DISCOMs are deciding to appoint more franchisees to manage networks and revenue collection in the state.

8 Adoption of Pre-paid metering

In order to help in improved revenue realisation, the DISCOMs have advocated for pre-paid metering in the coming years in the state. While it is true that the shift to pre-paid metering may reduce some issues with non-payment or delayed payment of bills, it is not clear if the distribution system is ready for such a major change at the moment. There is lack of clarity on several procedural and implementation questions, crucial to consider with large scale implementation which needs to be established after several pilots and significant discussions. Some of them include:

- a. **Mechanisms for recharge of pre-paid meters:** If all recharges are to be based on USSD codes, then the mechanisms or plans to ensure service in remote areas without the necessary telecommunications infrastructure is not clear. If the recharge is to be based on coupons available at stores, it is not clear if it will be available at the DISCOM bill collection centres or with *kirana* stores or how the necessary networks will be built in such a short span of time to ensure universal and convenient access.
- b. **Plans to ensure reliable supply in case of meter failure, recharge failure etc.:** The possibility of meter failure is there even with pre-paid meters and meter replacement could take time. Further, it is also possible that consumers do not have access to recharge facilities for prolonged periods (network failure, remoteness of village/habitation). In such cases, it is likely that the consumers will experience prolonged hours of outages as the plan to ensure supply under such circumstances is not clear.
- c. **Reduction of theft:** Pre-paid meters may not be able to address certain issues such as the risk of consumers bypassing the meter. It is also possible that with reduced visits of meter readers to the premises, such instances may increase. Thus, pre-paid meters may not be able to reduce theft as intended.
- d. **Energy accounting by DISCOMs:** Pre-paid meters deployment at a large scale and at low cost, may not be able to record consumption data which is communicated to DISCOMs to aid energy accounting. This will make the assessment of energy audits, monthly or division-wise losses onerous. DISCOMs might be forced to rely on billing data from a system which may need time to become robust to provide this information.

Therefore, large-scale implementation should only take place after many pilots have been completed in multiple states with a representative consumer mix, including newly electrified consumers, agricultural

consumers and consumers in high loss areas and remote areas. Large scale implementation should only take place after the lessons and observations from such pilots are documented, shared publicly and incorporated into the plan.

9 Electric Vehicle charging and clarity on charging stations

The DISCOMs have proposed that the tariffs for electric vehicle charging under the mixed load category. It is suggested that the Commission approves a new consumer category for EV charging as in other states. The category can be charged tariffs at average cost of supply for the first three years. A consumer charging at home or using their existing electricity connections should be allowed to do so after appropriate enhancement in sanctioned load. The tariffs should be reviewed after three years based on the trends and increase in sales in this category.

The Commission should also clarify that the DISCOMs can set up EV charging stations as a non-regulated business as long as that business pays the licensee supplying electricity regulated tariffs and also pays rent for the land leased by it for setting up charging stations. The rents should be accounted for in the ARR as non-tariff income but the charging station itself should operate as a non-regulated business.

10 Virtual net metering

State or public entities which are consumers of the DISCOM such as government offices, offices of urban and local authorities, public auditoriums, public schools, hospitals and public water works often have poor collection efficiencies with significant delays in bill payment. However, as they provide essential public services, ensuring these consumers have reliable supply is of critical importance. RERC and the DISCOMs can capitalise on the recent reduction in costs for rooftop solar systems and ensure that demand of these consumers is mostly met via PV systems with virtual net metering mechanism. With such a mechanism, these public bodies can obtain credits on their electricity bill for photo-voltaic systems that are installed off-site and shared among multiple users (other public services). This will enable such consumers to obtain power at fixed rates. Further the DISCOM can report consumption to meet their RPO requirement.

11 Need for implementation of MYT framework

The implementation of an Multi-Year Tariff framework is crucial in the current sector context with increasing sales migration and resultant loss in cross-subsidy revenue, increasing cost of supply, and the expected increase in demand on account of large scale household electrification.

With fast paced changes taking place in renewables and storage, it is crucial for the regulatory commission 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 to adapt to this changing environment.

The MYT regulations provide generators and licensees the choice to opt for an annual or multi-year tariff and cost determination process. As DISCOMs are not opting for a multi-year framework it makes

medium term planning for power procurement strategies, managing sales migration, evaluating impact of tariff design changes and holding the DISCOMs accountable for performance and efficiency improvements challenging. Further, lack of certainty in costs and tariffs in the medium term does not provide an environment devoid of regulatory risk which investors and consumers require to aid a financially viable and equitable transition for the sector, particularly the DISCOMs.

The commission should amend Regulation 5(4) of the RERC (Terms and Conditions of Determination of Tariff) Regulations, 2019 such that generators, SLDCs and licensees all have to file MYT petitions without the option of filing annual petitions as is currently the case. This would help usher in more sound and robust medium-term planning and performance assessment processes. The Commission can also determine CSS, wheeling charge and tariffs for the control period of 3 to 5 years providing investors and consumers with price and regulatory certainty. At the same time, crucial performance parameters can also be evaluated over a three to five year period vis-à-vis trajectories specified by the Commission to incentivise efficiency improvements.

12 Commission to publish a white paper on challenges before the DISCOM and seek stakeholder comments

It is clear that the DISCOMs are under severe financial stress and measures need to be taken to reduce the average cost of supply and manage operations with the loss of cross-subsidising revenue. There is a need for a comprehensive plan and strategies to ensure the DISCOMs' financial predicament do not worsen with the advent of competitive solar options and increasingly viable storage options. Such a plan would also need to have strategies and actions in place to ensure the demand for affordable, reliable power by newly electrified households, small homes and enterprises are also met.

In this context it is suggested that the RERC commission a study to assess strategies needed for the next 3-5 years by the sector which includes:

- Assessment of demand based on macroeconomic indicators, progress of government development programs, environmental/resource factors, historic trends of sales, elasticity of sales to tariffs, historic trends of migration of consumers to open access and renewable options, change in appliance usage and load patterns etc.
- Assessment of least cost supply options catering to this demand considering the impact of increased uptake of renewable energy technologies.
- Assessment of impacts of various tariff design and business models to ensure revenue recovery for the DISCOMs while encouraging broadening and deepening of competitive markets in the sector.

The study can present various models and scenarios to assess optimal strategies for the state and can also assess the impact on power availability, costs, tariffs and losses for the DISCOMs.

Such a white paper can be uploaded on the Commission's website for public consultation and once finalised can form the basis for the Multi Year Tariff process for a control period of three to five years from FY21.

Adoption and implementation of these ideas and may not address the immediate challenges of managing past dues and existing high cost power procurement but will be necessary to ensure a less painful transition (driven by sales migration and proliferation of low-cost RE technologies) in the sector in the coming years.

Unless guided by conscious policy decisions, these changes will unfold chaotically, leaving the distribution companies stranded with excess capacity and huge losses. The sufferers of such fallout will be mostly small and rural consumers with serious implications for state level politics. To avoid such consequences, it is extremely important that distribution companies, regulators, and policymakers begin acting at the earliest.

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